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Editorial

Understanding *A Suicide* Versus Understanding *Suicide*

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Research and theory in suicidology are concerned with understanding suicide and, most of time, do a pretty good job of this. Durkheim's (1897) classification of four types of suicides (or cultures and subcultures) has been cited extensively and applied to many situations, such as suicide terrorists who have been classified as altruistic by many commentators, perhaps erroneously (Lester, 2021). Joiner's (2005) Interpersonal Theory of Suicide (IPTS), although criticized, is the most studied theory in the 21st century and typically receives empirical support.

A researcher might take a sample of individuals, say college students, and give them a measure of suicidal ideation, thwarted belongingness, perceived burdensomeness and the acquired capability for self-harm, and find the positive correlations as predicted by the theory. It looks like we may have contributed to an understanding of suicide.

But……

First of all, social science is not a science. Chemicals dissolve, explode, combine, etc. Objects on earth obey gravity. Even light waves obey gravity - hence we can see stars that are behind objects such as the moon. Physics and chemistry are sciences. Psychology and sociology are not sciences. Every result has a probability of being correct and also of being wrong. Therefore, social facts are not the same as physical science facts. Newton did not say, if I let go of this apple, I am 95% certain that it will drop.

Second, research in suicidology, like research into other psychological and sociological topics, is a game. Look at how many useless articles have appeared in 2020 and 2021 on covid-19. Researchers saw an opportunity for a quick article, enhance their resumé and improve their chances for tenure and promotion. Do we really need competing fear of covid-19 scales, let alone one? Only the researchers developing vaccines (chemists and biologists) performed useful work. The same is true of most suicide research. Let me get a sample, administer several tests of risk

factor for suicide, and publish the results. Another paper, but no contribution to even understanding *suicide*.

Third, there is a difference between research and real life. Lester and Gunn (2021) studied the lives of 72 famous suicides, famous enough to have biographies written about them. The research found that perceived burdensomeness was not common in the motivations for their suicides. It was found in only 15.3% of the cases. However, there were cases which conformed to Joiner's theory, Jerzy Kosinski for example. Does the IPTS explain Kosiński's suicide? Read his biography, or my essay based on the biography, and you will see that his life was far more complex than three psychological constructs.

Recently, in two books on *Katie's Diary* (Lester, 2004; Gunn & Lester, 2022), because I could not get volunteers to write a chapter applying the IPTS to Katie, I wrote the chapter. It was possible to find passages in Katie's diary that supported all of the constructs proposed by the IPTS: thwarted belongingness, perceived burdensomeness and the acquired capability for self-harm. However, on reading the other chapters in the two books on Katie, I realized how the IPTS did not account for Katie's suicide. Yes, those three constructs were present, but I still wondered why she chose suicide.

The other chapters, written more from a phenomenological point of view, made her suicide much more understandable. Katie's mind and social surroundings were so much more complex than three simple constructs. In the first book on Katie, one contributor explored the role of God in Katie's life and death, another her irrational thinking, and another the voices in her mind that communicated with her. In the second book, contributors discussed Katie's life and suicide from the perspectives of Gestalt psychology, transactional analysis, and meaning-making (the establishment of an internal order of the world which gives a feeling of predictability and control). As I read and edited those chapters, I felt that I had a much better understanding of why Katie chose to die by suicide. I even developed the feeling that her suicide was *inevitable*, a feeling I did not get from my chapter on the IPTS.

Therefore, we are skilled in playing the game of research apparently oriented toward understanding *suicide*. But *individual suicides* are too complex to be understood based solely on that research.

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ABORTION AND SUICIDE: A STUDY OF THE AMERICAN STATES

DAVID LESTER & STEVEN STACK

Abstract: In a study of the 48 contiguous continental American states, abortion rates were found to be negatively associated with male suicide rates. However, abortion rates were clustered with variables associated with urban and wealth, indicating that it not abortion rates *per se* that might impact suicide rates but rather urban/wealth variables in general

The aim of the present study was to explore whether the abortion rate in the states of America has an impact on the suicide rate in America. At the national level, Lester (1992) found that the passage of Roe versus Wade in the United States in 1973, which made it much easier to obtain abortions nationwide, resulted in a decrease in neonatal murder. The murder rate of newborns in the first hour of life declined from 1.41 per 100,000 per year to 0.44, and the murder rate in the first week declined from 2.07 to 0.86.

Lester (2025) then examined whether the passage of Roe v Wade had an impact on female suicide rates. Comparing the same two time periods (1963-1972 and 1974-1983), he found that the suicide rates of women aged 25-34, 45-54, 45-74 and 75+ did not change significantly, the rate for women aged 15-24 increased and the rates of women aged 35-44 and 55-64 declined. There was, therefore, no consistent pattern.

It must be remembered that many socio-economic variables were changing during this period, and these also may impact the suicide rate. For example, Lester and Yang (1998) found that for the period 1950-1985, the American suicide rate was positively associated with divorce rate and negatively with the marriage and birth rates.

In the United States and looking broadly at the total crime rate, Donohue and Levitt (2001) found that states with high abortion rates in the 1970s and 1980s experienced greater crime reductions in the 1990s. They suggested that reducing the number of unwanted children was the possible reason for this decline in crime.

Later, Donohue and Levitt (2020) updated their data set and concluded that crime fell roughly 20% between 1997 and 2014 as a result of legalized abortion.

Lester and Stack (2025b) conducted a parallel study of whether suicide rates would change as a result of legal abortions. Would states with high abortion rates have lower youth suicide rates some 15-20 years later. The data indicated that state abortion rates and suicide rates were both stable over time, and the state abortion rates were negatively associated with the suicide rates of most age groups, suggesting that more broad social characteristics are involved in the negative association between abortion rates and youth suicide rates, and the same conclusion is warranted for the results from Donohue and Levitt's studies. Donohue and Levitt's proposal of causal connection may be invalid.

What about regional studies of the association of abortion rates and suicide rates? In a sample of 62 countries, Kim (2021) found that the suicide rate was associated positively with the abortion rate and with alcohol consumption positively, and the fertility rate negatively (but not with the homicide rate or GDP per capita).

Lester and Stack (2025a) studied the 48 continental contiguous American states in the year 2000. They found that the suicide rates of males and females were negatively associated with the abortion rates for residents, but significantly so only for males.

Many societal variables are inter-correlated. Therefore, an association between two variables may be misleading. For example, Lester (1995) found that the divorce rate in the American states was positively associated with the overall suicide rate. In addition, Lester found that the divorce rate was associated with the suicide rate of the divorced, as expected, but also with the suicide rates of the single, married and widowed. Therefore, it is not divorce *per se* that is associated with the suicide rates but, rather, the divorce rate of the American states is a measure of a broader societal characteristic such as social disintegration.

Steve Taylor (1990) and Ferenc Moksony (1990) argued that sociologists have not studied the effect of society *qua* society on suicide rates. Rather, sociologists have studied the impact of social variables as causal agents in themselves on the suicide rate of individuals in the society. Is there any research which might satisfy Taylor and Moksony?

Lester (1994) suggested that social variables could be subjected to a factor analysis in order to identify factors, or clusters, of related variables. The factor scores can then be correlated with the suicide rates. Lester found that a cluster of variables including divorce rates, rates of interstate migration, and church attendance correlated most strongly with the suicide rates of the states of the USA. Lester's study does not imply that any of these three variables is more important than the other two in this association. It also does not imply that these three social variables cause the state suicide rates. Rather the study implies that there is a broader social characteristic, manifested in the states' divorce rates, migrant composition and religious patterns, which is associated with suicide rates. This higher order characteristic, whatever it may be called (though low *social integration* seems a good possibility) seems close to satisfying Taylor's and Moksony's requirement for *a societal* or *area* effect.

The results of the study by Lester and Stack (2025b) discussed above, which found that abortion rates and suicide rates in the American states were stable over a long period of time suggests that abortion rates may be merely another indicator of a broad social characteristic of the American states. The present study was designed to explore this possibility. In a broad set of socio-economic variables, how many factors would be extracted, and on which factor would the abortion rate load?

Method

The first decision made was to use only the 48 contiguous continental states. Alaska and Hawaii are far from the mainland, and movement between the contiguous states is much easier than between Alaska and Hawaii and the mainland.

Second, conducting this type of research in 2025 is much more difficult than in the pre-Internet age. In 1980 and 1990, printed books appeared from the federal government regularly with detailed data on the United States and the individual states. Today, the data is online and not as complete as it was in the past. This is complicated by the refusal of states to report state data to the federal government. For example, not all states now report their yearly divorce rate to the federal government. This limits the variables available for use.

Data for 16 variables were found, and the justification for some socio-economic variables is mentioned in the Introduction above. For some of the other variables, Voracek’s (2007) found that some estimates of state IQ were positively

associated with suicide rates, while Lester and Tavakkol (2023) found that, the higher the percentage of left-handers in the states, the lower the suicide rate in the year 2000. These variables were, therefore, included in the predictor variables for the present study. Some of the variables used were obtained from a data set provided by Ian Rocket.

Results

Table 1: Factor analysis of predictor variables

	Factor 1	Factor 2	Factor 3	Factor 4
Femlaborforce	+0.38	-0.01	-0.77#	-0.09
% black	-0.86#	+0.22	+0.14	+0.21
Latitude	+0.82#	-0.02	-0.40	+0.05
IQ	+0.60#	-0.01	-0.67#	+0.19
Southernness	-0.73#	-0.16	+0.45	-0.20
% non-religious	+0.87#	+0.29	-0.04	+0.19
% poverty	-0.52#	-0.39	+0.69#	+0.01
Abortion rate	+0.04	+0.80#	+0.19	+0.14
Income	+0.32	+0.72#	-0.53#	+0.04
Dep ratio	-0.03	-0.78#	+0.07	-0.14
% rural	+0.10	-0.89#	-0.14	+0.04
Unemployment	+0/01	+0.23	+0.72#	-0.28
% not married	-0.17	+0.35	+0.61#	+0.51#
Longitude	-0.25	+0.19	-0.19	+0.86#
Birth rate	-0.41	+0.21	+0.06	-0.75#
% lefties	+0.31	+0.46	+0.06	+0.68#
Eigenvalues	5.88	3.61	1.89	1.37
% variance	36.77	22.54	11.81	8.57
Correlations				
Suicide rate	+0.10	-0.50***	`+0.19	-0.43**
Male sui rate	+0.12	-0.56***	+0.19	-0.38**
Female sui rate	-0.07	-0.21	+0.23	-0/58***
Male/Female ratio	+0.30*	-0.45***	-0.14	+0.34*
Male-Female rate	0.17	-0.61***	+0.15	-0.28
Factor label	Not Southern	Urban wealthy	Unemploymernt	East coast

* p<05
** p<.01
*** p<.001 # loading >0.50

A Principal Components Extraction and Varimax rotation identified 4 factors (see Table 1) which may tentatively be labeled: not Southern, urban/wealthy, unemployment rate, and East coast. The factor score for urban/wealthy was associated only with the total and male suicide rates (positively), whereas the factor score for East coast was associated with the total, male and female suicide rates (negatively).

The Pearson correlations between the 16 predictor variables and the suicide rates are shown in Table 2. Eleven of the 16 variables were significantly associated with at least one of the five suicide rate measures. Incidentally, stepwise, forward and backward linear multiple regressions were examined using all 16 predictor variables and the five suicide rate measures. Abortion rates did not play a significant role in any of them in predicting suicide rates.

Table 2: Correlations between predictor variables and suicide rates

	Suicide rates				
	Total	Male	Female	Male/Female	Male-Female
Femlab	-0.01	-0.01	-0.17	+0.29*	+0.04
% black	-0.29*	-0.29*	-0.12	-0.24	-0.31*
Latitude	-0.11	-0.07	-0.31*	+0.42**	+0.01
IQ	-0.23	-0.23	-0.36*	+0.29*	-0.17
Southernness	+0.31*	+0.29*	+0.43**	-0.34*	+0.22
% non-religious	-0.02	-0.01	-0.12	+0.21	+0.04
% poverty	+0.22	+0.23	+0.20	-0.03	+0.22
Abortion rate	-0.31*	-0.35*	-0.14	-0.31*	-0.38**
Income	-0.45***	-0.49***	-0.32*	-0.14	-0.49***
Dep ratio	+0.50***	+0.52***	+0.32*	+0.24	+0.54***
% rural	+0.44**	+0.51***	+0.09	+0.57***	+0.59***
Unemployment	-0.04	-0.08	-0.19	-0.41**	-0.16
% not married	-0.23	-0.23	-0.22	-0.03	-0.21
Longitude	-0.62***	-0.60***	-0.57***	+0.07	-0.55*
Birth rate	+0.21	+0.15	+0.48***	-0.47***	+0.03
% lefties	-0.40**	-0.39**	-0.38**	+0.07	-0.35*

* p<05
** p<.01
*** p<.001

Discussion

The present study found that male suicide rates are lower in the more urban/wealthy states, while both male and female suicide rates are lower in the

states toward the east of the United States. Note that these labels are attempts to characterize the four clusters of variables. It can be seen that the results also support our proposal that the variables that characterize the states are clustered and, there, it may be a mistake to focus on just one or two variables as the critical ones for predicting the suicide rate.

The relative differences between male and female suicide rates can be expressed as a ratio of the two rates or the difference between the two rates. The ratio is lower in the more urban and wealthy states and the absolute difference is higher in the East coast cluster of variables.

The aim of the study was also to examine the association of abortion rates and suicide rates. The abortion rate was negatively associated with the male suicide rate but not significantly associated with the female suicide rate. In the factor analysis, the abortion rate was clustered with other urban/wealthy variables. This indicates that it is, most likely, an error to draw a causal connection between abortion rates and suicide rates.

Future research might examine additional predictors from Rockett et al (2022) which were significant correlates of state suicide rates. Rockett, et al. also calculated a self injury mortality measure which adjusted suicide rates by adding an estimate of hidden suicides that may be misclassified as drug overdose deaths. For the self-injury mortality rate, Rockett, et al. found that none of the predictors of the suicide rate remained significant, and the predictors for the self-injury mortality rate included the percent nonreligious, labor underutilization, percent manufacturing employment and the homelessness rate.

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Can Animals Die By Suicide? An Unanswerable Issue

David Lester

Abstract: Lester reviews views on whether suicide in animals occurs and argues that whether suicide occurs in animals is an unanswerable question.

There has been some discussion of whether animals can die by suicide (Preti, 2007; Peña-Guzmán, 2017 ; Sope & Shackelford, 2018). Preti (2007) could find no evidence for suicide in animals, but he did propose that self-endangering behavior in animals might support the possibility that animals can die by suicide. Peña-Guzmán (2017) argued that animals do show negative emotions including helplessness, lethargy, as well as symptoms of depression such as chronic anxiety, aggressiveness, sleep problems, and anhedonia. Animals also show psychopathological behavior such as traumatic stress disorder, eating disorders, and anti-social behavior. Suicide, therefore, may be possible in animals.

In a response to Peña-Guzmán, Soper and Shackelford (2018) argued that suicide in animals does not occur and had never been observed by farmers, animal breeders, naturalists, and scientists. The argument by Soper and Shackelford is limited by the important question: how could animals die by suicide? The methods used by humans are not available to animals, such firearms, hanging, and overdoses of medications. There are methods available such as drowning but even in humans, medical examiners have difficulty deciding whether a drowning was accidental or suicide. Salib and Agnew (2005) looked at deaths by drowning in England and Wales and found that 62% of all deaths by drowning received an open verdict. In some jurisdictions, medical examiners prefer to see a suicide note in order to rule the death a suicide, an option not available for animals. Animals have been observed to stop eating, and this may be one of the few methods for suicide available to them.

Animals do die from non-natural causes. Birds hit buildings as they fly and die, and humans do jump from buildings. As noted above, animals do drown, as do humans, often for suicide. Animals do get eaten by predators, and humans throw themselves in front of trains. Farmers and animal breeders may not have observed suicidal behavior in their animals but, again, what methods are available for their animals to die by suicide?

Lester (2017) drew attention to a little known essay on animal suicide. Using Skinnerian learning techniques, Schaefer (1967) showed that mice can discriminate live from dead mice and lethal from nonlethal rooms, and that they avoid a lethal room. Schaefer did not subject his mice to stress or pain in order to see whether they would then enter the lethal chamber. (To do so might be considered to be unethical.)

Therefore, the question of whether animals can die by suicide may be unanswerable, similar to the question of whether the deaths of Marilyn Monroe, Elvis Presley and Vincent van Gogh were suicides or not.

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BLOOD TYPE AND SUICIDE[1]

David Lester

Abstract: This article reviews research on the association between suicidal behavior and blood type, both at the individual level and at the ecological level. The topic remains an under-explored association, but countries with a greater percentage of Type O individuals do appear to have lower suicide rates.

Zonda and Lester (1993) found that suicides tended to more often have Type O blood than expected. The present review examines the support for this difference. It is noteworthy that, in the past (the 1970s and 1980s), there were many studies on blood type and psychiatric disorder and personality. Some of this research is reviewed here. Some of the studies use self-report of blood type, and this is invalid as a measure of blood type. In addition, many of the studies were in foreign journals with no access presently and, therefore, cannot be reviewed. The present review is not exhaustive but sufficient to document the trends.

Research on Individuals

Blood Type and Psychiatric Diagnosis[2]

It is interesting to note that, in many of the earlier studies (1970-1990), researchers omitted Type AB types.

No Differences by Diagnosis

Several studies have found no association between blood type and psychiatric diagnosis. For example, Morant, et al. (1978) reviewed research and found no associations between blood type and schizophrenia, mental retardation or

[1] A review of blood type and personality proved to be unhelpful in understanding this topic and is presented in an Appendix.

[2] Incidentally, Lester (1986) found no differences from chance expectations for the blood types of American victims of homicide, both for white and for black victims. Higgins, et al. (1963) found no association between smoking and documented blood type. Smoking has often been found to be associated with suicidal behavior (Kisch, et al. 2005).

alcoholism. However, manic-depressive disorder was more common in Type O people while psychopathy was more common in Type A people.

More recent studies have also reported no differences by psychiatric diagnosis. Dibajnia1 and Moghadasin (2014) found no differences in blood type for Iranian depressed and obsessive-compulsive patients from the general population who had been blood typed. In a sample of Canadian psychiatric patients, Irvine and Miyashita (1965) found no differences in blood types for those with different diagnoses. In small samples with known blood types, Lavori, et al. (1984) found no difference in blood type between American bipolar and unipolar depressives and healthy controls. Pisk, et al. (2019) compared Croatian psychiatric patients with healthy controls and found a significantly higher percentage of Type AB in the psychiatric patients, but no differences by type of disorder.

Affective Disorder

Zonda and Lester (2002) compared bipolar patients and control in Hungary and found no differences in blood type. Bipolar I patients more often had Type O blood compared to bipolar-II patients, whereas bipolar-II patents more often had Type A and Type B blood types.

Beckman, et al. (1978) found an increased frequency of Type B among Swedish depressed psychotic (bipolar and unipolar) patients compared to depressed non- psychotic patients (reactive and unclassifiable).

Singg and Lewis (2001), using American subjects with documented blood type, found that Type 0 individuals showed a higher mean depression score than both the Type A and Type B/AB individuals.

Compared to the Greek general population, Rinieris, et al. (1979) found that bipolar affective disorder patients had more Type O and fewer Type A individuals. Unipolar patients had more Type O individuals, while patients with involutional depression had more Type A and fewer Type O and Type B individuals.

Masters (1967) found that manic-depressive patients in an English sample were more often Type O compared to patients with other diagnoses (such as schizophrenia) and with blood donors.

Shapiro, et al. (1977) studied a sample of Danish patients with affective disorders. Bipolar patients were over-represented in Type O, while unipolar patients in Type A compared to controls.

In contrast, Ertas, et al. (1990) found no differences in blood type between small samples of patients with bipolar affective disorder and healthy controls.

Table 1: Blood type and affective disorder

Author	Country	O	A	B	AB
Beckman et al	Sweden			hi bipolar I & II	
Ertas, et al.	Turkey	no differences			
Masters	England	hi bipolar			
Rinieris et al. (1979)	Greece	hi bipolar hi unipolar	lo bipolar		
Shapiro et al.	Denmark	hi bipolar	hi unipolar		
Singg & Lewis	USA	hi depression			
Zonda & Lester	Hungary	hi bipolar I	hi bipolar II	hi bipolar II	

It can be seen in Table 1 that the results of these studies are not completely consistent, but there is a trend for bipolar patients to more often have Type O blood.

Other Disorders

In Iran, Aflatoonian, et al. (2011) found that opioid addicts more often had Type AB blood compared to blood donors. In the control group, the frequency of AB blood group was significantly less than that of other blood groups, while in the addict group there was no significant difference in the frequency of blood groups. The addicts were also more often rhesus negative.

Using blood tests for typing, Rineiris, et al. (1978a) found that Greek patients diagnosed with hysteria had a higher incidence of Type A and a lower incidence of Type O, while Rineiris, et al. (1978b) found that patients with obsessive-compulsive disorder also had a higher proportion of Type A individuals. Rinieris, et al. (1983) found a positive association between obsessive-compulsive neurosis and blood type A and a negative association for blood type O, a positive association between phobic neurosis and blood type O and a negative association for blood type A, and a positive association between hysteria and blood type A and a c negative association for blood type O.

Suicide and Blood Type in Individuals

Zonda and Lester (1993) studied suicides in Budapest (Hungary). Compared to the general population, there were more suicides with Type O blood type and fewer with Type B, but the differences were not statistically significant. There were, however, more suicides with rhesus negative blood than expected. The blood type of the suicides was not associated with age, sex, month of death or method used for suicide. As noted above, there is a trend for bipolar patients (who have a higher suicide rate than controls) to more often have Type O blood.

Zonda, et al. (1999) then compared the suicides in their earlier study with a sample of attempted suicides in Budapest. The suicides were more often Type O than the attempted suicides which Zonda, et al. saw as consistent with the higher proportion of Type O people in those with bipolar affective disorder.

Lester and Hathaway (2010) compared large samples of suicides, homicide victims and motor vehicle accidental deaths in Oregon (obtained from a follow up study of a very large sample of blood donors) and found no differences in blood type between suicides and accidental deaths, but homicide victims more often had Type O and Type B and less often Type A than the suicides and accidental deaths.

Scripcaru, et al. (2018) found no differences between the blood types of a sample of Romanian suicides and the general population although they did not carry out any statistical tests of significance. However, I calculated the chi-square statistic, and the distribution of blood types differed from the expected values (chi-square = 25.3, df = 3, $p<.01$). There were more Type AB individuals in the suicides especially and also more Type O and Type B individuals and fewer Type A individuals than expected.

