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SUICIDE AND HAPPINESS:  
SEVEN TESTS OF THE CONNECTION

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**ABSTRACT.** Indirectly, this paper examines the empirical connections between suicide and happiness by looking at the connection of each with seven standard demographic characteristics. They are sex, age, race, parental status, marital status, religiosity and employed status. These seven are chosen because a lot of data are available. We then examine the relationship of these same seven variables to suicide. Our findings indicate that marital status, religiosity and employment status have a (predicted) similar effect on suicide and happiness. Parenthood has an unclear relationship with suicide and happiness. Finally, sex, age and race have dissimilar effects on suicide and happiness. On the basis of this admittedly preliminary analysis, it would be impossible to conclude that happiness and suicide are closely (if inversely) related. First, there is the chance that suicides or happiness levels have been systematically misreported. Second, there may be a problem with our lumping together happiness and satisfaction. Third, there may be a problem with the seven particular independent variables we examined. Had we examined a different seven (or seventy) we might have drawn a different conclusion. In particular, we might have done better with comparative (or cognitive) variables derived from multiple discrepancies theory (MDT), than with demographic ones. In the end, the connection between happiness and suicide is far from certain. More research is needed.

INTRODUCTION

To date there have been hundreds, if not thousands, of studies of suicide and almost as many studies of happiness. Yet we have been unable to find any study that compared suicide with happiness.

This seems strange. After all, common sense suggests that people who commit suicide are desperately unhappy – so unhappy they want to end their lives. We would be surprised to hear that a person who was *happy* with life had chosen to end it. Thus, suicide seems to express the most extreme unhappiness.

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For this reason, it should be possible to use the act (or attempted act) of suicide to standardize our less exact empirical measures of happiness. Conversely, it should be possible to use well-constructed measures of happiness to predict whether a particular person is suicide-prone. But these benefits are available to us *only* if suicide and happiness really are mirror images of each other. If they are, research on either topic counts as research on both topics and we already know twice as much about both as we think we do.

What if we were to find a *lack* of connection between suicide and happiness? This would deny us the opportunity to forecast (and prevent) suicide using measures of happiness. Worse still, it would cast serious doubt on the meaning and validity of our measures of happiness. But before we can draw any conclusions on this score, we must examine empirically the connections between suicide and happiness.

Our study follows a simple strategy. We examine the relationship between happiness and seven standard demographic characteristics: sex, age, race, parental status, marital status, religiosity and employment status. These seven are chosen because researchers often examine them, so lots of data are available. As well, the variables are unambiguous. People know what they mean and how they are measured.

We then examine the relationship of these same seven variables to suicide. *If* suicide and happiness are strongly but inversely related, *then* they should correlate with these seven demographic variables to the same degree but in opposite directions. If they do not correlate as expected, suicide and happiness are not strongly related concepts. Then, we have to rethink the relationship between suicide and happiness.

#### WHAT IS HAPPINESS?

Before we start, a few words are needed about the concept "happiness." Over the years, many writers have claimed that happiness is a central goal in people's lives. For centuries philosophers and researchers have sought the sources of happiness. But even understanding "happiness" has proved difficult because happiness has many dimensions and means different things to different people.

For example, the ancient Greeks had six different words to describe different kinds of happiness, and an equal number of describe the concept of “joy.” By contrast, in our own culture we have many words to describe machines, yet only a few words for joy or happiness. (This may tell us something about where our culture puts its priorities.)

After a cross-national investigation, Veenhoven (1984) concluded there is no single or dominant meaning of “happiness” in common use. For this reason he has arbitrarily defined happiness as “the degree to which an individual judges the overall quality of his life-as-a-whole favourable” – in short, how well a person likes the life he or she is leading (Veenhoven, 1984: 22).

This definition eliminates the need to specify in advance which conditions will constitute the “good life” a person desires. It leaves us free to determine empirically the condition under which people are happy or not – that is, what makes people happy.