Yadav, et al. (2016) studied Indian medical students with known blood type and found no significant differences in suicidal tendency (undefined), or psycho-wellness, on the Modified Mini Screen, although suicidal tendency was less common in Type O than in Type B.

Comment

There does appear to be the possibility that suicides are more often Type O individuals than the general population. However, researchers appear to have lost interest in this topic.

Research on Countries

Blood Type and Personality in Societies

In a poorly presented and analyzed study, Eysenck (1982) presented data to show that (perhaps) countries with higher anxiety scores and neuroticism scores had a higher percentage of Type B individuals, countries with higher extraversion scores had a higher percentage of Type AB individuals. And countries with higher psychoticism scores had a higher percentage of Type B and Type AB individuals.

Lester (1987) examined the distribution of blood types and personality in 17 industrialized countries. (Usually the standard sample for industrialized countries is 18, but data for Switzerland were unavailable.). Countries with more Type AB and fewer Type O people were more anxious (using Lynn's [1971] measures of national character traits), but blood type was not associated with extraversion.[3]

Suicide

Lester (1987) found that suicide rates were lower in countries with a higher percentage of Type O people (and in countries with higher anxiety scores). Homicide rates were higher in countries rated as more extraverted but were not associated with blood type. Lester noted that during this period, Hungary and Czechoslovakia had very high suicide rates and, in data of the distribution of blood types in countries, had the fewest proportion of Type O people in line with Lester's findings.

Lester and Kondrichin (2004) studied 20 European countries and found that the suicide rates were positively associated with the percentage of Finno-Ugrians (found primarily in Finland and Hungarian) and negatively associated with the proportion of people with Type O blood.

Voracek and Formann (2004) reported that the variation in male and female suicide rates in 20 European nations is better accounted for by latitude and longitude than by national percentage of Finno-Ugrians and Type O blood. This result confuses correlation with causation. Latitude and longitude do not cause suicidal behavior, whereas blood type may impact and have a causal connection with suicidal behavior. However, Voracek and Formann did confirm that both male

[3] Lester used the data from Lynn (1971) for personality scores of the countries as did Eysenck (1982) but limited his sample more than did Eysenck. Lester also used appropriate statistics.

and female suicides rates in 30 countries were negatively associated with the proportion of Type O people in the countries.

Voracek (2004) studied 39 countries (29 European and 10 non-European). Across 29 European countries, for men, the suicide rate was positively associated with proportion of Type B and Type AB individuals and negatively associated with the proportion of Type O and Type A individuals. For women, only the correlations for Type O and Type B were statistically significant. For the 10 non-European countries, all the correlations were non-significant for male suicide rates. For the female suicide rate, only the positive association with the proportion of Type AB individuals was significant.

Lester (2004) then studied 51 countries and found that suicide rates were negatively associated with proportion of Type O people in the countries while homicide rates were positively associated with the proportion of Type O people.

Lester (2005) used a regression equation to predict the suicide rate in 17 industrialized countries using birth rate, divorce rate, percent of the elderly (65+), alcohol consumption and percent type O blood. A multiple regression using these five variables to predict the suicide rate resulted in R=0.85. This regression equation was found to be quite accurate in predicting the relative suicide rates of 7 other European countries that were not in the original sample: Bulgaria, Czechoslovakia, Greece, Hungary, Poland, Portugal and Yugoslavia, with a Spearman rho of 0.89 between the actual suicide rate and the predicted suicide rate. However, for 7 non-European countries (Egypt, El Salvador, Mexico, Sri Lanka, Thailand, Trinidad and Tobago, and Venezuela), the Spearman rho was 0.00!

Discussion

The results of this review of research on blood type and suicide are mixed. At the ecological level, countries with a higher percentage of Type O individuals have lower suicide rates. At the individual level, the association is less consistent and, in contrast to results at the ecological level, suicides are more often Type O individuals.

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Appendix: Blood Type and Personality in Individuals

An attempt was made to see whether consistent differences in personality were apparent across the four blood types using the NEO Big Five traits and Eysenck's PEN scale. The results of a partial review of research (summarized in Table 2) showed that five studies reported no significant differences in personality across the blood types, and the results of studies that do report significant differences were inconsistent. Here are the results from the studies that I located.

Eysenck's PEN and EPQ Scales

In a sample of Palestinian university students with their blood type recorded in their university files, Alsadi (2020) found no differences by blood type for extraversion, neuroticism or psychoticism.

In a study of Indian doctors who presumably knew their blood type, Gupta (1990) found that Type O and Type A individuals were more extraverted and more sociable, Type A individuals were more impulsive, Type O individuals had more empathy and Type B individuals had higher neuroticism scores.

Lester and Gatto (1987) studied blood type and personality in American college students. Lester and Gatto collected blood samples to obtain the actual blood type rather than relying on the students reports. Only 45% of the students knew their blood type and, of these, only 85% were correct. Blood type was not associated with depression, psychoticism or neuroticism scores. However, there were significant differences in extraversion scores. Individuals with Type O and Type AB had significantly higher extraversion scores than individuals with Type A and Type B blood, even after controls for sex. This study highlighted the importance of blood typing subjects rather than relying on self-report.

Marutham and Prakash (1990) studied Indian postgraduate students who could provide a record of their blood type. They found that Type O, Type A and Type B did not differ in scores for neuroticism, extraversion or Type A behavior. (They did not appear to have any Type AB individuals in their sample.) Type B had higher Lie scale scores.

Nahida and Chatterjee ((2016) studied 100 Indian subjects but do not report how they assessed blood type (self-report or blood test). They found no significant differences in extraversion, neuroticism, psychoticism or lie scale scores.

In a study of Greek medical students and staff with known blood type, Rinieris, et al. (1980) found no differences between those with different blood groups in neuroticism or extraversion.

Sah and Dandannavar (2018) studied Indian medical students who had been blood typed and found that participants with Type B and Type AB had higher extraversion scores. (They also distinguished between rhesus positive and negative blood types, and extraversion scores were higher in Type B-ve and Type AB+ve.)

NEO Big Five Traits (OCEAN)

Cramer and Imaike (2002) relied on self-report of blood type and found no differences in extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience in Canadian students.

Flegr, et al. (2013) studied a large sample Czech soldiers who had been blood typed and found no differences by blood type for anxiety, depression, phobia, hysteria, hypochondria, vegetative lability, psychastheny, neuroticism, extraversion, openness, agreeableness, conscientiousness and IQ.

Kanazawa (2022) studied a sample of Japanese adults and claimed that almost all Japanese know their blood type, and so his study did not measure blood type. Type A and Type AB scored higher on conscientiousness.

Rogers and Glendon (2003) used Australian blood donors (for whom the blood type is known) and found no significant differences by blood type for extraversion. neuroticism, agreeableness, intellect, conscientious and optimism.

Sharifi, et al. (2015) studied a sample of Kurdish college students in Iran using self-reported blood type. There were significant differences for extraversion (with Types B and AB scoring lower) and openness (with Types B and AB scoring lower).

Wu, et al. (2005) studied Chinese high school students using self-report of blood type. The only significant difference was that Type AB females scored lower on conscientiousness.

Abdel-Khalek and El Nayal (2004) studied Egyptian college students with self-report of blood type and found those with Type O had highest neuroticism scores, those with Type A had highest extraversion scores, indicating that Type A

individuals are stable extraverts. Blood type was not associated with sociability, but was associated with obsession, with Type AB and Type O having the higher scores.

Table 2: Blood type and personality

Author	Country	O	A	B	AB
PEN/EPQ Scales					
Abdel-Khalek	Egypt	hi N	lo N hi E	lo E	
Alsadi	Palestine	no differences			
Gupta	India	hi E	hi E	hi N	lo E
Lester & Gatto	USA	hi E	lo E	lo E	hi E
Marutham, et al.	India		hi lie		
Nahida, et al.	India	no differences			
Rinieris, et al. (1980)	Greece	no differences			
Sah, et al.	India	lo E	hi E	hi E	lo E
NEO Scale					
Cramer, et al.	Canada	no differences			
Flegr, et al.	Czechoslovak.	no differences			
Kanazawa, et al.	Japan		hi C	lo C	hi C
Rogers, et al.	Australia	no differences			
Sharifi, et al.	Kurds	hi E hi O	hi E hi O	lo E lo O	lo E lo O
Wu, et al.	China				lo C (females)

Summary

Table 2 summarizes the results of these studies on two popular scales: the NEO Big Five Scale and Eysenck's PEN/EPQ Scales. Five studies reported no significant differences. There is a lack of consistency in the results. For example, Types O, A and AB are reported as high in extraversion in some studies and low in extraversion in others. As a result of this review, this body of research proved to be of no use for the main purpose of this study.

Suicide Studies, 2025, 6(3), 26-27

ASTHMA AND SUICIDE: AN ECOLOGICAL STUDY OF EUROPEAN COUNTRIES

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Abstract: A study of European countries failed to find a significant association between the prevalence of asthma and suicide rates. The association for male suicide rates was almost significant ($p<.10$) and may merit further investigation. However, the association was opposite to that expected. Countries with a higher prevalence of asthma tended to have lower suicide rates.

There is some evidence that those individuals with asthma have a higher risk of suicidal behavior. For example, Messias, et al. (2010) found that a history of asthma was associated with a history of attempted suicide in a national sample of Americans. Goodwin and Eaton (2005) found that the presence of asthma predicted suicidal ideation and attempts in a 15-year follow-up study of residents of Baltimore.

The present study took advantage of a report by To, et al. (2012) of the incidence of asthma in a large sample of countries to explore whether the incidence of asthma in countries was associated with suicide rates.

Method

Suicide rates were available for the year 2012 from the World Health Organization (WHO, 2014). Unfortunately, the WHO has begun to estimate suicide rates for countries that do not report official suicide rates. The present study was, therefore, restricted to their sample of European countries that do endeavor to count suicides in their countries accurately.

A second problem is the countries that the WHO included as European, such as Turkey and Israel are not typically included in studies of European countries. I prefer to use a sample of 18 industrialized countries, but To, et al. did not have data for Canada, Japan, New Zealand, Switzerland or the USA in their sample.

Results

To, et al. presented data for three measures of asthma: doctor diagnosed asthma, clinical asthma and estimates of wheezing symptoms. For the 30 European countries and for 17 major European countries, there three measures were strongly associated, with Pearson correlations >0.89. Therefore, associations using only doctor diagnosed asthma are reported here.

For 30 European countries the rate of asthma was not significantly associated with the total suicide rate (r=-0.26), the female suicide rate (r=+0.05) or the male suicide rate (r=-0.35, p<.10). For the 17 major European countries, the correlations were -0.21, +0.05 and -0.30 (all non-significant).

Discussion

The present study failed to find evidence of an ecological association over European countries between the prevalence of asthma and suicide rates. However, the association for male suicide rates approached statistical significance and, perhaps, a more extensive study, incorporating control variables (such as gdp per capita) would be worthwhile. However, the association over countries indicated that the greater the prevalence of asthmas, the lower the suicide rate, an unexpected finding.

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SUICIDE AFTER TREATMENT FOR EPILEPSY

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Abstract: Examination of a meta-analysis of suicide in epileptics who underwent treatment (surgery) indicated that ***in the long-term*** they most likely do not have a high rate of suicide.

In a meta-analysis of studies of mortality in schizophrenic patients, Lester (2006) found that estimates of the percentage of deaths from suicide are inflated because the follow-up period is so short. By extrapolating until all of the cohort is dead, the percentage of deaths from suicide was 0.5% for males and 0.2% for females compared to reports as high as 56% after a follow-up period of 17 years when only a few members of the sample had died.

Pompili, et al. (2006) reported a meta-analysis of deaths from suicide in epileptics. The present note examines the studies in that meta-analysis to ascertain what the final extrapolation of deaths from suicide night be when aall of the members of the cohorts were deceased.

The studies in that meta-analysis were poorly reported (see Table 1). Often the sex of the participants was not reported, nor the precise follow-up period or the age of the patients. Some studies were of children operated on for epilepsy while other studies were of adults. A few studies mentioned that their patients were living in sheltered settings which might impact mortality.

Descriptive statistics for the samples are show in Table 2. Using the data from those studies, the prediction for the percentage of suicidal deaths based on the time of follow-up is:

(1) % of suicidal deaths = 18.55 - 0.45xfollow-up in years

If we add the sample size tro the equation, the prediction equation becomes:

(2) % of suicidal deaths = 21.66 - 0.002xsample size - 0.46xfollow-up in years

If we add what the percentage of the cohort is dead, we get:

(3) % of suicidal deaths = 24.14 - 0.001xn - 28.69%xdead - 0.42xfollow-up

Table 2: Descriptive statistics and correlations with the percentage of suicides and the suicide rate

	n	mean	SD	% suicides	suicide rate
sample	28	1702.4	2883.1	-0.31	-0.19
% male	17	55.2	8.7	-0.23	-0.23
suicides	29	7.7	14.9	-0.19	-0.11
other deaths	24	232.9	797.1	-0.29	-0.08
follow-up	28	13.1	10.2	-0.34	-0.34
% cohort dead	23	0.14	0.11	-0.38	-0.12
%suicides	24	11.4	13.4		+0.86***
suicide rate	29	210.7	537.6		

*** p<.001

It can be see that the larger the sample size, the greater the percentage of the cohort that has died, and the longer the follow-up, the lower the percentage of deaths that are from suicide. (All the regression coefficients are negative.)

The largest sample in the studies with complete data was Nilsson, et al. (1997) with 9,061 patients. After a follow-up of 7.5 years, the percentage of deaths from suicide was 1.3%. The highest percentages came from studies with 54 and 100 patients. The percentage of deaths from suicide in Nilsson, et al.'s study would shrink to near zero in a 40 year follow-up using equations (1), (2) and (3).

Pompili, et al. concluded that suicide deaths in persons with epilepsy are a frequent phenomenon . The results of the present analysis indicate that their conclusion is relevant for the first few years after treatment but probably not in the long-term.

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Table 1

Study	n	% male	suicides	other deaths	follow up years	CS as % deaths	suicide rate
Bladen 1992	110	41.7%	1	2	4	33.3%	227.3
Blumer et al, 2002	10739	?	5	?	6	?	7.8
Camfield et al 2002	686	50.1%	2	24	18	7.7%	16.2
Cockerall et al 1994	792	?	1	149	7	0.7%	18.0
Currie et al 1971	666	47.4%	3	51	10	5.6%	27.8
Dalby 1969	347	42.8%	2	9	5	18.2%	115.3
Guldvog et al 1994a	136	62.9%	2	28	20	6.7%	73.5
Guldvog et al 1994b	64	56.3%	2	5	20	28.6%	156.3
Hauser et al .1980	618	?	3	184	25	1.6%	19.4
Hennessy et al 1999	299	?	1	19	9.1	5.3%	36.8
Ivanainen et al 1979	1481	?	13	166	38	7.3%	23.1
Klenerman et al 1993	?	66.7%	0	113	11	0%	0.0
Lindsay et al 1971	100	?	1	13	13	7.1%	76.9
Lip et al 1992	1000	45.2%	3	?	2.3	?	130.4
Lahtoo et al 2001	792	?	1	213	11.8	0.5%	10.7
Loiseau et al 1999	804	60.0%	1	148	1	0.7%	124.4
Mendez et al 1992	1611	?	4	?	4	?	62.5
Nilsson et al 1997	9061	59.3	53	3948	7.5	1.3%	78.0
Nilsson et al 2002	6880	?	64 (+84[4])	?	12.5	?	74.4 (174.4)
Quigg et al, 2003	107	46.7%	1	?	1	?	2803.7
Rafnsson et al 2001	224	65.2%	4	30	34	11.8%	52.5
Salanova et al 2002	215	?	3	8	7	27.3%	199.3
Shackleton et al, 1999	1,355	55.1%	7	397	28	1.7%	18.5
Sillanpää 1983	227	52.0%	1	28	21	3.4%	21.0
Sperling et al 1999	393	54.0%	1	10	3.8	9.1%	67.0
Stępień et al 1969	54		2	3	5	40.0%	740.7
Taylor et al 1968	100	63.0	5	8	5.7	45.5%%	877.2
White et al 1979	2099	69.0%	21	615	26	3.3%	38.5
Zielinski 1974	6,710	?	16	202	18	7.3%	13.2

[4] Undetermined deaths

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COGNITIVE ASPECTS OF SUICIDE

David Lester

CONTENTS

Research Studies

Can Suicide Be A Rational Choice?

Chapter 1

THE ROLE OF IRRATIONAL THINKING IN SUICIDAL BEHAVIOR[5]

This first chapter briefly reviews the impact of irrational thinking on the decision to engage in suicidal behavior and then lays out what I hope to accomplish in this book. First, I will review the general role of irrational thinking in psychiatric disorders and how the type of irrational thinking may differ in the different psychiatric disorders. After noting Aaron Beck's framework for analyzing irrational thinking in suicidal individuals, the types of irrational thinking proposed *specifically* for suicidal individuals are reviewed, including hopelessness, feelings of defeat and entrapment, perceived burdensomeness, perfectionism, thinking that one is an impostor, and shame. The final section reviews more complex models than a simple summative relationship of types of irrational thoughts, such as typologies, profiles and schemata.

The cognitive theory of psychologically disturbed behavior, which became very popular in the 1980s, is based on the notion that our negative emotions and disturbing behaviors are not a result of the unpleasant events which we experience, but rather are the result from our thoughts about the events. It is not the fact that we were fired from our job or that our spouse divorced us that makes us anxious or plunges us into despair. Rather, it is what we say to ourselves after these traumatic events which leads to the anxiety and despair.

The first noteworthy system, called Rational-Emotive Therapy, was devised by Albert Ellis (1962). Antecedent events (A) lead to beliefs (B) which result in consequences (C). If the beliefs are irrational, then the consequences are severe. If the beliefs are rational, then the consequences are mild. Ellis listed ten common irrational beliefs initially, later extending the list to thirteen. The irrational beliefs included such ideas as: the idea that it is a necessity for us to be loved or approved by almost every significant other in our lives, and the idea that we should be thoroughly competent in every possible respect.

Ellis listed most of the common irrational beliefs, for example:

[5] This chapter is based on Lester (2012).

- The idea that it is a dire necessity for us to be loved or approved by virtually every significant other in our lives.

- The idea that we should be thoroughly competent, adequate, and achieving in all possible respects to consider ourselves worthwhile.
- The idea that human unhappiness is externally caused and that we have little or no ability to control our terrors and disturbances.
- The idea that our past history is an important determiner of our present behavior, and that because something once strongly affected our life it should indefinitely affect it.
- The idea that there is invariably a right, precise and perfect solution to human problems and that it is catastrophic if this perfect solution is not found.
- The idea that, if something is or may be dangerous or fearsome, we should be terribly concerned about it and should keep dwelling on the possibility of its occurring.

These irrational beliefs lead to the emotional states of panic, self-blame and self-doubt.

- The idea that certain people are bad, wicked and villainous and that they should be severely punished and blamed for their villainy.
- The idea that it is awful and catastrophic when things are not the way one would like them to be.
- The idea that it is easier to avoid than to face life's difficulties and responsibilities.
- The idea that one should become quite upset over other people's problems and disturbances.

These irrational beliefs lead to the emotional states of anger, moralizing and low frustration tolerance.

- The idea that we should be dependent on others and need someone stronger than ourselves on whom to rely.

The next major system was proposed by Aaron Beck (1976) and is known by various labels, most commonly Cognitive-Behavioral Therapy. The basic idea is identical, but Beck and his students classified the types of irrational beliefs more abstractly. A typical list was provided by Burns (1980, pp. 40-41):

All or nothing thinking: You see things in black–and-white categories. If your performance is not perfect, then you are a failure

Overgeneralization: You see a single negative event as a never-ending pattern of defeat.

Mental filter: You pick out something negative and focus on it so that your entire outlook becomes negative.

Disqualifying the positive: You reject experiences by insisting that, for one reason or another, they do not count. This allows you to maintain your negative beliefs.

Jumping to conclusions: You make a negative conclusion regarding something regardless of the fact that there are no definite facts to support your conclusions

Magnification (catastrophizing) or minimization: You exaggerate the importance of things or you inappropriately shrink things until they appear to be unimportant.

Emotional reasoning: You assume your negative emotions are a reflection of the ways things really are.

Should statements: You use "should" (or "shouldn't") as a means of motivating yourself. When directed at yourself, you feel guilt; when direct at others, you feel anger and resentment.

Labeling and mislabeling: An extreme form of overgeneralization in which you overgeneralize about yourself instead of the act that you did (e.g., "I'm a loser").

Personalization: You blame yourself for negative external events for which you were not primarily responsible.

For example, in *overgeneralization*, the person makes unjustified generalizations on the basis of one incident. A single failure leads the person to believe that he will never succeed at anything. In *magnification*, the person exaggerates the significance of an event. The individual may think, "This is the worst thing that has ever happened to me. I can't stand it."

Rational Behavior Therapy

In Rational Behavior Therapy, devised by Maxie Maultsby (1975a, 1975b), principles and techniques are utilized similar to those developed by Ellis in his Rational Emotive Therapy. Maultsby stresses the training of the client to apply the principles of the therapy system by himself. He gives five criteria by which self-counseling can be judged to be rational:

Is it based on facts?
Does it help the client protect himself from probable harm?
Does it help the client achieve his short-term and long-term goals?
Does it help the client avoid significant conflict with other people, especially legal authorities?
Does it help the client feel the emotions he wants to feel?

Irrational Thinking in Different Psychiatric Disorders

The next development was to realize that those with different psychiatric disorders had very different sets of irrational thoughts. For example, Beck, et al. (1987) found that depressed individuals had irrational thoughts centered around the themes of self-depreciation and negative attitudes toward the past and the future such as I'm worthless, I'm a social failure, and No one cares whether I live or die. In contrast, people with anxiety disorders are characterized by themes of danger, physical or psychosocial, and anticipated harm in the future such as I am going to be injured, What if I get sick and become an invalid, and I'm not a healthy person.

Panic disorder clients have themes centered around catastrophic physical or mental experiences. They fear going crazy or having a heart attack or humiliation and failure. These thoughts are usually triggered by internal events (such as chest pain, dizziness and palpitations) or external events (such as being alone in the evenings, during an argument or when confined in a crowded place). The physical sensation is misattributed and believed to signal something medially serious (Ottaviani & Beck, 1987). The linkage is usually very specific (Chambless, et al., 2000).

Dizziness	**fainting**
Chest pressure	heart attack
Distorted vision	blindness
Numbness	brain tumor

In borderline personality disorder, according to Butler, et al. (2001), the irrational beliefs include

Aloneness (I will always be alone)
Dependency (I can't manage by myself; I need someone to fall back on)
Emptiness (I don't really know what I want)
Lack of personal control (I can't discipline myself)
Badness (I am an evil person, and I need to be punished for it)

Interpersonal distrust (Other people are evil and abuse me)
Vulnerability (I'm powerless and vulnerable, and I can't protect myself)

The next step is to identify cognitive dysfunctions that are unique to suicidal individuals, regardless of their psychiatric diagnosis.

Negative Cognitive Style

Abramson, et al. (2000) built on Beck's hopelessness theory of suicide (Beck, et al., 1975) and proposed a process in which negative life events combine with a negative cognitive style to result in hopelessness and then, subsequently, to suicidality. The negative cognitive style involves attributing negative events to stable, global causes, viewing these events as very important, inferring that current negative events will lead to further negative consequences, and inferring that these negative events means that they themselves are flawed, unworthy or deficient in some way (Abramson, et al., 2000, p. 22). Abramson, et al. also suggested the origins in childhood of the development of this negative cognitive style, such as parental psychopathology and early maltreatment (physical and emotional abuse).

A Framework for Analyzing Irrational Thinking in Suicidal Individuals

Wenzel and Beck (2008) laid out a framework for discussing cognitive processes in suicidal individuals. They adopted a diathesis-stress model incorporating dispositional vulnerability variables, combined with stress from both the cognitive processes associated with psychiatric disturbance and the cognitive processes associated with suicidal acts. They argued that the stronger the dispositional vulnerability variables and the more severe the psychiatric disturbance, then the less life stress is needed to activate the suicide-relevant cognitive processes.

For dispositional vulnerability variables, Wenzel and Beck suggested impulsivity, problem-solving deficits, an overgeneral memory style, personality traits (such as introversion and harm avoidance), and a trait-like maladaptive cognitive style, and one could add emotionality (or neuroticism) and emotion dysregulation. This last variable is of interest because one possible maladaptive cognitive style suggested by Wenzel and Beck was trait hopelessness. Since hopelessness is one of the cognitive distortions that have been proposed as characteristic of suicidal individuals, Wenzel and Beck raise the possibility that maladaptive cognitive process can be both a trait (dispositional) and a state variable that influence suicidality.

Irrational Thinking in Suicidal Individuals

There have several suggestions for the irrational thoughts that characterize suicide individuals.

Neuringer's Early Ideas

Neuringer (1964, 1967) conducted a great deal of research into two characteristics of the thinking of suicidal people. First, he found that they are prone to dichotomous thinking. Events, relationships and objects are evaluated either as "good" or "bad" rather than as somewhere in between these two alternatives. A corollary of this is a tendency to have bipolar attitudes toward life and death, with life seen as very negative and death as very positive. Second, Neuringer found that suicidal individuals tend to have rigid patterns of thought which makes them poor at identifying solutions to the problems they face. Neuringer employed control groups of psychosomatic patients and medically ill rather than nonsuicidal psychiatric controls. Thus, the differences that he reported may be characteristic of psychiatric patients in general rather than specific to suicidal individuals.

Hopelessness

The cognitive process most central to Beck's theory of suicide is hopelessness (Wenzel & Beck, 2008). Hopelessness was defined by Beck, et al. (1974) as negative expectations for the future and, as we have seen above, Beck allowed that hopelessness can exist both at the trait level and at the state level. Furthermore, Beck suggested that trait hopelessness was not relevant to all suicides but only for those who engage in premeditated suicidal actions. The role of trait hopelessness is much less relevant for those who engage in impulsive suicidal actions. For impulsive actions, these are much more likely to be impelled by psychological states that are judged to be unbearable. However, both pathways (trait hopelessness and unbearable psychological states) result in state hopelessness and suicidal behavior.

Beck brings into his model many more cognitive processes than mere hopelessness (Wenzel & Beck, 2008). For example, Wenzel and Beck proposed a role for attentional biases in which individuals with a history of suicidal ideation, and especially attempts at suicide, have an attentional bias toward suicide-relevant stimuli. This can lead to difficulties in disengaging from these stimuli, becoming overwhelmed by them, and fixating on escape by means of suicide.

Wenzel and Beck noted that individuals in a suicidal crisis often experience racing thoughts (often accompanied by acute restlessness and agitation) and tunnel vision (that is, cognitive constriction). Wenzel and Beck labeled this state as *attentional fixation* which includes the narrow focus of attention (constriction) and a preoccupation with suicide as a solution. This attentional fixation interacts with state hopelessness to create a downward spiral (that is both cognitive and emotional) creating a context in which suicidal behavior become more likely.

Helplessness

Lester (2001), who was involved in the initial presentation of the hopelessness scale (Beck, et al., 1974), later felt that the hopelessness scale items confused two concepts – hopelessness and helplessness. Hopelessness is concerned with negative expectations about the future (and the concept of hopelessness was originally labeled *pessimism*), while helplessness is concerned with whether individuals think that there is anything that they can do to remedy the situation. One can be a pessimist, but still make efforts (successful or unsuccessful) to change outcomes. Lester argued that hopelessness combined with helplessness could be a more potent causal factor for suicidal behavior. Typical items were I look forward to the future with hope and enthusiasm (hopelessness – reversed scoring) and I don't seem to be able to cope with crises without the help of others (helplessness).[6] Gencoz, et al. (2008) found that helplessness and hopelessness scores were correlated with suicidal ideation in college students.

In order that his scale be comprehensive, Lester also added in the construct of *haplessness* in which people feel that their lives are governed by luck, chance or fate.

Defeat and Entrapment

Gilbert and Allan (1998), arguing from an ethological perspective, proposed that depression results when individuals experience defeat and perceive themselves to be trapped with no escape possible. In the animal world, when members of a species fight and one is defeated, there are built-in mechanisms that inhibit challenging behavior in the defeated animal and cause the victorious animal to back off and end the fight. These inhibiting mechanisms are viewed as submissive

[6] Lester's haplessness scale had items such as Many of the unhappy things in my life are partly due to bad luck.

behaviors. In humans, depressed individuals often perceive themselves as inferior and of low status. They frequently experience shame and have low self-esteem. However, not all individuals react extremely. Some continue to live timidly and with caution, while others are seriously demobilized.

Gilbert and Allan sought to test this hypothesis by constructing a paper-and-pencil self-report inventory to measure both defeat and entrapment. Typical items are, respectively, "I am in a situation I feel trapped in" and "I feel defeated by life." Scores on these scales were positively associated with scores on measures of depression and hopelessness in a sample of undergraduates.

A similar model has been proposed by Williams (1997) which consists of six components (Johnson, et al., 2008): (1) the presence of stressors, (2) an appraisal of the situation with a perception of defeat, (3) cognitive biases that magnify the perception of defeat (such as cognitive constriction), (4) arrested flight, (5) a perception that there is no rescue possible, and (6) access to methods of suicide and models for suicidal behavior. If the entrapment is internal (caused by the individuals themselves) rather than external (caused by others), then the individuals may desire to escape from themselves which is often possible only through suicide (Baumeister, 1990).

There are problems with this model. Johnson, et al. (2008) have noted that it has proved difficult to define the two concepts of defeat and entrapment so that there is no overlap. Indeed, the defeat scale devised by Gilbert and Allan has "I feel powerless" on the defeat scale and "I feel powerless to change things" on the entrapment scale. Johnson, et al. also wondered whether the concepts are mutually exclusive. For example, Williams (1997) includes the concept of hopelessness in his model, and this is very similar to perceived entrapment. Although entrapment refers to the past and present, whereas hopelessness refers to the future, the definitions of the terms and the items in the self-report inventories somewhat similar.

Perceived Burdensomeness

Joiner 2005) has proposed a theory of suicide, known as the *interpersonal-psychological theory of suicide*. The theory focuses on three concepts. First, individuals need to belong – to a family, peers, a group and a culture. Thwarted belongingness is a risk factor for suicide. Second, people also have a need to help others and to not be a burden to others. Perceived burdensomeness is the second risk factor for suicide. In addition to these two risk factors, in order to kill

themselves, people also have to acquire the capability to enact this self-injury. They may acquire this through previous injuries, prior attempts at suicide or other experiences such as combat in war zones.

Van Orden, et al. (2008) devised measures of these three variables, and a typical item on the perceived burdensomeness scale is "These days I feel like a burden on the people in my life." Scores on the burdensomeness scale were positively associated with scores on measures of depression and suicidal ideation in a sample of undergraduates (Van Orden, et al., 2008). More recent versions of the theory have incorporated other personality traits, such as low self-esteem (Van Orden, et al., 2010) and emotional dysregulation (Anestis, et al., 2011).

Lester (2024) has argued that Joiner's "theory" is not a theory but merely one type of suicidal individual.

Perfectionism

There is good evidence that perfectionism is associated with suicidal ideation and behavior. For example, Hamilton and Schweitzer (2000) found an association between suicidal ideation and scores on a measure of perfectionism in a sample of Australian undergraduates.

This association is affected by the particular definition of perfectionism. For example, in the study by Hamilton and Schweitzer mentioned above, while the overall score on the measure of perfectionism differentiated the suicidal ideators from the other students, only the subscales measuring concern about mistakes and doubts about actions differentiated the two groups. Scores on the subscales measuring parental criticism, parental expectations and personal standards did not.

Frost, et al. (1990) defined perfectionism as the setting of high standard paired with overly critical self-evaluation in pursuit of those standards. They devised a Multidimensional Perfectionism Scale that proved to have two main components: positive achievement striving and maladaptive evaluative concerns. It is the latter component that is positively associated with measures of psychopathology (DiBartolo, et al., 2008). DiBartolo, et al. (2004) found that scores on the Brief Symptom Inventory were associated with scores on subscales measuring *activity-based self worth* (for example, "When I have free time, I feel guilt about not doing something productive) and *success-based self-worth* (for example, If I were to fail at something, I would be devastated), but not *pure personal standards* (for example, I set higher goals than most people).

The Impostor Phenomenon

The impostor phenomenon refers to a situation in which people who are competent believe that they are really incompetent, and they often live in fear of being identified as frauds. A typical item in an imposter scale is, "People tend to believe that I am more competent than I really am" (Harvey & Katz, 1985). Lester and Moderski (1995) found that high school students who obtained higher scores on a scale to measure this belief were more likely to report prior suicidal ideation and suicide attempts, even after controls for depression scores. Cases of famous suicides provide examples of this. For example, Lester (2014) has analyzed the diary of an academic who died by suicide who, although he was a successful scholar, lived in fear of being exposed as incompetent. He saw invitations to give talks at conferences and academic institutions as situations in which he was being set up for attack.

Shame and Self-Esteem

There are some psychological constructs that can be viewed as cognitions or emotions or a combination of both, for example, shame. Shame, which has been linked to suicidal behavior (Lester, 1997), has aspects of both emotion and cognition. Lester differentiated between shame and guilt in his analysis using cognition. Guilt was described as "I can't believe I did *that*," with the focus on the deed (*that*) for which an apology is sufficient. Shame was described as "I can't believe that *I* did that," with the focus on the self (*I*) for which escape from the situation in order to hide oneself is seen as a solution.

A similar situation arises for the construct of self-esteem which can have both cognitive and emotional aspects. In studying the role of these in suicidal behavior, it is important that the self-report inventories used to measure these constructs choose the words carefully so as to assess the cognitive aspects rather than the emotional aspects. For example, the word *feel* should be avoided since it is often used to mean *think,* yet it has primarily an emotional (feeling) connotation. The Rosenbaum self-esteem scale (Janis, 1954) has the item, "I feel capable of handling myself in most social situations." The word *feel* there should be replaced by the words *think that I am*.

Neimeyer (1984) conceptualized self-esteem as a cognitive construct by calling it *negative self-construing* He hypothesized that negative self-construing might be an important accompaniment of suicidal preoccupation, but his

theoretical analysis focused on the relationship between self-esteem and depression in suicidal people. At mild levels of depression, the self-schema begins to lose some of its organization as it begins to assimilate negative as well as positive information about the self. This continues until, at moderate levels of depression, inconsistent self-construing dominates the system. As the depression deepens, a stable and consistent negative self-schema emerges. The degree of negative self-construing appears to vary with the intensity of symptoms, while other traits such as polarized construing may be stable personality traits of the suicidal person.

The Suicide Cognitions Scale

Bryan and colleagues proposed that three cognitions are found in suicidal individuals that are stable thoughts over time (Bryan, et al., 2016): being unlovable (I am completely unworthy of love), one's problems are unsolvable (Nothing can help me solve my problems), and the present state is unbearable (It is impossible to describe how bad I feel). They devised a long version and a short version to measure these three thoughts.. Bryan, et al. (2016, p. 378) described these three components as follows: perceived worthlessness, failure, and self-hatred (i.e., Unlovability); perceived hopelessness and deserving of punishment (Unsolvability); and perceived inability to tolerate or cope with emotional pain (Unbearability).

In a study of patients receiving treatment for pain, Bryan, et al. (2016) found that scores on these three scales were only weakly associated with scores on scales measuring current and worst ever suicidal ideation. For example, for current suicidal ideation, the correlations were 0.18 with unlovability, 0.09 (not statistically significant) with unsolvability and 0.17 with unbearability.

Ellis and Rufino (2015) studied psychiatric inpatients and found that a score from summing all three components of the scale was associated with depression (r=0.42), suicidal ideation (r=0.65) and hopelessness (r=0.68). A multiple regression found that depression, hopelessness and suicidal cognitions all contributed to the prediction of suicidal ideation (particularly unlovability and unsolvability).

Spangenberg, et al. (2019) studied out-patients at a German psychotherapeutic unit and found moderate to strong correlations of the three suicide cognitions with suicidal ideation (for the summed score of all three scales r=0.64) and depression (r=0.70). In addition, Spangenberg, et al. found that the suicide cognition scores correlated with measure from two other theories of

suicide: defeat and entrapment (r=0.79), perceived burdensomeness (r=0.71) and thwarted belongingness (r=0.60). In a multiple regression to predict current suicidal ideation, unsolvability was the significant predictor along with depression and perceived burdensomeness. Similar results were found for in-patients.

Bryan, et al. (2020) explored whether scores on the suicide cognitions scale could predict future suicidal behavior. In a sample of army soldiers who came for an emergency psychiatric examination, attempting suicide during the following six months was predicted by scores on the suicide cognitions scale, as well by scores on measures of suicidal ideation and thwarted belongingness and, to a lesser extent, by scores on measures of hopelessness and perceived burdensomeness. Total scores on the suicide cognitions scale were also moderately associated with the measures of hopelessness, thwarted belongingness and perceived burdensomeness.

Other Possible Irrational Thoughts

Revere (1985) identified five fantasies that suicidal individuals often have and which may be disputed by rational thinking: (1) that suicide will be a very disruptive event for the surviving family, (2) that acceptance and glory will be theirs after their death, (3) that suicide will give them control over others, (4) that suicide will enable them to regain contact with a deceased loved one (reunion fantasies), and (5) that suicide is a painless way of opting out. For example, Revere suggested that the individual hoping for glory could be given, using guided imagery, the scenario of a small obituary in a newspaper that lands in the gutter where a dog urinates on it.

Several theorists have suggested that cognitive constriction (Neimeyer, 1984; Shneidman, 1996), often called tunnel vision, characterizes suicidal individuals who are looking for solutions for their problems. It is not clear whether this is specific to suicidal individuals or to depressed individuals in general. Furthermore, although the presence of constriction can be documented clinically in patients (Shneidman, 1996), there is little research on this concept, possibly because it has been difficult to devise a measure to assess constriction. Researchers have instead studied problem-solving in general in suicidal individuals (e.g., Sidley, et al., 1997).

Negative Cognitive Style

Several self-report scales have been devised to measure what may be termed a *negative cognitive style*. Peterson, et al. (1982) developed the Attributional Style Questionnaire. This questionnaire presents subjects with 12 hypothetical events, 6 positive and 6 negative; half are interpersonal and half are achievement-oriented. Subjects are asked to write down a one major cause of the event. The cause is then rated as (i) totally due to other people or circumstances versus totally due to me, (ii) will never again be present versus will always be present, and (iii) influences just this particular situation versus influences all situations in my life. This enables the researcher to rate the causes for internality, stability and globality.

Abramson, et al. (1998) modified this scale (the Cognitive Style Questionnaire) and found that college students at high cognitive risk (based on the negative events) judged to be more suicidal on self-report questions about their suicidal ideation and behavior.

A New Model for Irrational Thinking in Suicidal Individuals

So far in this chapter, we have identified some types of irrational thinking that characterize those with selected psychiatric disorders, such as depressive, anxiety and borderline personality disorders. Let us label these types of irrational thinking as A, B, C, etc. We have also identified the types of irrational thinking that characterize suicidal individuals. Let us label these types as α, β, and γ, etc. There are several possibilities.

Simple Summation

It has become standard in predicting suicidal behavior to use multiple regression statistical techniques. Selected scores (x_1, x_2…) from psychological tests are placed into a multiple regression, and the resulting equation is used to predict suicidal risk (SR):

$$SR = a_1x_1 + a_2x_2 + \ldots\ldots$$

A simple linear summation of the weighted components predicts the suicidal risk. In this case, the risk of suicide is predicted (and perhaps caused) by a little bit of hopelessness, plus a little bit of burdensomeness, plus a little bit of perfectionism, etc.

We should note that the technique of simple multiple regression should not limit us.

It may be that the variables are not additive in their impact but rather multiplicative, in which case a logarithmic transformation of the scores prior to entering them into the multiple regression is appropriate.

If $SR = (a_1x_1)(a_2x_2)\ldots..$
Then $\log SR = \log a_1x_1 + \log a_2x_2 + \ldots\ldots$

It may be that the effect of the variables is not linear but rather curvilinear, and so non-linear relationships are relevant.

There are also many options for combining the general irrational thinking found in particular psychiatric disorders (variables A, B and C) with that found in suicidal individuals (variables α, β and γ). Should the two sets of scores be simply added or combined in a more complex manner?

Types

It may be that there are different types of suicidal individuals. There may be a perfectionist type of suicidal individual, a burdensome type, a hopelessness type, etc. Wenzel and Beck (2008) entertained this possibility, as discussed above, by proposing that impulsive and premeditated suicides are characterized by different cognitive dysfunctions.

Profiles

Alternatively, it may be that suicidal individuals all have some degree of the different types of irrational thinking, but to different extents. In that case, as in the MMPI, we could draw a profile of suicidal individuals based on the degree to which they have each of the possible irrational thoughts. Different combinations of irrational thoughts (or different profiles) might indicate different levels of risk.

Schemata and Path Analysis Models

Kovacs and Beck (1978) described how the separate thoughts in a person's mind become linked so that one thought almost always leads to the next thought. They illustrated this with the case of Mr. D. While interacting with his wife, the thought came to him, "I am unable to respond to my wife emotionally," followed

by "I'm alienated from my family," and "I'm responsible for my wife's depression." Another sequence was identified in which approval of others gave Mr. D a sense of worth, and he needed the approval of others to justify his existence every day. If this approval was not received, then he thought that he was not entitled to approve of himself and so he did not have the right to exist. A therapist, who has accurate and detailed knowledge of a client can diagram this sequence. Kovacs and Beck called these thought complexes *schemata*.

Lester (2009) has shown such pathways in his study of the diary of Cesare Pavese (1908-1950), an Italian novelist who died by suicide. Whenever Pavese experienced a rejection by a woman to whom he was attracted or with whom he was in love, a discussion of this in his diary was followed, sometimes in the next paragraph, by a denigration of his literary work.

When studying samples of individuals, path analysis (a correlational technique) is used to chart the relationships between variables and the direction of the pathways, mimicking the links in the schemata described above, but at a more abstract level. For example, O'Connor (2011) has proposed an interesting pathway for suicidal behavior that includes several cognitive elements. Defeat and humiliation leads to entrapment which leads directly to suicidal ideation. Rumination also increases entrapment, but via a different pathway, while burdensomeness plays a role parallel to that of entrapment leading to suicidal ideation. This sets of pathways is just one of many that can be proposed. Path analysis, however, is an extension of correlation and multiple regression and, as Everitt and Dunn (1991) argued, "However convincing, respectable and reasonable a path diagram…may appear, any causal inferences extracted are rarely more than a form of statistical fantasy."

O'Connor in his research frequently tests his suicidal subjects on two occasions so that he can explore whether variables measured at time 1 are associated with variables measured at time 2. But here we run into the trait-state dilemma. Some cognitive styles may be traits while others may be states. If, for example, hopelessness is measured at time 1, as Lester, et al. (1979) did, and it is found that this predicts completed suicide at time 2, then this finding is not surprising if the hopelessness measured at time 1 was trait hopelessness.[7]

[7] Irrational thinking may be either a direct cause of suicidal intent and action or a mediating (or moderating) variable and, in theory, path analysis should be able to test these alternatives.

Rudd's Suicidal Scheme[8]

Following Beck's model, Rudd (2000) constructed a cognitive theory of suicidal behavior. According to this theory, suicidal behavior is activated by suicidal schema. The suicidal schema/mode consists of four interrelated and interacting subsystems. (i) The cognitive subsystem includes a set of beliefs, such as beliefs about one's worthiness or unworthiness of love ("I don't deserve to live"), perceptions of one's competence or hopelessness ("I can't solve this"), beliefs about one's ability or inability to tolerate their own distress ("I can't stand the pain anymore"). (ii) The affective subsystem includes a set of negative emotions, such as sadness, anger, anxiety, guilt, depression, hurt, suspiciousness, and fearfulness. (iii) The behavioral-motivational subsystem includes death-related behaviors, such as preparing, planning, rehearsing, and attempting suicide. (iv) The physiological subsystems include arousal mechanisms, such as activation of the autonomic, sensory, and motor nervous system. Thus, according to this model, suicidality is the end product of the activation of suicidal schema, which are set-off by external or internal triggers.

Recently, Rudd (2004) further developed his cognitive theory of suicide by introducing the Fluid Vulnerability Theory (FVT). The FVT contributes to the cognitive theory of suicide by better accounting for inherent fluctuations in suicidal schema manifest in suicidal individuals over both short and long-term spans of time. The FVT also seeks to explain why some people make a single suicide attempt and never repeat it, while others make multiple attempts within brief or long intervals of time. This theory suggests that suicidal episodes are time-limited, and that imminent risk does not endure beyond periods of heightened activation of suicidal mode subsystems. FVT does not deny the existence of chronic suicidality, but rather suggest that chronic suicidality is best understood as episodes of heightened activation, reoccurring during discrete periods of imminent risk, rather than a long-term enduring risk. Those who make frequent suicide attempts have a higher baseline risk level and lower thresholds of activation of the suicidal mode. Suicide risk is elevated by specific triggers which act across all four subsystems of the suicidal mode which are unique to each individual and how they infiltrate the system. The severity of the suicidal episode depends on the interaction between individuals baseline risk threshold and severity of their stressors. Rudd's FVT suggests that suicidal behavior can be better treated and prevented by recognizing the individual's suicidal mode, it specific triggers and thresholds.