However we are not off the hook entirely. An added problem is the relationship between two things we are treating as identical in this paper: namely, happiness and satisfaction. “Satisfaction” is related to, but different from, “happiness” – at least, in the eyes of people who study the topic seriously. Briefly, “satisfaction” is a cognitive thing. Your mind tells you if you are satisfied or not. “Happiness” is a visceral thing. Your guts tell you if you are happy. (For detailed discussions of the measurement of happiness and satisfaction, see Grichting (1983), Kammann *et al.* (1984), and Stones and Kozma (1985).)

You *know* whether you are happy or not without deep soul-searching. When you’re happy, you feel like smiling. Your heart races, and you want to jump up and down, or shake hands with the person next to you. You feel *great!*

“Happiness” is a useful, as well as pleasant, state of being. According to reports (Glatzer and Bos, 1993), happiness increases a person’s life expectancy, improves the quality of marriage, increases the likelihood of finding and keeping a job, and raises people’s self-esteem and satisfaction with personal achievements.

“Satisfaction” is a good thing too, but knowing whether you are satisfied isn’t as easy as knowing whether you are “happy.” Often you have to think for awhile. That’s because there’s a complex relationship

between how satisfied you feel with life as a whole, and with particular parts (or “domains”) of your life.

Often, when we are satisfied with life as a whole, we feel satisfied with particular domains of life (for example, with our social activities.) At other times, when we feel dissatisfied with a particular domain of life (for example, with marriage), we come to feel dissatisfied with life as a whole. Our feelings about one domain “spill over” into our feelings about life and we may even come to feel like everything is falling apart.

Usually, the relationship between overall life satisfaction and satisfaction with particular domains is *reciprocal* – it runs both ways (an example is the relationship between life satisfaction and job satisfaction). So, when a person asks how satisfied we are with life, we are forced to make a complex judgment of many things at once (Lance *et al.*, 1989).

Studies have found varying degrees of correlation between happiness and satisfaction. Often, people who are happy with life are satisfied too. This is not always the case, and you can be satisfied without being happy (and vice versa). But the most comprehensive study, Michalos’ (1991; 1991a; 1993; 1993a) *Global Report on Student Well-Being* finds high zero-order correlations between the two variables. They vary from one country to another, and in Canada and the United States, they are  $r = 0.67$  and in the United Kingdom,  $r = 0.65$  (Michalos, 1991: p. 83).

For empirical social science, this is a strong correlation. It tells us that about 45% of all the variance in a person’s happiness is accounted for by his or her satisfaction, and vice versa. There cannot be another variable that comes anywhere close to explaining that much variance.

So we are going to claim that the two variables are, for present purposes identical. We are lumping them together – hereafter speaking only of “happiness” – in order to get on with our work. But in doing so, we are taking a big risk. What if suicide is related to happiness but *not* to satisfaction (or vice versa). If so, our results will be confounded. We will knowingly take that risk.

In putting together this paper, we have relied heavily on four main sources about happiness: *Psychology of Everyday Life* (Argyle, 1992), *Global Report on Student Well-Being* (Michalos, 1991; 1991a; 1993;

1993a) *Choices and Chances*, second edition (Tepperman, 1994) and *Conditions of Happiness* (Veenhoven, 1983).

For material on suicide, we have surveyed the published research literature. A long and up-to-date but not exhaustive bibliography is provided below. For earlier references, the reader is directed to the *Encyclopedia of Suicide* (1988).

#### FINDINGS: THE CORRELATES OF SUICIDE AND HAPPINESS

As you will see, our findings indicate that marital status, religiosity and employment status all have a (predicted) similar effect on both suicide and happiness. Parenthood has an unclear relationship with suicide and happiness. Finally, sex, age and race have unpredicted, dissimilar effects on suicide and happiness. We will begin by discussing the predicted findings and finish with the findings that were not predicted.

*Marital status.* This variable works the way we expect it to. Married people prove to be both less suicide prone, and happier, than unmarried people.

*Marriage and happiness.* Many studies have compared the happiness of people of different marital statuses. In surveys of the literature Veenhoven (1984; also 1983) concluded that people who share a household with a steady partner are happier than people we do not. Further, there are differences in happiness between people of different marital statuses. Generally, married people happier than never-married people who are, in turn, happier than widowed, separated or divorced people (for more complete reviews, see Tepperman, 1994; Chapters 5, 8; and Michalos, 1991a: pp. 1–13).