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[8] I am indebted to Israel Orbach for drawing my attention to Rudd's theory.

The Role of Variables such as Rumination

There are other variables, such as rumination, which may play a different role, and Kerkhof and Spijker (2011) have provided an excellent overview of the role that rumination can play in the development of suicidal behavior. Rumination may accompany any type of irrational thinking and has been found to correlate with suicidal ideation in college students (Eshun, 2000). For example, a person with a strong level of perceived of burdensomeness may become preoccupied with this perception and dwell on it most of the time, if not all the time. This rumination may exacerbate the individual's suicidal risk. This could be incorporated into our algorithm, not simply as another additive component, but rather as a multiplicative factor, perhaps using z-scores in such an equation. For example,

SR = (hopelessness + burdensomeness) x rumination

This type of complexity can easily be incorporated into multiple regression models, but there are more complex formulae that could be proposed that cannot be fitted into regression techniques.[9] There is also the possibility of exploring in greater depth than hitherto analytic techniques such as latent class analysis, configuration frequency analysis, survival analysis, cluster analysis and multidimensional scaling, and there may be other cognitive variables whose role is more complex than simply adding a component to the algorithm predicting suicidal risk.[10]

Cognitive Style

The concept of cognitive style was popular n the 1960s, beginning with work such as Witkin's research on field-dependence, that is the extent to which an individual can (or cannot) focus on an object without being distracted by surrounding stimuli (Witkin, et al., 1977). Although not much research has been conducted on cognitive style and suicidal behavior, Levenson and Neuringer (1974) found that completed suicides were more field-dependent that nonsuicidal psychiatric controls.

Although there is disagreement over what a cognitive style is (and to what

[9] The formulae in a typical physics textbook illustrate the complexities possible in formulae.
[10] Suicide is a rare event, and the use of these statistical techniques requires a large sample size which may not always be possible to obtain, especially for those dying by suicide (diaries from these individuals are rare) and those attempting suicide with very high intent.

extent it differs from cognitive abilities), there have been many proposals for cognitive style since then, including convergent versus divergent thinking, left-brain/right-brain cognition and even typologies based on the Jungian dimensions of extraversion-introversion and intuition-sensing.

Belief in an internal versus an external locus of control (Rotter, 1966), that is, whether an individual attributes outcomes in their lives to their own actions (an internal locus), the actions of others or luck, fate and chance (an external locus), is another possible cognitive style. Although research on the association between scores on locus of control measures and suicidal ideation and behavior has produced inconsistent results (see Lester, 2000), further research on this and other cognitive styles may be fruitful for understanding how trait aspects of cognition impact suicidal ideation and behavior (e.g., Gosalvez, et al., 1984).

State versus Trait Cognition

As we have seen above, Wenzel and Beck (2008) noted that both state and trait hopelessness may play a role in impacting the risk of suicidal ideation and behavior. State measures are related to cognitive style since they tap long-term patterns of thinking and behavior. For the measurement of emotions, researchers have developed both state and trait measures. For example, there are both state and trait measures of anxiety (Spielberger, et al., 1970). Research into the development of both state and trait measures of cognition may be useful for future research in to suicidal behavior.

Do Cognitive Protective Factors Play a Role?

It has become popular to propose protective factors for suicide, for example, optimism or hope ((Rasmussen & Wingate, 2011). Scales exist to measure these types of variables, and scores on them do correlate negatively with suicidal ideation and behavior. However, there are also scales which measure pessimism and hopelessness, and scores on those scales correlate positively with suicidal ideation and behavior. In most cases, therefore, protective factors, including cognitive protective factors, are simply low scores on scales measuring a cognitive risk factor, and risk factors are simply low scores on scales measuring protective factors.

Scale construction often tries to minimize response sets, and in order to minimize acquiescence response sets, many scales have half of the items phrased in the opposite way from the construct and reversed scored. For example, the Beck

Hopelessness Scale (Beck, et al., 1974) has 11 hopeless items (e.g., The future seems vague and uncertain to me) and 9 hopeful items (e.g., I look forward to the future with hope and enthusiasm), almost equal numbers. Thus, to take a hope scale and label it as a protective factor (e.g., Davidson, et al., 2009) does not appear to advance our understanding of suicidal behavior. One could simply reverse score the items on the Beck Hopelessness Scale or score the two sets of items in the Beck Hopelessness Scale separately.

A similar problem arises with studies of optimism as a protective factor for suicide (e.g., Rasmussen & Wingate, 2011). Some scales contain both optimism and pessimism items (e.g., Abdel-Khalek & Lester, 2006), and one can score the two sets of items separately and call them risk and protective factors or combine the scores on all items into one scale. Much more theoretical consideration and empirical research needs to be carried in order to explore whether the separate concepts of risk and protective cognitive factors is useful.

The one exception here is the Reasons for Living Scale devised by Linehan, et al., 1983) which is a self-report inventory that taps cognitive variables related to "Reasons for staying alive when you are thinking of killing yourself," as they titled their article. The scale has subscales that assess survival and coping beliefs (e.g., I care enough about myself t live), responsibility to family (e.g., I would not want my family to feel guilty afterwards), child-related concerns (e.g., The effect on my children could be harmful), fear of suicide (e.g., I could not decide where, when and how to do it), fear of social disapproval (e.g., Other people would think I am weak and selfish), and moral objections (e.g., My religious beliefs forbid it). Although some thought has been given to possible reasons for dying (e.g., Jobes, 2006), psychometrically reliable and valid scales to assess these have not yet been developed. Thus, the Reasons for Living Scale remains the most viable protective cognitive factor at the present time.

The Problem of Specificity

One problem with analyzing cognitive dysfunction in suicidal individuals is common to all cognitive theories of mental disturbance. Is the deficit a general deficit or a specific deficit? For example, in studies of cognitive dysfunction in schizophrenics, Gold and Harvey (1993) argued that schizophrenics have a general cognitive deficit, while others propose specific deficits, such as sensory gating or attention deficits (Carter, et al., 2010).

The question arises then of whether suicidal individuals have a general

cognitive deficit or a specific one? If a researcher argues that the deficit is specific, then it is incumbent upon that researcher to show that suicidal individuals have the specific cognitive deficit proposed and not any other, a point made by Braginsky, et al. (1969) in their discussion of deficits in schizophrenics. . For example, if Joiner were to claim that his theory of suicide (Joiner, 2005) explains all suicidal behavior, then he has to show that all suicidal individuals have perceived burdensomeness and do *not* have the other possible cognitive deficits, such as hopelessness and perfectionism.

One way to study this would be to give a battery of inventories of irrational thoughts to a sample of individuals and explore, using both factor analyses and cluster analyses, to what extent the different types of cognitive dysfunctions correlate with one another and whether distinct types of individuals can be derived based on their scores on these inventories. This will be illustrated later in Chapter 5.

Levels of Suicidality

The role of the cognitive factors discussed above and the way in which they interact may, of course, differ for different levels of suicidal involvement. Most research is carried out on suicidal ideation (often in non-clinical populations, but sometimes in clinical populations), on those who have engaged in non-fatal suicidal actions in the past or very recently, and, to a much lesser extent, on those who died by suicide. Since those who died by suicide cannot be given psychological tests, most research on cognitive dysfunctions has focused on what they write in suicide notes (Joiner, et al., 2002) and diaries (Lester, 2004). If those who attempt suicide are the focus of study, they must be classified by the degree of suicidal intent if it is wished to extrapolate the findings from the study to those engaged in fatal suicidal behavior (Lester, et al., 1979).

It may be that the particular cognitive dysfunctions involved and the way in which they interact differ for those with suicidal ideation, suicide attempters and those who died by suicide, and the cognitive dysfunctions may differ for those with suicidal behavior in the past as compared to those with current suicidal behavior.

Discussion

The present chapter has sought to identify the irrational thinking that characterizes suicidal individuals above and beyond the irrational thinking that characterizes any psychiatric disorder that they may have. The chapter has also

presented ways in which the components of irrational thinking might be combined in ways other than in a simple additive manner constrained by multiple regression techniques.

Of course, the suicidal process in individuals is affected by many other factors, including personality traits, emotional factors, lifetime experiences and neurophysiological states. There are also other cognitive factors involved, including memory and attention. This essay has not assigned these factors to irrelevance but rather focused on how one component of the suicidal process (the thoughts of the suicidal individual) might be explored in more depth and complexity than hitherto. Eventually, the processes discussed in this essay must be incorporated into a more multifaceted theory of the suicidal mind.

Chapter 2

AUTOBIOGRAPHICAL MEMORY[11]

The memories we retrieve about our past life are called *autobiographical memories*. Conway (1996) has noted that cognitive psychologists distinguish between many types of memory, including episodic, semantic, declarative, procedural, implicit, explicit, and many more. Autobiographical memories relate to places and times and include factual knowledge. They have a context in the individual's personal history and relate to the self. Conway noted that they need not, however, be accurate (or true records of what transpired) since they are personal interpretations of what occurred. They are inherently incomplete.

Conway and Bekerian (1987) proposed a model for autobiographical memories in which they are organized into A-MOPS – autobiographical memory organization packets – each on a particular theme, such as relationships or work. Within each A-MOP, the packets cover several life periods, in each of which there are general events. Finally, within each general event there is detailed event-specific knowledge (ESK). For example, considering the work theme, we could detail this sequence as follows:

<u>Work theme</u>
First job
Working at firm A
First day at work
Working in X department
Socializing at the pub after work on Fridays
Making a pass at M that night
Insulting N after drinking too much
Working at firm B

Conway noted that retrieval of autobiographical memories is slow (of the order of 5 seconds or more) compared to a second for personal facts such as the brand of car one drives. It appears to be a constructive process rather than a reproductive process. Retrieving autobiographic memories is effortful, and Williams and Hollan (1981) described the process as first taking a memory cue and elaborating this into a memory description (often a series of images), a search

[11] Autobiographical memories interact, of course with emotions (Holland & Kensinger, 2010), but this chapter focuses on the cognitive elements.

phase to access knowledge in long-term memory, and then evaluating this knowledge based on the task demands.

The study of autobiographical memories in suicidal individuals has received some attention in recent years. In one of the first studies, Williams and Broadbent (1986) compared 25 patients who had attempted suicide in the past few days by self-poisoning with 25 patients in the hospital for medical reasons and 25 healthy controls. They were each given cue words, such as happy, safe and angry, and asked for a specific personal memory. The overdose patients had worse mood on a test to assess several moods, and they scored higher on a test of hopelessness. On the test of autobiographical memory, the overdose patients more often failed to give a response to a cue word (32% versus 12% and 9% for the comparison groups). The time taken to retrieve memories of positive cue words was longer for the overdose patients than the other groups, but the three groups did not differ for time to retrieve negative memories. Finally, the overdose patients retrieved more general memories for both the positive and negative cue words than the other two groups, and they alone produced more general memories to the positive cue words than to the negative cue words. On a categorization test (thinking of as many vegetables as one can), the three groups performed similarly, indicating that semantic memory did not differ in the three groups.

This study lacked appropriate controls, since the overdose patients were more depressed than the comparison patients, and indeed 16 of the 25 overdose patients met the criteria for a major depressive disorder. Thus, the different behavior on the test of autobiographical memory by the overdose patients may have been a result of their depression rather than their suicidality. However, the overall differences have been found consistently, as we will see below. The overdose patients had problems retrieving specific positive experiences (both in number and latency) despite the fact that they probably had more negative experiences than the average person.

Leibetseder, et al. (2006) studied autobiographical memory in patients with and without a suicide attempt and with and without a current major depression. The four groups did not differ in intelligence, but the suicide attempt only group was more depressed than the healthy controls (no major depressive disorder and no suicide attempt). Both the patients with a major depressive disorder and those with a suicide attempt gave fewer specific autobiographical memories. The three groups of patients did not differ from one another. They found this effect even when controlling for depression using an ANCOVA, but this is not the best type of control.

Pettersen, et al. (2010) studied psychiatric inpatients and outpatients (excluding those with acute suicidality) diagnosed with schizophrenia or schizoaffective disorder, half of whom reported previous suicidal behavior (more than one year previously). The suicidal and nonsuicidal patients did not differ in the number of recalled memories, but the suicidal group recalled more general memories and fewer specific memories. These differences were found even after controlling for scores on measures of depression and hopelessness.

The problem of the mediating impact of depression was illustrated by an early study by Williams and Scott (1988). They found that depressed psychiatric inpatients had longer latencies for retrieving positive memories than did the healthy controls and gave more general memories and fewer specific memories than the controls. In this study, the depressed patients were divided into two groups based either on their hopelessness scores or their history of attempted suicide, but the latency scores and the general memory scores did not differ between the two groups.

Williams and Dritschel (1988) attempted to control for depression and hopelessness by studying three groups – patients who had just attempted suicide, patients who had attempted suicide 3-14 months earlier (ex-patients), and healthy controls. The attempted suicides and ex-patients scored similarly on measures of depression and hopelessness. The three groups did not differ in omissions (no response) or the latency of response. However, both the attempted suicides and the ex-patients gave fewer specific responses than the healthy controls. In addition, the attempted suicides gave more specific response to negative cue words than to positive cue words (5.0 versus 4.3) whereas the ex-patients gave more to the positive cue words than to the negative cue word s(6.0 versus 4.6) as did the healthy controls (7.3 versus 6.7). Thirteen of the 16 ex-patients were more specific to the positive cues words versus only 5 of the 24 attempted suicides.

How does autobiographical memory impact suicidal behavior? Pollock and Williams (2001) suggested that the failure to retrieve specific memories prevents individuals from accessing previous occasions when they solved analogous problems. This is speculative, especially since there is no evidence that these individuals did solve problems effectively on previous occasions. Since they are suicidal, it is very likely that they have a history of failure to solve problems effectively.

An equally plausible hypothesis is that the latency to retrieve specific negative memories and to recall general negative memories rather than specific ones is a protective effect. Recalling specific negative memories might lead to greater hopelessness and helplessness than recalling specific ones. And it should be remembered that the research has been conducted (necessarily) on attempted suicides and not on completed suicides. Perhaps had the attempted suicides been more able to recall specific negative memories, their suicidal behavior might have been more lethal.

Williams and Scott (1988) suggested that the problem could be one of encoding, in which depressed and suicidal individuals prefer to encode the general aspects of experiences or, alternatively, the problem could be in retrieval in which they stop short when searching for specific memories after reaching the general stage of retrieval.

Problem Solving

Pollock and Williams (2001) attempted to explore the association between autobiographical memory and problem solving by comparing first-time suicide attempters and both psychiatric and normal controls. The attempted suicides were more depressed, hopeless and currently suicidal than the other two groups. The groups did not differ in failure to give a memory. The attempted suicides and the psychiatric controls both had longer latencies than the healthy controls. The attempted suicides produced the fewest specific memories of the three groups, and fewer specific memories than general memories, the reverse of the healthy controls. On a problem-solving test (the Means-Ends Problem-Solving Procedure which assesses interpersonal problem-solving skills), the attempted suicides obtained the lowest relevant and effective scores and the healthy controls the highest scores. The problem-solving effective scores and the specific memory scores were positively associated for the attempted suicides, but not significantly associated for the other two groups. The limitation of this study, of course, is the failure to control for the intensity of depression.

Evans, et al. (1992) compared 12 attempted suicides with patients in the hospital for medical procedures, matched for age, sex, education and marital status. Again, the attempted suicides gave more over-general memories than the medical controls, and they also took longer to retrieve memories. In addition, the difference in retrieval times between negative and positive memories was great for the attempted suicides. In a test of problem-solving (the MEPS), the attempted suicides performed worse, giving fewer relevant means and more “no means” than the

medical controls. The means suggested by the attempted suicides were also less effective. The positive correlation between low memory specificity and poor problem-solving was significant for the attempted suicides and for both groups combined. However, the attempted suicides obtained higher hopelessness scores than the healthy controls and higher levels of trait anger. For the attempted suicides anger did not correlate significantly with memory specificity. Again, as is typical in this research, there was no control for the level of depression.

In a study of Iranian patients, Kaviani, et al. (2005) compared depressed suicide attempters with healthy controls. The attempted suicides were, of course, more depressed and hopeless, but did not differ in semantic memory replicating the Wiliams and Broadbent study discussed above. The attempted suicides retrieved negative memories faster and positive memories slower than did the controls. The attempted suicides recalled more over-general memories whereas the controls recalled more specific memories. The attempted suicides also produced fewer and less effective solutions on the problem-solving task (MEPS). However, there was no association between the specificity of memory scores and the problem-solving scores for either group. However, combining the two groups into one sample did produce positive associations. This combination of the two groups is methodologically unsound, and the study failed to control for the level of depression.

Maurex, et al. (2010) compared women with borderline personality disorder who had attempted suicide in the prior six months with healthy controls. The attempted suicides gave fewer specific memories. Currently depressed patients did not differ from non-depressed patients in the specificity of the memories, nor for a lifetime diagnosis of depression or PTSD. On the MEPS problem-solving task, the patients gave fewer relevant means but did not differ in the effectiveness of their solutions. The researchers reported that the specificity score and the number of relevant means were positively associated in the patients even after controls for age, education, lifetime diagnosis of depression and current depression ($r = 0.44$). Since the researchers used healthy controls, the group comparison did not control for depression.

Sidley, et al. (1997) studied 35 attempted suicides, 28 of whom had a major depressive disorder. The number of specific memories they gave to the cue words (positive and negative combined) was positively related to their scores of the MEPS, but not to their depression or hopelessness scores. This positive association was found even for controls (using a partial correlation coefficient) for depression.

The score on the MEPS was not related to the latency of responding, ruling out general sluggishness as a mediator of this positive association.

Table 2.1: A summary of the results

	Omissions	Latency	Specific memories	Controls for depression
Williams & Broadbent (1986)	more	longer for +ve	fewer	no
Williams & Dritschel (1988)	ns	ns	fewer	no
Williams & Scott (1988)			ns	yes
Evans et al (1992)		longer	fewer	no
Pollock & Williams (2001)	ns	longer	fewer	no
Kaviani et al (2005)			fewer	no
Leibetseder et al. (2006)			fewer	poor
Maurex et al (2010)			fewer	no
Pettersen et al (2010)			fewer	yes

Discussion

The results discussed above are summarized in Table 2.1 where it can be seen that only two of the ten studies included some controls for depression, and only one of these studies confirmed the tendency of suicidal individuals to give fewer specific results. Suicidal and nonsuicidal individuals do not appear to differ in whether they failed to give responses at all, and the tendency for suicidal individuals to have longer response times has been found only in studies with no controls for depression. In short, this research is quite poor methodologically and not altogether consistent.

Pollock and Williams (2001) noted that over-general autobiographical memory has been found in depressed patients, patients with acute stress disorders, post-traumatic stress disorder, and obsessive-compulsive disorder. It does not seem unique to suicidal patients. Kaviani, et al. (2005) raised the issue of whether the variables measured in these studies are state (temporary) or trait (long-term) patterns of behavior. Only a longitudinal study can answer this question, and no such study has yet appeared.

Chapter 3

DELAY DISCOUNTING

Delay discounting is a phenomenon which individuals decrease the value of an outcome if its receipt is delayed. This leads them to accept an outcome of lesser utility (or value) now rather than an outcome of greater utility (or value) later. Delay discounting is often hyperbolic, meaning that small delays for the receipt of the outcome have a proportionally greater impact on value than do longer delays. Delay discounting leads to impulsive behavior because individuals choose a smaller quicker outcome over a larger later outcome. Delay discounting can be a state phenomenon, affected by momentary circumstances (internal to the individuals or external) and a stable trait so that individuals tend to have this approach generally (Odum, 2011).

This phenomenon is shown by individuals who smoke (choosing present pleasure over long-term survival), use drugs, take on large amounts of credit debt, overeat or fail to exercise. Delay discounting as a trait is associated with antisocial personality disorder (Bobova, et al., 2009), and in a choice situation of choosing a smaller amount of money immediately versus a larger amount later (ranging from one week to six months), Kirby, et al. (1999) found that heroin addicts showed delay-discounting more than did controls from the community matched for age sex and education. However, measures of delay discounting do not always correlate with measures of impulsivity, perhaps because self-report scales of impulsivity measure multiple facets of impulsivity (Odum, 2011). However, in a survey of over 42,000 British television viewers who were given a single delay-discounting choice of £45 in three days versus £70 in three months, Reimers, et al.(2009) found that those choosing the smaller amount in three days were younger, had less income and less education, and were more likely to have engaged in impulsive behavior such as age at first sexual activity, relationship infidelity and smoking.

Lempert and Pizzagalli (2010) administered undergraduate students a choice test in which they had to choose between $10 to be received after a delay of 1, 2, 40, 180 and 365 days or $2 immediately. For each of the delayed amounts, the immediate amount of money (starting at $2) was increased or decreased in value by 50 cents until an indifference point was reached (that is, the student felt that the two choices were about equal). Delay-discounting was not associated with scores on a general impulsiveness scale, but students who obtained higher scores on a measure of anhedonia (a lack of reactivity to pleasurable stimuli) were more likely to choose a larger delayed reward over an immediate smaller reward.

Lerner, et al. (2013) noted that, while it is common to say that someone has become a sadder but wiser person, myopic sadness can easily be demonstrated. They gave students choices of obtaining some money immediately versus large amounts from one week to six months in the future and found that inducing a sad mood (by means of a brief video) increased the students' tendency to choose the smaller amount of money immediately.

Application to Depression and the Implications

Takahashi, et al. 2008) used a task similar to that used by Lempert and Pizzagalli discussed above and studies psychiatric patients with a diagnosis of affective disorder, all with the most episode being a depression, and found that the depressed patients were more impulsive compared to controls for both gain and loss. Takahashi, et al. related this result to the impaired neural processing of reward and punishment. Must, et al. (2006) found that patients with major depressive disorder showed increased sensitivity to reward, resulting in disadvantageous choices in a gambling task.

This raises the possibility of a connection to physiological theories of personality. Eysenck (1967) proposed that two major dimensions of personality (introversion-extraversion and neuroticism-stability) were related to neurophysiological processes in the brain. Extraversion was mediated by the activity of the reticular activating system, while neuroticism was mediated by the limbic system. Gray (1971) modified this theory in two ways. First, Gray changed the two major dimensions to impulsivity and anxiety. Second, he changed the physiological basis. Gray tied impulsivity to sensitivity to reward, and he located the basis for this to the medial forebrain bundle, lateral hypothalamus and rostral points in the septal area. He tied anxiety to sensitivity to punishment and located the basis for this in the hippocampus, medial septal area, orbital frontal cortex and caudate nucleus. Gray's proposal ties impulsive behavior, and, therefore, perhaps delay discounting, to basic physiological theories of personality.

More intriguingly, Cloninger (1986) proposed a modification of this theory which ties the behaviors to the major neurotransmitters in the central nervous system. Cloninger proposed three major dimensions of personality, two of which are Gray's sensitivity to reward and sensitivity to punishment, renaming them reward dependence and harm avoidance. (The third dimension was novelty seeking.) Cloninger linked harm avoidance to serotonin, with high levels of serotonin resulting in high levels of harm avoidance. He linked reward dependence to norepinephrine with low levels of norepinephrine resulting in high levels of

reward dependence. What makes this theory of impulsivity (reward dependence) heuristic is that cortical levels of these neurotransmitters can be measured indirectly by assessing the levels of the breakdown products in the cerebrospinal fluid (5-hydroxyindoleacetic acid [5-HIAA] for serotonin, and 3-methoxy-4-hydroxiphenylglycol [MHPG] for norepinephrine). Thus, the physiological basis for delay discounting may be able to be explored in correlational studies of subjects who show delay discounting and may even be amenable to experimental studies by manipulating neurotransmitter levels in subjects via administration of medications that change the cortical levels of serotonin and norepinephrine (such as the SSRIs [e.g., Prozac] and NSRIs [e.g., Milnacipram]).

Application to Suicide

Cutler, et al. (2001) speculated that delay-discounting might explain the rising rate of youth suicide since youths are less able to discount present pain with the possibility of future pleasure, but they produced no evidence to support their speculation. Pittel and Rübbelke (2009) hypothesized that suicide bombers forego utility from future life in order to acquire present utility from their present actions. Present utility includes status for themselves, as well as material utility for their families. They may feel anticipatory feelings of pride and accomplishment, as well as the expectation of rewards from God or Allah. The intertemporal utility of their shortened lives exceeds the utility for lives lived to their natural end. Since Lankford (2013) has convincingly documented the miserable current lives of many suicide bombers, their choice makes even more sense.

In an empirical study has appeared on delay discounting in suicidal individuals. Dombrowski, et al. (2011) gave individuals over the age of sixty a choice between smaller immediate monetary rewards ($25-$35) and larger delayed monetary rewards ($75-$85). Delay discounting was greatest in those who had made low-lethality suicide attempts, then in those with only suicidal ideation, and least in depressed but non-suicidal individuals and those making high-lethality suicide attempts. Delay discounting was not associated with hopelessness or depression scores or with intelligence test scores. This result is a surprising, but it suggests that the more seriously suicidal elderly have a lesser tendency toward delay discounting. It may be, however, that the more serious suicide attempters (who, therefore, required hospitalization) were making an effort to appear hypernormal in the hospital in order to obtain their release from the hospital.[12]

[12] Interestingly, in another study, Dombrowski, et al. (2010) found that elderly individuals who had made suicide attempts in the past (and who were currently psychiatric inpatients with major

Liu, et al. (2012) gave a monetary rewards task[13] to patients with a diagnosed substance abuse disorder (primarily cocaine or opioid dependence) and found that those with no history of a suicide attempt discounted small delayed rewards more than large ones, whereas those with a prior suicide attempt showed no difference in discounting rates for small versus large rewards. Overall, delayed discounting was not associated with a history of attempted suicide, so that the major difference was that those with a prior suicide attempt discounted larger rewards more than those with no such history. Interestingly, Liu, et al. saw this result as related to impaired future-directed thinking and time perception.

More speculatively, Van Heeringen, et al. (2011) concluded from their review of functional and structural brain studies in suicidal individuals that suicidal individuals have abnormal functioning in the orbitofrontal and dorsolateral parts of the prefrontal cortex, areas of the brain that Gray (reviewed above) thought were the basis for sensitivity to punishment. Van Heeringen, et al. concluded from their review that suicidal individuals might be overly sensitive to social disapproval and more willing to choose options with immediate reward.

Time Perception

Delay discounting, evaluating future rewards as less salient than present rewards, is obviously related to hopelessness since hopelessness involves a negative view of and expectations for the future. It may also be related to aspects of time perception. However, not all of the research on time perception in suicidal individuals supports this.

Brockopp and Lester (1970) compared suicide attempters with psychiatric controls on a variety of time perception measures. The two groups did not differ on estimating periods of time ranging from five seconds to 90 seconds, the extent into the past and future of stories told to story stems, or the time span covered by reports of important recent event and future expected events. The attempted suicides scored higher than the controls of the Time Competence subscale of Shostrom's Personal Orientation inventory (Shostrom, 1963) indicating that they lived more in the present than in the past or the future. However, a follow-up study

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depressive disorders) discounted previous experiences to a higher degree, reacting more than control patients to what happened most recently in an experimental task.

[13] Such as $5 now versus $10 one week from now.

on a new sample of patients failed to replicate this difference (Brockopp & Lester, 1971).

Greaves (1971) gave attempted suicides and psychiatric controls sentence stems to complete and found that the attempted suicides used more present tense verbs and fewer future tense verbs. (The two groups did not differ in the use of past tense verbs.)

Neuringer, et al. (1971) administered a time opinion inventory to serious attempted suicides and normal controls. The attempted suicides had lower scores on the subscale of ability to delay gratification, but not significantly so. The attempted suicides had the lowest scorers on speed of time perception (that is, time moved more slowly for them), and they were less future oriented. They did not differ on a measure of time pressure. Neuringer and Harris (1974) replicated these results on a new sample of patients. On simple estimates of time passed (30 to 300 seconds), attempted suicides gave greater estimates than normal controls (Neuringer & Levenson, 1971).

Yufit, et al. (1970) gave an open-ended questionnaire to psychiatric patients and healthy controls which asked respondents to select a year in the future and then answer questions as if it were that future year now. Psychiatric patients had less extension into the future, and this was especially so for the patients judged to be at higher risk for suicide. Yufit and Benzies (1973) confirmed this result in suicide attempters judged to be at high risk for suicide compared to those at low risk and nonsuicidal controls.

Lennings (1994) found that current suicidal ideation in college and high school students was related to viewing the future as remote and beyond control and not stable and certain. Suicidal ideation was not associated with future extension (based on the time span for events the respondents believe will occur in the future, both personal and social events). However, Lennings thought that depression was the important variable at work here. Lennings (1992) found that scores on Beck's Hopelessness Scale were positively associated with seeing the future as remote and beyond control, confirming the association between a negative view of the future and hopelessness.

Related to this, MacLeod and Tarbuck (1994) asked attempted suicides and normal individuals to give subjective probabilities for specific future events, both positive and negative (such as "You will be injured through having an accidental fall"), and to give reasons why these events might not happen. The attempted

suicides judged the future negative events as more likely to happen and found it more difficult to give reasons why those events might not happen.

Thus, it seems that suicidal individuals may not view the future as extended as far in time as do nonsuicidal individuals and that their view of the future is more negative, as would be expected from their greater hopelessness. In this case, it makes sense for suicidal individuals to discount the future, that is, accept a smaller reward immediately that a greater reward at a later time.

Other Measures of Time Perception

Many other tests tap dimensions related to time perception. For example, the Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999) assesses the respondent's views regarding the past (negative and positive), the present (hedonistic and fatalistic) and the future (planning for and achievement of future goals). In a sample of Italian high school students, Laghi, et al. (2009) found that those with serious suicidal ideation differed from those with moderate suicidal ideation in having lower scores for the future orientation. They did not apparently differ from the students with no suicidal ideation.

Hirsch, et al. (2007) pointed out the Reasons for Living Inventory (Linehan, et al.,1983) contain items about the future, such as, "I have the hope that things will improve and the future will be happier," come from the *Survival and Coping Beliefs* subscale. Hirsch, et al. created a six-item scale to measure future orientation and found that, in a sample of depressed, elderly psychiatric patients, low scores for future orientation predicted suicidal ideation better than did scores on Beck's Hopelessness Scale. Hirsch, et al. (2006) found that depressed elderly psychiatric patients who had a history of suicidal ideation or a history of attempted suicide had lower scores on these items.

A study by Chin and Holden (2013) studied the association between these different concepts. In a study of depressed and suicidal undergraduate students, they found that a measure of future time perspective (operationalized as the frequency with which one thinks about the future) and connectedness (the tendency to plan for the future and pursue future goals) were associated with each other and with the level of suicidal risk of the students.

Discussion

The research reviewed in this chapter indicates that delayed discounting and time perception differ in suicidal and nonsuicidal individuals and may prove to be important in predicting suicidal behavior in a clinical setting.

Chapter 4

PERSONAL CONSTRUCT THEORY AND SUICIDE

George Kelly (1955) proposed a theory of the structure of the mind based upon cognitive processes (thinking). His basic idea was that we attempt to interpret and make sense of the events that we experience. Our psychological processes and our behaviors are determined by the way in which we anticipate events (or in Kelly's terms, how we construe events).

At the highest level of abstraction, we may be seen as having a theory of the world (a *construction system*). Usually, we seek to extend and refine our construction system. We try to develop a construction system that applies to more and more of the experiences that we encounter, and we try to make it more accurate in the predictions to which it leads us.

Clearly, the theory is a growth-oriented theory in which we become more skilled in making sense of the world in which we live. For Kelly, the model for human behavior is the theoretical scientist who proposes a theory of some phenomenon and then tries to modify the theory to account for all the new data that empirical scientists accumulate about the phenomenon.

As we continue to exist, therefore, we experience more and more, and so our construction system changes and becomes a more accurate predictor for future events. However, it is possible to have inconsistencies and incompatibilities in our construction system. The view of the world we have when we are depressed is often quite different from that which we have when we are happy. When we use only one part of our construction to interpret today's events, we are said to have *suspended* the remaining inconsistent parts.

The Basic Concepts

Construction systems are composed of *constructs*, concepts which we apply to events when we experience them. Constructs are bipolar and dichotomous. When we construe an event we decided that it is *either* this *or* that. Each of us has idiosyncratic constructs. For example, at graduate school, I had a professor who classified people on the basis of their ability as either intelligent or handicapped. Kelly stressed that it was important to find out how both ends of the construct were labelled by the person since they may not use the same label as we would. I might use stupid as the opposite of intelligent, but my professor used handicapped.

One pole of the construct may be used frequently and consciously, in which case the pole is said to be *emergent*; it may be *implicit*, rarely used and not obvious to the person; or it may be *submerged*, never used and unconscious.

Types of Constructs

Kelly was not concerned with identifying particular constructs that are commonly used. Rather he defined various properties of constructs. Constructs have a *range of convenience*, a set of events or objects to which they are typically applied. Constructs may be *preverbal* because we developed them before we had good language skills to symbolize them. Constructs may be *propositional*, that is, classification of an event with one construct does not imply anything about how it will be classified in other constructs, or the opposite, *constellatory*. Constellatory thinking is illustrated by sexist and racist ideas. If you meet a man about whom you know nothing and say, 'This is a man; therefore he is rational, insensitive, cold, brutal and oppresses women', you are construing in a constellatory manner.

Constructs may be applicable to your conception of your innermost self, in which case they are called *core* constructs; or only tangentially relevant to your sense of self, in which case they are called *peripheral* constructs. In general, psychotherapy deals with your core constructs while education deals with your peripheral constructs.

Construction Systems

Construction systems, or parts of them, may be *tight* or *loose*. In tight construing, your theory of the world makes clear unambiguous predictions about what will happen. In loose construing, your theory does not make clear predictions. Daydreams employ tight thinking in general, while dreams employ loose thinking. Creative thinking is frequently loose but, in order to communicate creative ideas to others, tightening of the ideas must occur. Einstein's early musing on his innovative ideas in physics might well have passed through a loose period, but to publish the ideas for others to read and use required tightening of them.

The Perceptual Field

The *perceptual field* is what we experience. It is our subjective perception of the external world. If we explore this external world and seek to gain new experiences, we are said to be *dilating*. On the other hand, if we withdraw from

new experiences and retreat into a more well-known world, we are said to be *constricting*.

Reconceptualization of Familiar Concepts

In addition to defining a new set of concepts, Kelly also considered that the traditional meaning of some familiar terms could be improved, in particular by looking at their implications from the person's point of view and from a personal construct perspective.

Threat

Threat is when you anticipate that you are about to experience some events that will necessitate a substantial change in your core constructs. This will involve a reconceptualization of who you really are and will involve developing a new set of constructs. We commonly call this an identity crisis.

Fear is what you experience when you anticipate that there will be a change in your peripheral constructs, clearly not as major a process as threat.

Anxiety

Anxiety is an awareness that your construction system does not make adequate predictions for the events which you are experiencing. You cannot construe these events. There are various reasons for this. For example, it may be that you have never experienced these types of events before, and your construction system does not apply to them. Or the experiences are occurring too fast for you to assimilate them. Or the experiences may have inherent contradictions and inconsistencies so that they cannot be assimilated.

Aggression

Aggression involves the active elaboration of your perceptual field. You go out and seek experiences, often in those areas which cause you anxiety (and which, therefore, you cannot construe accurately). The opposite to aggression is *passivity*.

Hostility

When you are confronted with evidence that shows that your construction system is incorrect or inadequate in its predictions, you can seek to modify your

construction system so that it becomes more adequate. If instead, you seek to distort the evidence so that it remains consistent with your old construction system, you are said to be *hostile.*

The use of psychoanalytic defense mechanism (which involve the distortion of evidence) is a hostile act. Hostility may also involve extorting evidence from the environment that is consistent with your old construction system. Most of the strategies described by Leon Festinger (1957) in his theory of cognitive dissonance are hostile. The smoker who, for example, does not notice the warning on the package saying that smoking is hazardous to his health or who refuses to believe that smoking causes lung cancer is behaving in a hostile fashion.

Kelly on Suicide

In his discussion of suicide, Kelly (1961 first stressed that suicide, like most of the other behaviors of a person, was an attempt to validate one's life. It will be consistent with the person's construct system and serve to reinforce the particular theory that the person has adopted.

Secondly, he noted that suicide will occur when the outcome of events is so obvious (and we might add anticipated to be extremely unpleasant) that there is no point in waiting around for them. Kelly noted the similarity of this idea to fatalism. If the future is anticipated to be unpleasant and painful, then the person will experience hopelessness. Neimeyer (1984) has speculated that suicidal acts in this state will be deliberate, well planned and lethal.

Suicide will also occur when everything seems so unpredictable that the only definite action is to leave the scene completely. This will be a condition of extreme anxiety. Neimeyer suggested that suicidal actions in this state will be impulsive, poorly planned and less lethal.

Kelly noted that suicide, like depression, was an act of extreme constriction. In constriction, the person shrinks his world to a manageable size. While the depressed person constricts his world by withdrawing from some activity, suicide involves an extreme degree of constriction.

Suicide as a Hostile Act

Lester (1968) suggested that some forms of suicide may be seen as hostile acts. Often suicide, especially attempts at suicide, are ways of extorting evidence

from the world to conform to some particular viewpoint that the suicidal person has.

If a lover is leaving, the attempt at suicide may be motivated by a desire to extort confirmation that the departing lover really does love you and will not leave after all. Alternatively, but more rarely and less obviously, the attempt may be a way of extorting rejection from others to confirm a belief on the part of the suicidal person that people cannot be trusted and that the world is a rejecting place.

In his research, Lester (1969) found that attempted suicides expressed more resentment than nonsuicidal people. The resentment was shown to be directed toward those upon whom the suicidal person was dependent. The suicidal person resented the world and felt that he had been treated unjustly. Lester argued that his suicidal attempt may have been planned to give others a chance to reject him, thereby validating his resentment against the world. By his suicidal actions, he risks being rejected by those who are important to him. (The suicidal person often makes it more difficult for his parents, his peers, and his wife or girl-friend to love him and accept him.)

The suicide attempt may also serve to validate other beliefs. The suicidal person often experiences feelings of worthlessness and depression. By risking rejection through his suicidal behavior, he can seek a validation of his worthlessness and a demonstration that he is not worth caring about.

Lester's ideas differed from the more traditional view of the suicidal person, which sees the aim of the suicide attempt to lie in the extortion of love and attention from others, although this is still hostile behavior in Kelly's theory. These two differing views suggest the possibility of conflict in the suicidal individual, a conflict between the seeking of love and the seeking of rejection. We might speculate that this conflict is a feature which differentiates individuals who attempt suicide from those who successfully kill themselves. The successful suicide may not be seeking rejection, but rather love and attention. Although he will not be able to receive this love and attention, the suicidal person often acts as if he will be around to savor it. Shneidman and Farberow (1957) have called this kind of thinking *catalogic*.

Leenaars' Description of Kelly's Views

Leenaars (1988) has endeavored to specify the views of Kelly on suicide so that he could examine the content of suicide notes to explore whether such notes

illustrated Kelly's views. Leenaars found ten basic ideas:

1. Suicide is an attempt to make sense out of whatever has happened to the person.
2. The person is killing himself because his worst expectations are coming true.
3. The suicidal person's expectations/anticipations about himself, others and the world are not coming true.
4. The suicidal person is expecting less and less for himself, others and the world.
5. The suicidal person feels helpless in understanding an unpredictable and senseless world.
6. The suicidal person is aware of events that don't make adequate sense to him.
7. The suicidal person needs to change himself in order to handle forthcoming events in a way that seems to be impossible to him.
8. The suicidal person has been trying or is trying to make people or events fit with what he expects is the right thing.
9. The suicidal person does not seem to fit into or be able to do what other people expect of him.
10. The suicidal person is killing himself because he sees no alternative to this action and he sees the suicide as giving him some meaning in his life.

Leenaars found that none of these themes differentiated genuine from simulated suicide notes and, furthermore, none of them occurred in at least two-thirds of the genuine suicide notes.

Empirical Evidence for Kelly's Ideas

What evidence is there for the validity of Kelly's ideas about suicide? Very little research on suicide has been conducted within the framework of Kelly's theory. Furthermore, since his theory focuses on cognitive processes and since very little general research has been carried on the cognitive processes of suicidal people, there is not much empirical evidence available that is pertinent to Kelly's ideas. However, some research has relevance for the theory.

General Research on Thinking in Suicidal People

Neuringer has carried out a series of studies to investigate the thought processes of the suicidal individual. In his first study (Neuringer, 1961), he investigated whether suicidal people have a tendency to think in terms of absolute value dichotomies. This tendency would result in the individual polarizing his evaluations into extreme values, such as good versus bad or right versus wrong.

To investigate dichotomous thinking, Neuringer used the Semantic Differential in which the subject has to rate different concepts (such as democracy, love, life, etc.) on different scales (such as good-bad, clean-dirty, happy-sad, etc.). Each concept can be judged on a scale with three degrees of agreement (for example, very bad, moderately bad, and mildly bad). Twelve concepts were organized into pairs (life-death, honor-shame, etc.) and the difference in the ratings of these paired concepts over the scales of judgment was used to measure the tendency to evaluate dichotomously. Neuringer compared male suicide attempters, psychosomatic patients and normal people. Neuringer found that both the suicidal and psychosomatic patients made significantly more extreme judgments than normal people. The suicidal individuals did not differ from the psychosomatic patients, and so dichotomous thinking appeared to be characteristic of all disturbed patients and not unique to suicidal individuals.

In a re-analysis of the data from this study including more of the rating scales, Neuringer (1967) found that the suicidal individuals did show more dichotomous thinking than the psychosomatic patients.

Neuringer (1964) investigated rigid thinking in these same patients, using an attitude scale and a problem-solving task. On both tests, the suicidal patients behaved significantly more rigidly than the psychosomatic patients and the normal people. Patsiokas, et al. (1979) also found suicidal people to be more rigid as compared to nonsuicidal psychiatric patients. Later Neuringer (1979a, 1979b; Neuringer & Lettieri, 1971) found that suicidal people rated the concepts of life and death more extremely than comparison patients and that suicidal people with a higher risk of suicide rated the concepts most extremely than suicidal individuals with a lower degree of risk.

Kelly's notion of the basic cognitive elements in the mind is that they are bipolar concepts. Whether this is indeed true or not, the research of Neuringer shows that suicidal people certainly do seem to construe concepts relevant to living and dying more dichotomously than nonsuicidal individuals. In line with this finding, Osgood and Walker (1959) found that genuine suicide notes contained more *allness* terms (such as always and never) than simulated suicide notes.

Secondly, one of the prerequisites of hostility is that the individual must be reluctant to change and modify their construction system. This is not the same as simple measures of rigidity as measured by standard psychological tests. However the research showing that suicidal people are more rigid than nonsuicidal people is

consistent with the conceptualization of suicidal people as hostile.

Constriction

Neimeyer (1984) reviewed research relative to Kelly's notion that the suicidal person constricts as a general strategy. Landfield (1976) tried to measure constriction using the REP test by noting whether the individual was unable to classify a significant other using the constructs identified on the REP test and whether the individual used concrete constructs. He found that suicide attempters did indeed appear to be more constricted on these measures. Neimeyer also felt that research showing that genuine suicide notes contained more concern with minor details, trivia and neutral statements than simulated notes (Shneidman & Farberow, 1957) was evidence for constriction. However, both of these studies focus on the construction system of the suicidal individual. Constriction refers rather to the perceptual field. A constricted individual restricts the inflow of information into his mind. Thus, the studies reviewed by Neimeyer do not really explore constriction.

There are no studies specifically designed to explore Kelly's notion of constriction of the perceptual field. But some research is pertinent to the issue. For example, the unequivocal research showing that suicide is most closely associated with the psychiatric syndrome of depression (for example, see Temoche, et al. [1964]) supports the notion of suicide as an act of a constricting individual since depression (with symptoms of motor retardation, apathy and loss of interest in the world) is a constricting behavior.

Several researchers have found that suicidal people are more present-oriented and have less future time perspective (Greaves, 1971; Neuringer, et al., 1971; Yufit & Benzies, 1973). This would be consistent with constriction, since the suicidal people would be restricting thoughts of the future from intrusion into their consciousness.

Several studies have also reported that suicides are more socially isolated than nonsuicidal people. For example, Bock and Webber (1972) found that the suicide rate in the elderly was higher if they were unmarried, had few relatives around and belonged to few organizations. Humphrey, et al. (1971) found that suicide attempters were less likely to be married and more residentially mobile. They had weaker family ties and fewer interactions with relatives. They argued with friends (though interacting with them more) and preferred to be alone. Nelson, et al. (1977) also found that attempted suicides were less socially involved

than nonsuicidal psychiatric patients.

However, not all research supports this social withdrawal. Finlay (1970) and Greth (1973) found suicidal and nonsuicidal college students to have similar levels of involvement in organizations and college activities, although they played team sports less often. This social withdrawal may be a result of the depression and suicidal involvement and it may be a contributing cause (a vicious cycle). In Kelly's theory, the constriction is part of the suicidal life-style, especially in the period prior to the suicidal action.

System Disorganization and Anxiety

Kelly hypothesized, as we have seen, that suicide may be a response to the anxiety associated with the collapse of the personal construct system. Landfield (1976) sought to explore system disorganization in suicidal people by examining how many clusters of constructs they used in responding to the REP test. Landfield found, as predicted, that suicide attempters had more disorganized construction systems than comparison patients.

Lester (1971) sought to examine this hypothesis, but he used the RES test which is not a suitable technique for testing the hypothesis.

Fatalistic Depression

The presence of fatalistic depression in suicides is best documented by the research of Aaron Beck and his associates on hopelessness in suicidal patients. Beck, et al. (1975, 1979) found that a measure of hopelessness, a cognitive component of the depression syndrome, was more strongly correlated with suicidal intent in suicide attempters and with the degree of suicidal ideation in suicidal ideators. Lester, et al. (1979) found that hopelessness scores increased from those making gestures to those making serious attempts and that those subsequently completing suicide were among the most hopeless at the time of their initial suicide attempt.

Not every investigator finds that hopelessness is a stronger predictor of suicidal intent than general depression (for example, Pokorny, et al., 1975), but all agree that hopelessness predicts suicidal intent.

Impulsive Construing

In construing, Kelly noted that typically people construe propositionally for a while before preempting and deciding how the situation may best be understood. The impulsive person has a very brief propositional phase while the obsessive person has too long a propositional phase.

It has commonly been noted that suicidal people are often impulsive. Corder, et al. (1974), for example, reported that adolescent suicidal attempters were more impulsive and had a higher activity level than controls. More recent research has compared impulsive and nonimpulsive attempters. Williams, et al. (1977) found, for example, that impulsive attempters were more likely to have a history of suicide attempts and had the means for attempting suicide more readily available.

Using Megargee's (1966) concepts of overcontrol and undercontrol, Lester and Wright (1973) speculated that suicide attempters may be undercontrolled (impulsive in Kelly's terminology), while completed suicides may be overcontrolled (constricted emotionally in Kelly's terminology).

Negative Self-Construing

Neimeyer (1984) noted that negative self-construing may also be an important accompaniment of suicidal preoccupation. All research confirms this (Neuringer, 1974; Wentz, 1976; Wetzel, 1976). Kaplan and Pokorny (1976) found that low self-esteem also predicted *subsequent* suicidal thoughts, threats and attempts in seventh-grade children.

Neimeyer (1984) summarized the interaction of self-esteem and depression in suicidal people in this way. At mild levels of depression, the self-schema begins to lose some of its organization as it begins to assimilate negative as well as positive information about the self. This continues until, at moderate levels of depression, inconsistent self-construing dominates the system. As the depression deepens, a stable and consistent negative self-schema emerges. The degree of negative self-construing appears to vary with the intensity of symptoms, while other traits such as polarized construing may be stable personality traits of the suicidal person.

Discussion

It can be seen that several lines of research support ideas about suicide that can be derived from Kelly's theory of personal constructs. Constriction of the perceptual field, disorganization of the construction system, anticipatory failure of the predictive system, impulsive construing, negative self-construing, polarized construing and hostility all may characterize the suicidal individual. In addition, several case studies of suicidal people have appeared with a personal construct theory perspective (Ryle, 1967). Thus, the personal construct perspective may prove to be a stimulant for innovative research into suicide.

RESEARCH STUDIES

Chapter 5

DEFEAT AND ENTRAPMENT VERSUS HOPELESSNESS[14]

Lester (2012a) reviewed seven theories concerning the irrational thoughts that may precede suicidal behavior, each of which proposes a particular set of irrational thoughts found in suicidal individuals. Typically, research tests one of these theories, and rarely does a research study compare the ability of two or more theories to predict suicidal behavior. There are two possibilities here: (i) suicidal people have general a general irrational thinking style that manifests itself in any test of a specific irrational thinking, and (ii) one theory may be more valid (or generally applicable) than another as an explanation of suicidal behavior. Lester ompared two theories of suicidal behavior - defeat-entrapment theory and hopeless-helplessness theory.

Based on a theory of evolutionary psychology, Gilbert and Allan (1998) proposed that feelings of being defeated and trapped in circumstances from which one cannot escape results in depression. In a sample of 302 undergraduate students, Gilbert and Allan found that scores on measures of defeat and entrapment were associated with scores on a measure or depression (Pearson correlations ranging from .64 to .73). For a review of this theory and supporting research, see Taylor, et al. (2011). In contrast, Beck, et al. (1974) proposed that the cognitive component of depression, labeled as hopelessness, was cause of suicidal ideation and behavior, and subsequent research has confirmed this. For example, Beck, et al (1990) found that a score of 9 or higher on the Beck Hopelessness Scale (BHS) identified 16 of 17 psychiatric patients who subsequently died by suicide. Lester (2001) pointed out that the BHS has items that tap both hopelessness and helplessness, and he devised a test to measure these constructs separately. Lester hypothesized that both hopelessness and helplessness contributed to the prediction of suicidal behavior.

Although these two theories offer competing explanations of suicidal behavior, an examination of the operational definitions of the constructs indicates some overlap in their items. For example, the defeat scale has items, “I feel powerless” and “I feel that I have given up,” items which would not be out of place on a hopelessness-helplessness scale. The present chapter (i) compares the ability of the defeat-entrapment theory and the hopelessness-helplessness theory to predict

[14] This chapter is based on Lester (2012a).

suicidal ideation, and (2) examines to what extent the two sets of measures were associated and, therefore, possibly measuring similar irrational thought.

The participants were 34 male and 106 female undergraduates in a psychology course (M_{age} = 20.9 yrs., *SD* = 2.9) enrolled in three psychology courses. They were administered: (1) Lester's (2001) inventory to measure helplessness, hopelessness and haplessness, which has ten items for each subscale answered on a six-point Likert-type scale (anchors 6 strong agreement and 1 strong disagreement); (2) Thalbourne, et al.'s (1994) measure of manic tendencies and depressive tendencies, each with nine items answered true-false. One item measures past suicidal ideation (On at least one occasion I have felt so discouraged about life that I wanted to commit suicide) and one item measures past suicidal behavior (I have in the past made active attempts to die); (3) Gilbert and Allan's (1998) measures of internal and external entrapment and defeat. The measure of defeat has 16 items, answered on a scale from 0 rarely to 4 almost all the time. The measure of internal entrapment (e.g., "I want to get away from myself") has six items and the measure of external entrapment (e.g., "I feel trapped by my obligations") has ten items, all answered using the same format as for defeat. Mean scores and range of scores are shown in Table 5.1.

Table a-1: Mean scores and ranges of scores

	Mean score	SD	Range of scores	Possible range of scores	Cronbach alpha reliability
Haplessness	28.3	5.9	10-45	10-60	0.67
Helplessness	24.1	5.9	10-40	10-60	0.71
Hopelessness	19.4	4.6	10-36	10-60	0.72
Defeat	12.5	7.5	0-33	0-64	0.88
Internal entrapment	4.5	4.2	0-18	0-24	0.86
External entrapment	7.6	6.8	0-33	0-40	0.89
Mania	5.4	1.5	2-9	0-9	0.25
Depression	3.6	1.8	0-9	0-9	0.55

Scores on the subscales of the defeat-entrapment inventory were positively and moderately associated with scores on the helplessness-hopelessness-haplessness inventory (see Table 5.2). An exploratory principal components analysis identified a single factor with high (> .50) loadings from each scale: defeat .89, internal entrapment .84, external entrapment .79, hopelessness .66, helplessness .82 and haplessness .63. The percentage of the variance accounted for was 60.5%.

Table a-2: Pearson correlations between predictor variables

	Internal entrapment	External entrapment	haplessness	helplessness	hopelessness
Defeat	.75	.69	.38	.64	.54
Internal entrapment		.78	.36	.56	.34
External entrapment			.31	.52	.28
Haplessness				,57	,33
Helplessness					.57

All correlations $p < .001$

The ability of the two sets of scales (along with age and sex) for predicting mania, depression, suicidal ideation and suicidal behavior was compared using linear multiple regressions, and the multiple Rs shown in Table 5.3. The two sets of scales appear to be similar in their effectiveness in predicting mania, depression and suicidality, except that the defeat set of variables was more powerful in predicting depression and suicidal ideation than was the helplessness set of variables.

Table 5.3: Multiple correlations from regressions

	Predictor variables	
	Helplessness set	Defeat set
Mania	.32	.27
Depression	.32	.50
Suicidal ideation	.25	.38
Suicidal attempt	.22	.19

Helplessness set: age, sex, helplessness, hopelessness, haplessness
Defeat set: age, sex, defeat, internal entrapment, external entrapment

The present study suggests that the defeat-entrapment theory of suicidality and the helplessness-hopelessness theory of suicidality, although derived from different theoretical bases, may be similar in that they tap the same cognitive mind set which manifests itself in a variety of psychological tests of cognitive dysfunction.

Profiles

Following the practice used in constructing profiles for the MMPI, scores on each of the scales of irrational thinking were converted to z-scores, and z-scores

greater than 2.00 were identified. In this non-clinical population of college students, 18 of the students had at least one z-score greater than 2.00. For 11 of these, the z-score on only one scale was high – three for defeat, three for external entrapment, three for haplessness, two for hopelessness, and one for internal entrapment (see Table 5.4).

Table 5.4: Profiles of 18 students

	internal	external	defeat	hopeless	helpless	hapless
Subject 10				x		
Subject 17			x			
Subject 21	x	x			x	
Subject 35			x	x		
Subject 40						x
Subject 51		x				
Subject 52		x				
Subject 64			x			
Subject 71	x		x	x	x	
Subject 72		x				
Subject 77	x		x			
Subject 79				x		
Subject 96			x			
Subject 110	x					
Subject 111			x			
Subject 114						x
Subject 127	x	x				x
Subject 128				x		x

The remaining six students had high z-scores on two or more scales:

1. Defeat and hopelessness
2. Defeat and internal entrapment
3. Haplessness and hopelessness
4. Internal entrapment, external entrapment and helplessness
5. Defeat, internal entrapment, helplessness and hopelessness
6. Internal entrapment, external entrapment and haplessness

If the two theories are viewed as distinct theories, then two of these students seemed to fit only one theory (students 2 and 3), while the other four students seemed to fit both theories, at least in part. It can be seen clearly that profiling on these six measures of irrational thinking is possible. Whether it proves useful requires further investigation.

The present study had several limitations. It is a cross-sectional study, examines past suicidal behavior, and does not predict current or future suicidal behavior. It uses a non-clinical sample of undergraduates and a sample that is predominantly composed of females. Future research should use clinical populations, attempt to predict future suicidal behavior and use samples more balanced by sex.

Chapter 6

A PROPOSAL FOR A NEW COGNITIVE THEORY OF SUICIDE: A SEARCH FOR PROFILES[15]

The present chapter seeks to extend the ideas in the previous chapter by expanding the number of cognitive traits involved. In the previous chapter, the two sets of constructs were studied: (i) defeat and entrapment, and (ii) haplessness, helplessness and hopelessness. The present chapter adds perceived burdensomeness from Joiner's (2005) theory, perfectionism, the imposter belief, shame and self-esteem (see Chapter 1).

The question then arises as to whether suicidal individuals thinking irrationally in only one of these ways (that is, they have a specific deficit) or whether their thinking is generally irrational and, therefore, they would obtain high scores on all of these measures of irrational thinking (that is, they have a general deficit). Most research studies to test particular hypotheses typically administer only the test of irrational thinking specific to the researchers' hypothesis. For example, the study of burdensomeness by Van Orden, et al. (2008) administered the burdensomeness scale but did not examine whether their subjects would have scored high on the defeat and entrapment scales (or scales to measure the other irrational thoughts). The present study was designed to give a number of tests of irrational thinking that have been proposed as characteristic of suicidal individuals and explore whether individuals who score high on one type of irrational thinking also score high on the other types of irrational thinking (that is, is their irrational thinking a generalized trait).[16]

Method

A battery of questionnaires was administered to 152 undergraduate students (40 men and 112 women) enrolled in psychology courses, mean age 21.3 years (SD = 3.6). Neither age nor sex was significantly correlated with the scores on the tests of irrational thinking. Means, standard deviations and Cronbach alphas for all the scales for the present sample are show in Table 6.1. The battery of questionnaires included the following.

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[15] This chapter is based on Lester (2013).

[16] This problem also characterizes the debate over cognitive deficits in schizophrenic patients. For example, Gold and Harvey (1993) argued that schizophrenics have a general cognitive deficit, while others propose specific deficits, such as sensory gating or attention deficits (Carter, et al., 2010).

The Perseverative Thinking Questionnaire (PTQ: Ehring, et al. 2011) is a 15-item scale with anchors 1 (never) to 5 (almost always), with items such as "The same thoughts keep going through my mind." Ehring et al. presented data indicating good reliability and validity for the scale.

A 10-item rumination scale devised by Treynor, et al. (2003) with anchors 1 (never) to 4 (always), with items such as "Think 'Why do I always react this way?'" Treynor, et al. presented data indicating good reliability and validity for the scale.

A scale to measure hopelessness and helplessness (Lester, 2001), in which each subscale has 10 items, answered on a 6-point Likert-type format with anchors SA (strong agreement) and SD (strong disagreement. Typical items are "I certainly feel useless at times" (helplessness) and "I don't expect to get what I really want" (hopelessness). The subscales have good reliability and correlate with suicidal ideation.

The burdensomeness scale is a 9-item scale devised by Van Orden, et al. (2008) with anchors 1 (not at all true for me) and 7 (very true for me). It has proven to have good reliability and to correlate with suicidal ideation and attempted suicide. A typical item is "These days I think I am a burden on society."

The defeat and entrapment scales (Gilbert & Allan, 1998) have three subscales: internal entrapment (e.g., "I want to get away from myself"), external entrapment ("I feel trapped by other people") and defeat ("I feel defeated by life"), with 6, 10 and 16 items, respectively, answered with anchors 1(never) and 4 (almost all the time). The subscales have good reliability and validity.

The 12-item impostor scale was devised by Harvey and Katz (1985) answered using a Likert-type format with anchors were SA (strongly disagree) and SD (strongly disagree). A typical item is, "People tend to believe I am more competent than I really am." Scores on this scale are associated with measures of general irrational thinking (Okoth, Moderski & Lester, 1994) and suicidal ideation (Lester & Moderski, 1995).

The self-esteem scale used was that used by Janis (1954). It has ten items, and the scale was modified, replacing the word "feel" with the word "think" in order to appeal to thoughts rather than emotions. The anchors were SA (strongly disagree) and SD (strongly disagree). The scale has been used extensively with

original wording and has good reliability and validity. A typical item is “I think that I have a number of good qualities.”

Depression was measured using the manic-depressive experiences scale from Thalbourne, et al. (1994). The scale has nine items (e.g., I have experienced being so sad that I just sat [or lay in bed] doing nothing but feeling bad) answered using a true/false format. One item concerns suicidal ideation (On at least one occasion I have felt so discouraged about life that I wanted to commit suicide). The scale has good reliability and validity (Rogers & Lester, 2010).

Table 6.1: Scales scores and reliability

	Mean	SD	Cronbach alpha	Range of possible scores	Maximum range of scores
Age	21.2	3.6		18-53	
Burdensomeness	17.2	9.5	.92	9-53	9-63
Defeat	16.4	12.3	.95	0-64	0-64
Internal entrapment	7.1	6.0	.93	0-24	0-24
External entrapment	10.7	8.8	.93	0-38	0-40
Impostor	38.8	9.1	.79	19-61	12-72
Perseverative thought	43.4	12.0	.95	15-75	15-75
Rumination	23.3	6.7	.89	10-40	10-40
Self-esteem	23.7	9.9	.92	10-53	10-60
Helplessness	25/9	8.1	.84	10-58	10-60
Hopelessness	22.1	7.4	.86	10-48	10-60
Depression	3.9	1.6	.48	1-8	0-9
Suicidal ideation	30% yes				
Sex	26% male				

Results

The means scores (and standard deviations) are shown in Table 6.1, along with the Cronbach alpha reliability coefficients for each scale. The scores were subjected to a principal component analysis with a varimax rotation (Table 6.2). Only one factor with an eigenvalue greater than one was identified, indicating that scores on all of the measures of specific irrational thoughts were positively associated and measuring the same trait. All correlated positively with depression scores and past suicidal ideation.

Table 6.2: Principal components analysis and Pearson correlations with suicidal ideation and depression

	PC analysis Factor I	correlation with past suicidal ideation	depression
Burdensomeness	.82	.36**	.43**
Defeat	.91	.42**	.51**
Internal entrapment	.92	.44**	.52**
External entrapment	.85	.39**	.49**
Impostor	.74	.20*	.42**
Perseverative thought	.81	.38**	.54**
Rumination	.68	.37**	.49**
Self-esteem	.86	.36**	.43**
Helplessness	.82	.27**	.41**
Hopelessness	.81	.23*	.29**
% of variance	67.9%		
eigenvalue	6.79		

* two-tailed p < .02
** two-tailed p < .001

Subjects who scored high (z-score > 2.00) were identified and are listed in Table 3. It can be seen that 14 of the subjects had a high z-score on only one scale: 7 on rumination, 2 on impostor, 2 on self-esteem, and one each on hopelessness, perceived burdensomeness and defeat. The remaining subjects had high scores on 2-8 scales of the ten scales administered.

Discussion

The present study sought to identify the irrational thinking that characterizes suicidal individuals above and beyond the irrational thinking that characterizes any psychiatric disorder that they may have. The results indicated that suicidal individuals may have a general trait of irrational thinking, and this tendency is apparent on any test of irrational thinking that is administered to them. However, the possibility of extracting profiles from the tests administered seems to be possible. It may be assumed that, if the sample studied consisted of more seriously suicidal individuals, then more of the sample would have high scores (z-scores > 2.00), and more profiles could be identified and compared for the characteristics of those in the most common profiles.

Table 6.3: Subjects with z scores > 2.00

Subject											Type	
S5						self	defeat	burden				3
S7					rumin			burden			hope	3
S14											hope	1
S15	PTQ	intrap	extrap			self	defeat	burden		help	hope	8
S18	PTQ							burden			hope	3
S21		intrap						burden				2
S24								burden				1
S25	PTQ	intrap		impost	rumin	self	defeat	burden				7
S29		intrap	extrap				defeat	burden		help	hope	6
S55				impost								1
S56					rumin							1
S59					rumin							1
S67					rumin							1
S70					rumin							1
S72						self						1
S76						self						1
S81					rumin							1
S89	PTQ		extrap									2
S90	PTQ	intrap					defeat					3
S113				impost								1
S115		intrap	extrap	impost			defeat	burden			hope	6
S121		intrap				self		burden			hope	4
S127					rumin							1
S128					rumin							1
S144							defeat					1

This result has important implications. As Braginsky, et al. (1969) pointed out many years ago in their discussion of cognitive deficits in schizophrenia, researchers wishing to test a specific theory of cognitive impairment for schizophrenia not only must show that their predicted impairment is found in schizophrenic patients, but also that other cognitive impairments are not found. In research on irrational thinking in suicidal individuals, researchers have, in the past, shown that their particular irrational thinking is present, but they have never shown that other types of irrational thinking are not present.

The present study is limited by the use of a primarily female non-clinical population. It is important in future research to examine the generality (or otherwise) of irrational thinking in clinical populations and in those showing current suicidal ideation and behavior.

CAN SUICIDE BY A RATIONAL CHOICE?

Chapter 7

CAN THE DECISION TO DIE BY SUICIDE BE RATIONAL?

Wilber (1987) argued that suicides interpret their experiences differently from nonsuicidal people. They fail to realize that there are several options open to them and, as a result, see suicide as the only way to deal with their intolerable circumstances. Their hopelessness makes their evaluation of their circumstances astigmatic. But, given their astigmatic perception of reality, their decision to die by suicide appears to be a logically valid deduction. Wilber, is, therefore, suggesting that the premises of the suicide are false, but that their argument is valid.

This issue is dealt with in detail by cognitive therapists who view the thinking patterns of all distressed people as irrational. Irrational thinking about events leads to pathological emotions and behavior. These ideas were originally formulated by Albert Ellis (1962) in his Rational-Emotive Therapy. Ellis described several common irrational thoughts that often underlie thinking, such as the idea that we should be thoroughly competent, adequate and achieving in all possible respects in order to consider ourselves worthwhile and the idea that certain people are bad, wicked and villainous and that they should be severely punished and blamed for their villainy. Burns (1980) has described more general irrational thinking patterns such as overgeneralizing (in which one negative event is seen as a never-ending pattern of negative events) and catastrophizing (seeing a negative event as the worst thing that could ever happen to you).

Although in America, defendants in a criminal trial are assumed to be innocent until proved to be guilty, in France defendants are presumed to be guilty and must prove their innocence. Therapists who view irrational thinking as the basis for pathological emotions and behavior take the French position. They place the burden of proof on the client whom they believe is thinking irrationally. If after your marriage breaks up, you say, “I will never find happiness with a lover,” the cognitive therapist asks, “Where is the proof that you will never find happiness with a lover?” You are required to prove your belief. The therapist, who obviously is implying the opposite, is not required to prove his or her belief. I have known people who have never found someone to love them and who have never been in a long-term happy relationship. Some are in their sixties and, probably, never will

find anyone. Had they made those statements, labeled irrational by Ellis, they would in fact have been correct.[17]

Furthermore, although logicians define inductive arguments as those in which the premises provide some support, but not absolute support, for a conclusion, they do not define the word "some." Suppose I have been rejected by one lover, two, or perhaps three. How many must reject me to meet the criterion for "some support" for the inductive generalization? Conclusions are often judged to be irrational by cognitive therapists because the person has over-generalized, but cognitive therapists, like logicians, do not propose how many occurrences permit generalization.

The fact that inductive reasoning may sometimes lead to false conclusions is no argument against it. The possibility of false conclusions is inherent in the definition of inductive reasoning but, sometimes, it is the only form of reasoning available to us.

Is Suicide the Result of a Decision?

Before examining whether a decision to commit suicide can be rational, it is worthwhile considering whether suicide is the result of a decision. For example, if a schizophrenic hears a voice commanding him to jump off a building and fly and if he obeys, his resulting death is not the result of a reasoned decision. In this context, Goldstein's (1940) strict criteria for judging a death to be suicidal are relevant. Goldstein said that the person must have a mature concept of death and must consciously choose death. Only suicidal deaths which meet these criteria may be viewed as decisions.[18]

The more determinants researchers identify for a behavior, the less easy it is to claim that the behavior was a result of a decision. If schizophrenia is really the result of a genetically-programmed defect in the dopamine and nonrepinephrine neurotransmitters in the brain, then it makes little sense to talk about a decision to be schizophrenic. Similarly, if suicide can be shown to have biochemical and early event precursors, then the behavior appears to be more determined and less of a

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[17] I have had two close friends who never found a partner to love and marry. If they had said at an early age that this was their fate, their thinking would have been judged to be irrational but, in fact, it was an accurate prediction.

[18] Menninger (1938) had a much broader definition of suicide that included partial and unconsciously motivated self-destructive behavior.

decision. However, to date, it has been impossible so far to identify *necessary* and *sufficient* determinants for suicidal behavior.

Despite these caveats, suicidal individuals usually feel subjectively that they are making a decision, and those taking away our right to die by suicide view it as a decision (albeit an irrational decision). Therefore, asking whether the decision can be rational remains reasonable.

Can Psychiatrically Disturbed People Have Rational Premises?

This issue is so important in the discussion of rational suicide that it demands its own chapter (Chapter 4). Here I will simply note that some writers on this topic have used the psychiatric disturbance of most suicides as evidence that they could not have been thinking rationally. Pretzel (1968), for example, noted that we often endorse four types of suicide as rational: (i) suicides carried out for some cause (such as martyrdom), (ii) suicide as a reaction to a lingering, painful, and incurable illness, (iii) suicide where the individual is not receiving any pleasure from life, and (iv) love-pact suicides. Pretzel selected a case study of each of these types of suicide and demonstrated some degree of psychiatric disturbance in the people involved. He concluded that in each case there were psychopathological factors at work in the motivation of the suicide and, therefore, that the suicide was irrational. His approach was biased, of course, because he could have selected a non-disturbed case for each type of suicide since not all suicides are demonstrably disturbed. Although some psychiatrists have found almost all suicides to be psychiatrically disturbed in retrospect (e.g., Robins, 1981), not all psychiatrists agree, and estimates of the percentage of the psychiatrically disturbed in samples of suicides range from 5 to 94 percent (Temoche, et al., 1964).

Rationality and the Statistical Rarity of Suicide

The statistical rarity of suicide means that only a very small proportion of people experiencing any trauma kill themselves. For example, even among those diagnosed with an affective disorder or who have attempted suicide, only about 15 percent of their deaths are from suicide. The statistical rarity of suicide means that the precipitating conditions can never be considered necessary or sufficient. This fact leads many observers to judge suicide to be irrational.

Others, however, may view suicide as a result of particular precipitants as rational. This typically means that the observer thinks that he or she might also

have died by suicide under such circumstances. If we think that we might kill ourselves if we were dying from cancer, then suicide under those circumstances would be judged to be rational. If we would never immolate ourselves on the steps of the Capitol Building in Washington, DC, in order to bring peace to the world, then we would probably view such suicides as irrational. The judgment of suicide as rational on this basis is an example of the *subjective definition of normality*.

Nevertheless, when we feel that a suicide is precipitated by sufficient stressors, we may view the suicide as *understandable*, and Margolis (1975), for example, equates *understandable* with *justified*. In recent years, suicide d by people dying from painful incurable cancers or AIDS-related infections has been widely viewed as rational.

Do Unconscious Forces Make Suicide Irrational?

If you do not believe in the Freudian (psychoanalytic) or another form of the unconscious (Jungian or simply cognitive unawareness), then this is not an issue for deciding whether a decision is motivated in part by unconscious desires, thoughts and emotions. However, I believe in the existence of a Freudian unconscious, having become aware of its operation in my own life and of the usefulness of the concept for explaining human behavior, although I follow the version of theory presented by an Austrian psychoanalyst, Walter Toman (1960).

Unconscious motivations, in all likelihood, play a role in all of our decisions. For example, most of us are not fully aware of why we fell in love with those we loved; nor why we married them. Yet those decisions are not typically viewed as irrational.[19] Even those of our decisions that we believe to be fully rational may have unconscious determinants. Thus, if we do not call into question the irrationality of the majority of our decisions, why should we do so for the decision to die by suicide and, as a consequence, see it as appropriate to force someone into a psychiatric hospital (which should better be called a prison) in order to prevent them from carrying out this act.

Leenaars (1986) has documented the existence of unconscious determinants in suicide notes. Since the Freudian unconscious is typically viewed as using

[19] I have heard it claimed that falling in love is a time-limited psychiatrically disturbed state of mind, and that no decisions should be made while in that state of mind! I also remember a Bishop once telling an interviewer that he would die knowing that he made at least one person happy When the interviewer asked who, the Bishop replied, “The woman I didn’t marry!”

irrational thinking patterns, suicide motivated by unconscious forces may appear to be irrational. Leenaars and I have edited a book on the role of the unconscious in the decision to die by suicide. (Leenaars & Lester, 1996).

Further Definitions of Rationality?

As we can see, the word rational is used in many ways, and it is important to distinguish the various meanings and explore the implications of each for viewing suicide as rational or irrational. We have already discussed rationality viewed from the viewpoint of truth, necessary and sufficient causes, psychiatric disorder, statistical rarity, and unconscious motivation. Other viewpoints are possible.

Empirical Judgments of Rationality

We might look at the outcome of the suicidal action as a basis for deciding whether the suicidal action was rational or not. For example, if the suicidal action changes the person's life for the better, perhaps it was a rational action? Certainly, as Nietzsche is commonly quoted as saying, the thought of suicide helps many people through a crisis. An individual can say that, if things get worse, he can always kill himself, a thought that gives him enough energy and motivation to live another day during which time, perhaps, the strength of the suicidal impulse decreases. To take another example, one patient who, when assured that no one would interfere if she tried to kill herself, decided not to do so since now she felt back in charge of her life.

Attempted suicides are often pleased with the changes in interpersonal relationships brought about by their suicide attempt. But can we say that the completed suicide ever changes their life for the better? This of course depends on how one evaluates the life which the suicide is leading relative to death. Was death worse than life in a concentration camp under the Nazis? Surprisingly, few inmates of those camps died by suicide, although Lester (2005) has shown that previous estimates of very low suicide rates were erroneous.[20] Perhaps they viewed life as better. Yet many did die by suicide, directly or indirectly, and so perhaps they viewed death as better. The judgment made by the prisoners was subjective.

Rational or Autonomous

[20] His estimates suggest that the suicide rate could have been as high as 25,000 per 100,000 per year.

Beauchamp and Childress (1979) have noted that suicide can be an autonomous act by a person (that is, an act that is freely chosen[21]), and suicide by an autonomous individual which also meets utilitarian criteria (maximizing good and minimizing harm) is possible. Hauerwas (1981) felt that autonomous individuals could die by rational suicide, although he found such suicides not to be morally justified.

Can suicide be the action of an autonomous individual? The right of people to refuse extraordinary medical treatment has been viewed as acceptable by the federal courts in America, and suicide differs from this only in the activity (versus the passivity) of the behavior. Suicide is not illegal in any American state and so, at least by implication, individuals have the right to die byt suicide.

Rational Versus Emotional

Hauerwas (1981) contrasted rational suicide (which he defined as cool and unemotional) with (by implication) emotional and impulsive suicide. He gave the Stoics of ancient Greece as examples of rational suicide using these criteria. Can suicide ever be the action of a cool and unemotional person? Such suicides probably exist, although we would need neutral observers to be present to witness the death in order to be sure. Some of the suicides by terminally-ill individuals probably meet this criterion. As far as we can tell, Freud's physician-assisted suicide, for which he had made arrangements many years earlier, may well have met this criterion.

Economic Views of Suicide

Can suicide be rational using the criteria of economists? Yeh and Lester (1987) presented a cost-benefit analysis of suicide in which the individual is assumed to weigh the costs and benefits of suicide as a strategy as compared to the costs and benefits of other alternatives. Clarke and Lester (1989) have also presented such an analysis. Thus, if these analyses have merit, it may be that suicide maximizes utility. Yang and Lester (2006) reviewed several economic theories of suicide which conceptualize suicide as a rational act, including the cost-benefit analysis mentioned above, a demand-and-supply model, a lifetime utility maximization model, a labor-force analogy model, an investment under uncertainty mode, and a signaling game.

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[21] The definition of autonomous is a person or entity that is self-controlling and not governed by outside forces

In psychoanalytic theory, desires, both conscious and unconscious, motivate all behavior, and all behavior is a compromise of conflicting desires. Thus, choices in this perspective can always be seen as maximizing psychological utility. The fact that some of the desires may be unconscious has no relevance to this criterion.

Does the Decision to Die bySuicide Follow Rational Laws?

Lester (1996-1997) presented students with scenarios in which they had AIDS and had differing probabilities of surviving for one year and different levels of pain. When asked to estimate the probability that they would die by suicide under these circumstances, their estimate was higher the more pain and the greater the chance of dying within a year from AIDS. The results made sense. This is what one would expect rational people to decide.

Lester (2003) suggested that decisions to die by suicide that follow meaningful psychological principles can be considered to be rational. Whereas many commentators assert that depressed people cannot make a rational decision to die by suicide *because* they are depressed, Lester argued that it is more rational for depressed people to die by suicide than for happy people to die by suicide.

Making a Rational Decision to Die by Suicide

Lester (2003) laid out a process by which individuals could make a rational decision to commit suicide.

(1) First, individuals should list all of their current problems. Are you depressed, lonely, an alcoholic, etc?

(2) Lester suggested that individuals should follow Greenwald's (1973) system of Direct Decision Therapy and consider whether they made a decision to have this state or problem. Did you decide to be depressed, for example? When and under what circumstances? Greenwald considered all problems to be the product, at least in part, of a decision made by the individual at an earlier time in life. When the context in which the decision was made is discovered, then the decision does not appear to be as irrational or inappropriate as one might think.

(3) If the individuals are considering suicide at the present time, what is it about the problems that lead them to consider this? Is it the physical pain, the limitations on your lifestyle, the financial burden to your family, etc?

(4) Taking each of these features in turn, suicide is clearly one option. What are other options? If you are concerned about the burden on others who may have to disrupt their life in order to take care of you, are there other alternatives, such as relatives for whom it would not as much a burden, a home health-care aide who could come to perform some of the chores, or a hospice to go to until death?

Each option, suicide and the alternatives, have costs and benefits. In Direct Decision Therapy, Greenwald has his clients specify these costs and benefits for each alternative course of action. Lester suggested getting those involved in your life to collaborate on this task and to keep careful written notes that can be referred to when needed.

The involvement of significant others is crucial here. You may worry about the financial burden on your loved-ones and on leaving them some inheritance, but they may not be concerned about this at all. They may choose to have you in their lives for a longer time and forego any inheritance. You may worry that they cannot cope with the nursing care you will need, but they may view this as manageable.

(5) If, after going through all of these steps, you choose to die by suicide, it is important that your significant others have some input. They need to express their point of view and listen to yours, and, if possible, a mutually agreed-upon decision made. But, in the end, it is your life and your decision.

(6) Finally, Lester noted that decisions are not necessarily final. You can change your mind. You can choose to undergo chemotherapy for your cancer and, after a while, change your mind. You can decide to die by suicide, but change this decision as you make the preparatory steps.

An Example

A good example of this process comes from the Netherlands, reported by Diekstra (1995). Mr. L had cancer and was given no more than six months to live. He was a retired civil servant, a stubborn man with a defeatist attitude toward life. His wife was informed of his prognosis first and communicated this to her husband, after which he declared that he wished to end his life with medications. He felt that his life was useless, and he feared dependence on physicians, burdening his wife with nursing, and the degeneration of his body.

One of his sons was a physician, but he refused to become involved with his father's decision. Mr. L's general practitioner refused to provide medications but said that he would withhold treatment if, for example, Mr. L caught pneumonia. The other family members did not object to Mr. L's suicide, but Mr. L's wife thought that it was too soon for him to die. Their relationship was still rewarding, and she saw that her husband could still enjoy some aspects of living, at least for a while. She did not want him to die in pain from the cancer, but she also feared that her husband might try to kill himself by other, more violent methods if he was not provided with medication, a situation that she would find traumatic.

At Diekstra's suggestion, Mr. L's wife told her husband that she thought it was too early for him to die and that she would miss him if he died at that moment. He was pleased to hear this and glad that he was still needed. He agreed to postpone the decision, but he wanted assurance that he would be given the medication when the appropriate time arrived. He was given this assurance, and he lived for two more months.

Diekstra noted that, apart from simply providing the man with the necessary medication for suicide, he acknowledged the acceptability of Mr. L's request and mobilized communication within the family, getting the wife and the children involved. Mr. L came to feel less anxious and agitated, and he was able to participate more constructively in the life of his family for his final two months of life. The process improved the quality of life for both Mr. L and his family.

Diekstra pointed out that "assisted suicide" means more than just providing the medications necessary for death. It should also involve providing technical information on the means for dying by suicide, removal of obstacles such as getting the person released from an institution, giving advice on precautions and actions (such as making a will), and remaining with the person until the very end. We might add that it should also involve the counseling of both the client and the significant others by a counselor who is sensitized to the issues involved.

Another excellent example of this process is provided by Roman (1980) who documented her decision to stop chemotherapy for cancer and to die by suicide. She made the decision along with her husband and also involved her friends and relatives in the process.

Discussion

What I have tried to accomplish in this chapter is to present a set of definitions to clarify the question of whether suicide can be logical or rational. Irrationality can refer to: (1) the degree of psychiatric disturbance of the individual, (2) the statistical rarity of a behavior, (3) whether there are unconscious processes motivating the behavior, at least in part, (4) whether the behavior improved the state of the person, (5) whether the behavior was that of an autonomous individual, (6) whether the decision was affected by emotional states, (7) whether the behavior maximized utility, and (8) whether we find the reasons for the behavior to be acceptable. Of course, some of these criteria might be judged more salient to the decision to die by suicide than others.

Obviously suicide can be irrational. The critical question, therefore, is whether suicide can ever be rational. Since we are rarely around the individual who is about to die by suicide and since there are few standardized psychological tests to measure the variables involved in the criteria listed above, the question may be unanswerable. However, some investigators do find some suicides to be free of psychiatric illness, and some suicides meet the criteria for being autonomous individuals. Occasional suicides do seem to improve the state of the person and maximize utility (both for the suicide and the society). And, unless one thinks that suicide is never acceptable, most of us could find acceptable reasons for suicide. However, suicide is always statistically rare and, if one accepts the existence of the unconscious, is probably always motivated in part by unconscious forces.

Finally, there may be some suicides for whom their premises are true or, at least, not demonstrably false, and whose reasoning is valid and free from the many kinds of fallacies which logicians have described (Engel, 1986), and this might be most easily demonstrated by those suicides who meet the economists criteria for maximizing utility.

I studied the lives of thirty suicides sufficiently interesting and famous for biographies and autobiographies to have been published (Lester, 1991). Do any of those lives fit the criteria above? The presence of psychological disturbance in many of the suicides makes it difficult to be sure without an interview with the person prior to their death to explore whether some of the criteria listed above could be met. However, the physician-assisted suicide of Sigmund Freud, who was in the end stages of a painful cancer (Gay, 1988), came closest to meeting many of the criteria.

Chapter 8

THE LOGIC OF SUICIDAL INDIVIDUALS

Logic may be defined as the study of the laws of thought or the study of reasoning, but such a definition fails to distinguish logic from psychology. Psychology describes the ways in which people actually reason. In contrast, logic sets standards for the ways in which people ought to reason if they wished to reason well. Logic evaluates the quality of the reasoning.

Sentences are said to be cognitive when they are used to express or assert something which may be true or false (Baum, 1974). The thought conveyed by a cognitive sentence is called a statement or proposition. The truth or falsity of a statement may depend upon the truth or falsity of related statements – commonly called supported statements. Other statements can stand on their own – self-supporting statements. The burden of proof for a statement being self-supporting falls on those who consider it to be false. Two statements may be consistent (it is possible for both to be true at the same time) or inconsistent (it is impossible for both of them to be true at the same time). An argument is a set of statements which is such that one of them (the conclusion) is implied or supported by the others (the premises).

There are two critical evaluations in logic. Validity refers to arguments of which, if the premises are true, then the conclusion must also be true. Truth refers to whether the premises or the conclusions are true or false. A valid deductive argument is one where, if the premises are true, then the conclusion must be true. An argument whose premises provide some support, but not absolute support for the conclusion, is called an inductive argument.

Thus, analysis of the logical of suicide entails first describing the reasoning engaged in by the suicidal person, evaluating the validity of the reasoning, and finally evaluating the truth of the premises and conclusion. Arguments that are both true and valid may be called sound.

Shneidman's Views on the Logic of Suicide

Shneidman (1970) noted that the formal logic of suicidal reasoning is not as interesting as the actual style of reasoning used by the individual, what he termed *concludifying*, that is, how the individual reaches conclusions, thinks, reasons and infers. Shneidman called the individual's style of concludifying his or her *idio-logic*. Idio-logic includes both the aspects of reasoning which might be subsumed

under the traditional fallacies of reasoning, as well as the cognitive maneuvers which describe the cognitive style of the individual. In addition, Shneidman analyzed the *contra-logic* of the individual, that is, the private epistemological and metaphysical view of the universe inferred from the idio-logic. Finally, there are overt and covert aspects of personality which are related to and reflective of the individual's style of thinking, his or her *psycho-logic*. In this chapter, I am concerned only with the idio-logical of the suicidal individual.

Logic Versus Psychologic

In several papers, Shneidman made a distinction between pure logic and the logic that ordinary people use, psychologic. As an example of this, Shneidman (1982a) considered the use of the word "therefore." He argued that people use the word in ways that do not imply "always" or "under all circumstances". Shneidman suggested that the mind does not syllogize in a logical sense, but rather concludifies (comes to conclusions) in a psycho-logical sense. Therefore, I must die by suicide" may mean a variety of things to the individual, such as I may die by suicide, I ought to die by suicide, I should die by suicide, I might die by suicide, I shall die by suicide, and I must die by suicide. The thought may refer to the present time or the future. It may refer to all circumstances or only to some circumstances. Shneidman warned psychotherapists to be aware of this flexible usage of the word "therefore" and to take care to understand precisely what the client means, rather than simply assuming that the client is using the word in a formal logic sense. Shneidman noted that the use of the word "therefore" by people is closer to the Persian logic of centuries ago which included the temporal dimension of ubiquity versus occasionality as well as a dimension of necessity or certainty versus probability.

Fallacies

Shneidman and Farberow (1970) suggested one fallacy that suicidal individuals may make in their reasoning. Although they called this type of reasoning *catalogic*, since it destroys the reasoner, they also called it, more accurately, a *psychosemantic fallacy*. They suggested that some suicidal individuals confuse the self as experienced by themselves with the self as experienced by others. If the suicidal individual reasons, "If a person kills himself, he gets attention; I will kill myself, therefore I will get attention," the "I" that kills is the self as experienced by the self while the "I" that gets attention is the self as experienced by others. This fallacy is called by logicians the fallacy of equivocation (Engel, 1986). Shneidman and Farberow noted that this fallacy is

avoided if the suicidal individual believes in a life after death in which case he or she will be able to watch the reaction of others.

Shneidman (1970) gave other examples of fallacies in suicidal thinking. One very brief suicide note read as follows: "I love everybody but my darling wife has killed me." Shneidman noted the suppressed premise – therefore, I kill myself. The man's logic is: If X loves Y and Y kills X, then X must kill X. Once this suppressed premise is added to the argument, then the fallacy of equivocation in the use of the word *kill* is apparent. Kill used figuratively in the overt premise to mean betray or violated, while in the suppressed premise it is used literally.

The Idio-Logic of Cesare Pavese

Shniedman (1982b) examined the diary of Cesare Pavese, the Italian writer who killed himself in 1950, and identified two styles of thinking in Pavese.

(1) A style of combining opposites, juxtaposing assertions with denials and contradictory ideas. For example, "The richness of life lies in memories we have forgotten" (February 13, 1944) or "The unique event which you find so exciting can only have its full value if it has never taken place" (February 13, 1945).

(2) A constricting style of thinking so that he limited his options to a narrow few. For example, "To choose a hardship for ourselves is our only defense against that hardship….This is how we can disarm the power of suffering, make it our own creation, our own choice; submit to it" (November 10, 1938). Pavese perceives only one option here, whereas in fact there are many strategies open to him.

In addition, Shneidman observed a different form of illogical reasoning. "If I were dead, she would go on living laughing, trying her luck. But she has thrown me over and still does all those things. Therefore, I am as dead" (February 25, 1938). "If A, then B" does not imply "If B, then A." This error in propositional logic is commonly called *affirming the consequent* (or consequence). "If I drop objects, they fall to the ground" does not imply. "This object fell to the ground (imagine a meteor), therefore I dropped it." The word "as" in the phrase "I am as dead" possibly makes Pavese's argument literary rather than (il) logical, but using such phrasing may well have shaped Pavese's reasoning.

Shneidman noted that Pavese's suicide was not due to faulty logic. Rather Pavese's style of thinking and reasoning directly predisposed him to make a suicidal decision when the stress he felt was great.

Conclusion

It would appear that, unless a person has grossly psychotic thought patterns, then the logic of suicidal individuals is fine. It is their premises or assumptions that critics call into question.

Chapter 9

THE ISSUE OF PSYCHIATRIC DISORDER

In this chapter, I will discuss the critical issue of whether the presence of a psychiatric disorder in individuals precludes them from making rational decisions. In doing so, I will present a strong critique of the field of psychiatry which, in my opinion (and that of others such as Thomas Szasz [1974]) has departed from the tenets of good scientific theory and even those tenets of the model on which it is based (the scientific study of medical diseases). I will present my argument as a series of *objections*.

Objection 1: The Diagnostic System

To introduce you to my major objection, let us assume you have a headache and a fever. You go to your family physician, and he tells you that you have a disease called headache-fever, or HF for short. What would you do? You'd run as fast as you could out of his or her office and look for a good doctor. Medical illnesses are based on causes. What is causing your fever? What is causing your headache? Is it caused by a virus or bacteria? If so, which ones? Lyme's disease or swine flu? Is it because of a brain tumor and, if so, is it malignant or benign?

Psychiatric disorders or mental illnesses are not defined by causes. They are defined by clusters of symptoms. Let us say you are depressed. Maybe it is because you do not have enough serotonin in certain regions of the brain. Maybe you have suppressed or repressed your anger felt toward significant others in your life so that you are no longer conscious of the anger (a Freudian, psychoanalytic view). Maybe it is because you have learned from your life's experiences that you cannot get of the traps in which you find yourself (learned helplessness). Maybe it is because that are not enough rewards (positive reinforcers) in your life, either because you are in unrewarding relationships and employment or because you lack the skills to obtain rewards from others (a learning theory perspective).

Maybe it is simply the melancholia that is part of all of our lives (Wilson, 2008). Where is it ordained that we deserve to be happy? A friend of mine from our childhood days lost his wife to brain cancer when they were in their early 50s, leaving him with their two adolescent children. He grieved, but his physician thought that he was depressed and prescribed him Prozac, gradually increasing the dose to three times the recommended amount, a dose so high that that his doctor had to wean him off it gradually when he realized that it had not helped his grief. He was **NOT** psychiatrically ill. He was grieving, and it takes each of us a different

amount of time to get over such a loss. Today, twenty years later, he is fine, and involved in a new relationship and enjoying life. Eric Wilson's book argues that melancholy is a normal state of humans from time to time, even for long periods of time. Melancholy is *not* a disease.

If your depression is blocked anger, then a psychiatric pill is a stupid treatment. Help the person recognize and deal with his or her anger. If the depression is learned helplessness, then teach them coping skills so that they do not feel helpless. If I were in charge of the National Institute of Mental Health, I would abandon the current system and put out a "call for proposals" for a new diagnostic system based on causes.

Don't be fooled by the new revision of the *Diagnostic and Statistical Manual* (DSM). For example, Version 5 was not an improvement. For example, on pages 160-161, it lists the criteria for diagnosing a *major depressive disorder*. There is a list of 9 symptoms that must be present for at least two weeks. Here is an abbreviated version of each symptom: (i) depressed mood most of the day, (ii) diminished interest in all activities, (iii) significant weight loss (without dieting) or weight gain, (iv) insomnia or hypersomnia, (v) psychomotor agitation or retardation, (vi) fatigue or loss of energy, (vii) feelings of worthlessness, (viii) diminished ability to think or concentrate, and (ix) recurrent thoughts of death and suicide. DSM-5 does discuss associated features, prevalence, development and course, risk and prognostic factors, culture-related diagnostic issues, gender-related diagnostic issues, suicide risk, functional consequences of major depressive disorder, differential diagnosis, and comorbity. But the criteria for this disease, disorders, or illness (call it what you will) still do not involve *causes*!

Part of the motivation for revising the DSM is that psychiatrists cannot agree on which "illness" patients have. Using an older version of the DSM, Beck and his colleagues (1962) found that four psychiatrists, individually interviewing the same psychiatric patients, agreed only 54% of the time for the specific diagnosis and only 70% for the major category (schizophrenia, affective disorder, anxiety disorder, personality disorder, etcetera). In another study of the older version of the DSM, Sandifer et al. (1968) had psychiatrists in three cities view tape-recorded interviews of psychiatric patients. In North Carolina, the patients were more often labeled as having neurotic disorders, In Glasgow, Scotland, the same patients were more often labeled as having personality disorders, and in London (England) the patients were more often labeled as having bipolar affective disorder (manic-depressive disorder)!

There have been three modern critiques of the current psychiatric system. Robert Whitaker's *Anatomy of an epidemic: Magic bullets, psychiatric drugs, and the astonishing rise of mental illness in America*, Irving Kirsch's *The Emperor's new drugs: Exploding the antidepressant myth*, and Daniel Carlat's *Unhinged: The trouble with psychiatry.* These books were favorably reviewed by Marcia Angell, a former editor of *The New England Journal of Medicine*, a prestigious scholarly medical journal, in *The New York Review of Books* (June 23 and July 14, 2012). Whitaker, for example, argues forcefully that (i) there is no sound evidence that psychiatric disorders have a physiological basis, (ii) psychiatric medications create chemical imbalances in the brain that persist even when patients stop taking the medications and that cause the brain to behave abnormally, and (iii) patients given placebos (particularly those that create harmless but noticeable side-effects [the so-called active placebos]) improve as much as patients given psychiatric medications. Loren Mosher, a prominent psychiatrist, resigned from the American Psychiatric Association back in 1998, accusing the association of selling out to the pharmaceutical industry that markets psychiatric medications.[22]

I am not arguing here that these writers who have attacked the psychiatric model are one hundred percent correct. I am saying that readers should be aware that there are strong voices (besides mine) arguing that the psychiatric model is seriously flawed and needs drastic revision.

One final comment here. If you decide to kill yourself and if you want to use a medication, you will have problems getting prescriptions in order to obtain sufficient medication. Who will find it most easy to accumulate the lethal overdose? Psychiatrists and physicians, of course! Despite their view of suicide as a symptom of mental illness, Leeman (2009) quotes a former President of the American Psychiatric Association as saying that many "experts" on dying, including physicians, have either made quiet arrangements with their own doctors or have arranged to have a store of pills available. Suicide is ok for them, but not for us!

Objection 2: Are Those with Psychiatric Disorders Incapable of Rational Thought?

The Role of Insight into the Disorder

[22] www.oikos.org/mosher.htm

There is a well-known joke that you may have heard. A man was driving in the rain along a country road and gets a flat tire. He gets out in order to change the tire, and he notices that he is parked outside a psychiatric hospital, and there are patients strolling around (with umbrellas, of course). Some come to the fence to watch him. He jacks the car up, takes the nuts off the wheel, put them in the hubcap and, as goes to the trunk to get the spare tire, he accidentally kicks the hubcap, and the four nuts disappear into a muddy ditch, lost forever. He is stunned. How can he attach the spare tire to the axle? One of the psychiatric patients says, "Hey Buddy, just take one nut from each of the other three wheels and use those to attach your spare wheel." "That's brilliant," the man said. "I would never have thought of that. But how did you think of it? You're a psychiatric patient here, aren't you?" The patient replied, "I'm here because I'm crazy; not because I'm stupid."

How can I persuade you that psychiatric patients, even schizophrenics (people who have the most severe symptoms such as hallucinations and delusions) can think rationally?

Schizophrenia, a psychosis, often involves a thought disorder and a lack of contact with reality. So what happens if schizophrenics gain some insight into their disorder? Does this insight help the schizophrenics adjust to life and fill them with hope? Apparently not! It had long been observed that insight seems to fill them a sense of resignation and despair which leads to hopelessness and an increased risk of suicide. Some commentators do not necessarily view this as evidence for rationality (e.g., Wilson & Amador, 2007), but it suggests rationality to me. The lives of schizophrenics can be hellish and, as long as they can remain unaware of their plight, then perhaps their lives are more bearable. But gaining insight into the disorder may be similar to gaining insight into the fact that we have an incurable cancer. Some cancer patients choose to try any and all treatments and "fight" the cancer. Others decided to forego that pain and suffering of the cancer (and the pain and suffering of the treatment), even to the point of choosing to die by suicide. If we consider that decision to be rational, surely the decision of a schizophrenic to avoid the pain and suffering of schizophrenia (and the reduced quality of life) is also rational?

Insight entails three components: (i) awareness of the illness itself, (ii) awareness of the need for treatment, and (iii) awareness of the consequences of the disorder. Components (i) and (iii) are the most likely to lead to hopelessness and despair. Kim et al. (2003) studied 333 patients with chronic schizophrenia and asked whether they were aware that they had a mental illness that was due to a

biological basis, how hopeless they felt, and their suicidal behavior in the prior month. Recent suicidal behavior was associated with greater hopelessness and more insight into their disorder.[23] Their score on an intelligence test was not associated with whether or not they had engaged in recent suicidal behavior. In a paper I wrote with Maurizio Pompili (Pompili, et al., 2007), we concluded that:

> In summary, research to date suggests that awareness of illness is indeed associated with increased suicide risk in this population, but only if that awareness leads to hopelessness. This conclusion is consistent with the literature demonstrating the relationship between hopelessness and suicide….and helps to reconcile those research findings with the positive prognostic implications of improvement in awareness of the illness…..The severity of the hopelessness that a person with schizophrenia experiences seems contingent, at least in part, on the level of premorbid functioning and the magnitude of the decline in functioning relative to that premorbid capacity. (p. 6)

Therefore, the more aware schizophrenics are of how much the disorder has affected their life and the more severe the impairment, the more hopeless and suicidal they feel.

The vast majority of psychiatrists view suicide as an indicator that a person was mentally ill. Robins (1981) diagnosed almost all the suicides whom he studied after their death, knowing their cause of death, as psychiatrically disturbed. In all the studies in which psychiatrists have diagnosed suicides after their death, they have known the cause of death. No post-mortem study of possible mental illness in suicides and a comparison group (say those who died in single car motor vehicle crashes) has been done in which the psychiatrists did not know the cause of death! Furthermore, some diagnoses, such as borderline personality disorder and the affective disorders have suicidal behavior as one of the cluster of symptoms defining the disorder, which means that an explanation of suicidal behavior using these diagnoses is a circular argument and, therefore, meaningless.

If psychiatrists view the suicides of individuals who have a mental illness as controlled or coerced by the illness, then it is very difficult to explain why only a tiny proportion of those with mental illness die by suicide. Estimates vary for this proportion, with 5% of the deaths of schizophrenics from suicide a commonly cited proportion. I conducted an analysis which showed that, if we were to wait for the

[23] And also substance abuse

whole cohort of schizophrenics to die (rather than working out the proportion of deaths from suicide after a five-year or ten-year follow-up), then the proportion was only 0.5% for male schizophrenics and 0.2% for female schizophrenics (Lester, 2006). Suicide, therefore, is quite rare even in schizophrenics.

Rational thinking in Schizophrenia

Hewitt (2010) pointed out that psychiatrists view schizophrenics (who have the most severe psychiatric disorder) as globally irrational, that is, irrational in every aspect of their thinking and reasoning. As such, they cannot be viewed as having autonomy. Whereas those with medical illnesses can refuse treatment, if psychiatric patients refuse treatment, this is seen as evidence of their irrationality, and treatment can be forced upon them. Is there any evidence that schizophrenics have global irrationality? Hewitt argued that there is none and that schizophrenics can think rationally in many aspects of their life.

In England, there is a law that governs the treatment those with organic diseases of the brain (including intellectual disability [mental retardation] and dementia) called the Mental Capacity Act. Under this act, individuals are judged to lack capacity when they are unable to make decisions because of impairment or disturbance in the functioning of the mind or brain, either permanently or temporarily. They cannot understand or retain relevant information, cannot weigh that information in order to make a decision, and cannot communicate that decision to others. This Act is not applied to mental patients in England, but it would seem a good idea to do so.

One problem with this Act is that there are no agreed upon procedures to assess this capacity. Research, however, has found no evidence that psychiatric patients lack capacity. Cairns, et al. (2005) interviewed 112 newly admitted psychiatric patients, and only 44% were judged to lack mental capacity. These patients more often had delusions (but not hallucinations) and more severe symptoms, but less insight. They were more often diagnosed with psychosis and mania. Kemp, et al. (1997) compared the ability of patients with delusions to normal individuals on tests of logical reasoning. Both groups made errors, and there were no overall differences between the two groups in the number of errors. Owen, et al. (2008) examined 338 psychiatric patients using the Mental Capacity Act criteria and found that 40% had the capacity to make informed decisions about the treatment needed. This percentage varied by diagnosis, from 96% for those with a personality disorder to 19% for patients with schizophrenia and 3% for patients in the manic phase of bipolar affective disorder. Finally, Owen, et al.

(2007) found that schizophrenics performed *better* than healthy individuals on a test of syllogistic reasoning!

Hewitt concluded that psychiatric labeling permits psychiatrists in the UK to force treatment onto psychiatric patients and override the patients' autonomy. This is immoral. It is less of a problem in the United States, since psychiatric hospital beds have been drastically cut over the last few decades, without a comparable increase in community facilities to take care of the psychiatric patients who can no longer be provided with a hospital bed. The net result has been the "lodging" of psychiatric patients in jails and prisons. For example, *The Economist* (August 3, 2013, p. 24) noted that in Cook County (Illinois), the county in which Chicago sits, there are between 2,000 and 2,500 people with diagnosable mental illnesses in the jail.

Mental versus Physical Pain

Hewitt (2013) noted that mental pain is not given equal weight by physicians as physical pain. The medical model, which is a belief system of most psychiatrists, proposes that mental illness have physiological causes, primarily in the brain, and can be cured using psychiatric medications. We could hoist psychiatrists on their own petard. If they believe that mental illnesses have physiological causes, then they are similar to medical illnesses and, therefore, the pain of mental and physical illnesses are both "real."

Hewitt argued that, in order to be rational, suicide must be viewed as an understandable reaction to life circumstances by others; be associated with unendurable suffering; be in accord with a reasonable appraisal of future outcomes in terms of a cost-benefit analysis; have some connection with reduced life expectancy; and be unaccompanied by psychological dysfunction. Others have added that the decision must be free of severe emotional distress. I would argue that the views of the "others" mentioned be Hewitt above are immaterial. We may choose to take into account the views of those others but, for most decisions in life, we are free to disregard their views. I would also argue against the role of psychological dysfunction. Having had cancer myself, which was not terminal, I can assure you that my cognitive functioning was impaired and that I was in severe emotional distress. Severe medical illnesses do not differ greatly from mental illnesses in these respects.

Hewitt noted that the thought disorder and break with reality in schizophrenics (and other psychotic individuals) is not global. Typically, the

thought disorder is isolated in a small, discrete domain. For example, schizophrenics with delusions are not delusional about everything or at random. Outside of this discrete domain, schizophrenics can make intentional, reasonable and rational decisions about many issues. Furthermore, symptoms are not always continuous. Individuals with mental illnesses have periods of good functioning and periods of worse functioning.

It is not true that all psychiatric patients can be treated and their symptoms removed. Indeed, psychiatrists write many scholarly articles about "treatment resistant" patients, seemingly blaming the patient rather than themselves for the patients' failure to improve. In addition, psychiatric medications have side-effects which may depress the quality of life. In the 1980s, schizophrenics were given phenothiazines which resulted in the symptoms of Parkinson's Disease, except that psychiatrists named it *tardive dyskinesia*, possibly to hide the dangerous nature of the side effects. Lithium given to creative individuals with bipolar affective disorder (manic-depressive disease) diminishes their creativity which, for a creative artist, takes the meaning out of their lives.[24] I have friends who were given Prozac and other similar medications (the SSRIs), one of whom drinks a bottle of Pepto-Bismal a day because of the stomach distress, and another who refused to take it because she felt it deadened her mind. Hewitt noted that psychiatrists sometimes use coercion to make patients take their medication which patients report as dehumanizing and humiliating. Compulsory hospitalization, the use of physical and chemical restraints, and isolation rooms make psychiatric hospitals similar to prisons, as Szasz (1974) has long argued.

Hewitt reminds us that psychiatric patients, especially those with severe disorders, experience "loneliness, daytime inactivity, unemployment, psychological distress, and difficulties with sexual expression. They are and will remain poor and marginal members of the society until their death. They live in a permanent state of hopelessness and existential distress which is based on a reasonable appraisal of their future prospects. They face stigma from others and the prospect of numerous relapses once they are released as "in remission." Werth (1996) and others have argued that the suffering caused by chronic mental illness may be equivalent to the suffering endured by the terminally ill.

Hewitt does not agree that all those with psychiatric disorders are capable of making rational decisions. She limits those who can make rational decisions to

[24] Many creative individuals have refused to take the lithium, including the poet Anne Sexton and the yippie Abbie Hoffman, both of whom later died by suicide.

those who are (i) not acting impulsively, (ii) not under extreme emotional distress, (iii) not acting because of delusions or command hallucinations (telling them to jump in front of a train, for example), (iv) capable to make cost-benefit appraisals of alternative courses of action, (v) perceive their situation as unendurable, (vi) have a realistic perception of death, and (vii) do not have conditions that are treatable or remediable.

Objection 3: But Mental Pain is not Real Pain!

This issue was discussed by Hewitt above. Many people, mental health professionals and the general public, view the pain and suffering associated with terminal illnesses as sufficient cause for the decision to die by suicide, but not mental pain. Is this reasonable? As I have argued above, I think not.

Jackson (1992) studied a pain center and found out that those treating them take a multidisciplinary approach involving physical therapy (exercise, ice massages, and transcutaneous nerve stimulation), cognitive therapy (relaxation training and biofeedback), and psychotherapy (individual and group). When she talked to the patients there, she found that many objected to the treatment since it implied that their pain was not real, but in the mind. Physical pain has a mental component too, it appears, a view held by other physicians (Sullivan, 2001).

A Case Study

There is a recent case in which schizophrenics as a group thought and made proposals that were more rational than those of normal people (if one considers those in local government normal).

In June 1997, the Schizophrenia Society of Ontario endeavored to get the Bloor Street Viaduct in Toronto fenced in, to prevent people jumping to their death from it, after they had learned that four of their members had died by suicide from the bridge.[25,] This bridge, formerly known as the Prince Edward Viaduct, had been the site for 74 suicides and 16 attempts since 1990.[26] On October 30, 1997, Martin Kruze, a 35-year-old man who went public with his experiences as a teenager of sexual abuse at the hands of employees at the Toronto Maple Leaf Gardens, died

[25] There is also danger from the suicides to cars passing under the bridge.

[26] The figures 37 and 93 have also appeared in newspaper reports. About 300 people have jumped since its construction in 1919. It accounts for half of all bridge suicides in Toronto.

by suicide from the bridge. Several suicides followed in the next few weeks, including a 17-year-old student at St. Michael's Choir School.

Other strategies proposed for suicide prevention at the Bloor Street Viaduct included emergency telephones distributed across the bridge, police and community patrols, and changing the public perception of the bridge. There are reports of other bridges with telephones: the Mid-Hudson Bridge in Poughkeepsie (NY), the Coronado Bridge in San Diego (CA), the Golden Gate Bridge in San Francisco (CA), the Howard Taft Bridge (DC), the Gateway Bridge in Brisbane (Australia), the Clifton Suspension Bridge, Bristol (UK) and the Erskine Bridge (Scotland). There is a bridge patrol for the Golden Gate Bridge, but no fence.

Different groups lined up on the two sides regarding the construction of a fence. In opposition were the Toronto Historical Board and right-to-die groups. Opponents argued that people would simply switch methods if the bridge was fenced in, fencing would deface this landmark bridge, the money involved could be put to better use, and the measure would lead to all bridges being fenced in. In favor were the Toronto Police Department and mental health groups. The Schizophrenia Society solicited letters of support from experts, including Dr. Isaac Sakinofsky at the local Clarke Institute of Psychiatry and myself.

A petition obtained 1,200 signatures, and supporters visited over 46 city councilors in the winter of 1998 to solicit their support. On July 8, 1998, the 57-member city council voted unanimously to hold a design competition for the fence, and $1.5 million was budgeted for the fences and telephones. A luminous veil design from Derek Revington won, and the council approved the design on October 1, 1998.

A subway track runs under the road level of the bridge, and the Toronto Transit Commission objected to the barrier since it would interfere with their inspection of the track which was done by means of a truck with an articulated arm parked on the road level which the fence would have impeded.

The Schizophrenia Society and its supporters worked hard to gather support for the fencing. On March 31, 1999, the Urban Environment and Development Committee approved funds for a modified truck for the Transit Commission. The architects increased their estimates of the cost of the fencing to $2.2 million, and on May 12th, 1999, the Council approved this. Construction of the fence was to have been completed by 2000.

But, then, in the Fall of 1999, the bids for the bridge came in at $5.5 million, and the new Works Committee was composed of city councilors unfamiliar with the project. The Schizophrenia Society once more had to seek support for the project, both in the local community and from experts around the world. The project was once more put on-hold.

The safety fence (called *The Luminous Veil*) was finally funded in 2001 and completed in 2003, after six years of effort by proponents of the fence. As of 2005, there had been no suicides since its construction. Two facts are important here. First, the Luminous Veil received a Canadian national engineering award for design excellence and it is thought to have improved the aesthetics of the Bloor street viaduct.

Second, with regard to cost, John Bateson of the Contra Costa Crisis Center in California has pointed out that cost was not an issue when $5 million was spent to build a barrier to separate cyclists from cars on the Golden Gate Bridge (no cyclists have ever been killed on the bridge), nor when a meridian was installed to prevent head-on collisions (from which there had been only 40 fatalities as compared to 1,300 suicides).

In this case, therefore, schizophrenics displayed more common sense than government officials!

Psychobizarre Theory

Before ending this chapter, it is worth noting an intriguing divergent viewpoint. Psychbizarre theory (PBT) was proposed by Rofé (2000) and construes psychiatric disorders as less *crazy* than does conventional psychiatry.[27] PBT makes a distinction between bizarre behaviors (which include neuroses and psychoses) and non-bizarre behaviors (such as simple fears, alcohol abuse criminal activity and suicidal behavior). Bizarre behaviors are viewed as coping strategies, consciously and deliberately chosen to cope with unbearable levels of stress. The function of the behaviors is to eliminate stress-related thoughts from attention and to provide some control over the sources of stress. Patients with neuroses and psychoses remain unaware of the causes of their behaviors and of their own self-involvement as a result of sophisticated self-deception processes. \

[27] In my review of Rofé's book, I commented that the theory deserves a better label (Lester, 2002).

PBT uses the concept of repression but defines it quite differently from the way in which psychoanalysis does. For PBT, repression is a conscious distraction involving specific distraction measures to block stress-related thoughts from awareness. Repression is "normal" when conventional, socially acceptable methods of distraction are used such as physical escape, reducing or disrupting sensory input such as sleeping, looking away or closing one's eyes, interference tasks such as reading, athletics or work, and cognitive manipulations such as forgetting, shifting attention, humor and prayer. Repression in PBT is the consequence, not the cause, of bizarre behavior.

PBT argues that bizarre behaviors are also accompanied by depression raising the possibility that depression is a motivational cause of bizarre behaviors. Stress generates depression, and the bizarre behaviors serve to alleviate the unbearable level of depression. There are two stages in the process of selecting symptoms: (i) psychosocial and physiological factors that generate an unbearable level of stress, and (ii) the process by which a person selects a symptom. Rofé details conventional sources of stress (including environmental and internal sources), as well as the person's coping strategies, problem-solving abilities, social support, genetic predisposition, learning experiences, and childhood trauma.

The symptom selection stage, according to PBT, resembles an economic decision-making process, involving the person's unique needs, available experiential resources, and a cost-benefit analysis. The symptom must distract but also provide control over the sources of the stress. External stressors will result in symptoms that remove or distance the person from the stressor, such as conversion disorder, phobic disorder, dissociative fugue, multiple personality, obsessive-compulsive disorder and, in primitive societies, possession disorder. Internal stressors will result in symptoms that reduce the likelihood of acting impulsively, losing control or acting out, while attributing responsibility to external sources (as in multiple personality). Obsessive-compulsive disorder can distract from sexual and hostile impulses as can conversion disorder and phobia.

The availability of the symptom depends on the person's conscious, experiential resources. Factors relevant here are found in the medical history of the person (so that medical problems may be exaggerated or increase the likelihood of a symptom, as when respiratory diseases increase the likelihood of panic disorders or agoraphobia. The person's behavioral repertoire can affect the availability of a symptom (as when dieting precedes anorexia), as can vocation and education, suggestion by others, and mass communication and social influence.

Finally, the person engages in a cost-benefit analysis. The costs include such factors as social embarrassment and rejection, the impact of one's daily routine, interference in interpersonal relationships, and possible physiological damage.

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