However there are national variations. When comparing the married to the never married, researchers find large happiness differences in Denmark, the Netherlands and the United States. However, this is not universal. In some nations – Britain, Ireland, Italy, France and Puerto Rico – the never-married are no less happy than married people. In

other nations – the Dominican Republic, Panama, and Yugoslavia – never married people are even happier than married people.

Even where differences are in the predicted direction, they are strongest among young (married) people. In short, being married does not guarantee happiness for all age groups in all countries.

To gain further insight, studies have also looked at the characteristics of the spouses. Some have found that the happiness of wives is related to the socioeconomic status of the husband and his employment status. Age differences between spouses are also linked to marital happiness. One American study found that married women who are younger than their husbands are slightly happier (on average) than women who are the same age or older. The happiness of married men is unrelated to their spouse's age.

Comparing married people with widowed people, we find large differences in happiness. Widowed people are unhappy in Belgium, Denmark, Luxembourg, the Netherlands, the United States, and in West Germany. Smaller differences are found in Britain, France and Puerto Rico. Yet in Finland and Ireland widowed people are *not* less happy than married people.

The important fact to keep in mind is that in no country are the widowed happier than married people. Further, marital status differences in happiness are similar for both sexes and in all age groups. Comparing married people to divorced and separated people, there is no country in which the divorced are as happy as married people. In fact in Western Europe and the United States, divorced people are very *unhappy*. Again the marital status differences are similar for men and women, young people and old.

The importance of marital status comes through in studies of the remarried as well. For example, research finds that remarried persons are considerably happier than unmarried people – in fact, just as happy as people married for the first time.

Not only is marriage beneficial, its benefits are increasing. Veenhoven (1983) find that the data on marital status and happiness show the following trends: (1) Differences in well-being between unmarried and married persons are becoming larger; (2) In the Netherlands between 1950 to 1980, the suicide rate rose far more among unmarried than

among married people; (3) Happiness differences between unmarried and married people are largest in the most modern European countries; and (4) Over the last few decades, married people have become more dependent on the relationship with their spouse.

Mastekaasa (1993) finds support for this view, noting that many studies have found a link between marital status and subject well-being. They agree that the currently married are happiest, the divorced and the widowed least happy, and the never-married in an intermediate position (Mastekaasa, 1993: 249).

It may seem that opinion is unified on the issue of marriage's beneficial effects. But some studies indicate a shift from this traditional pattern. For example, Glenn and Weaver (1988) find that among never-married men, self-reported happiness grows over the period 1972 through 1986.

Furthermore, the differences in happiness between never-married and married people have declined significantly over time. For women the decline was weaker and not significant statistically. But for both sexes the decline in happiness-differences between the married and never-married is particularly strong among people 25 to 39 years of age. These findings are supported by Lee *et al.* (1991), who use the same data and statistical methods to conclude there has been "a modest reversal" of the trend.

Other studies have investigated the claim that marriage is more beneficial to husbands than wives. D'Arcy and Siddique (1985) found the opposite to be true. Married women report significantly more happiness than married men with respect to marital and family happiness.

Yet at the same time the findings confirm that married women are significantly more vulnerable to psychological distress anxiety, depressive symptoms and physical health problems than married men. The data also reveal a widespread use of drugs and pain relievers among married women, though married men consume substantially more alcohol than their wives. Overall the results argue that marriage protects the health of men more than it does for women (D'Arcy *et al.*, 1985).

Schumm *et al.* (1985) found that husbands and wives were equally happy on average. When there was an extremely wide difference in marital happiness, it was almost always the wife who was less happy.

In the global study, Michalos (1991: pp. 102, 103) found marital status made significant contributions to the happiness and satisfaction of both male and female students. Controlled effects (i.e., beta weights) were small but in the right direction.

To summarize so far, the evidence shows a slight decline in the effect of marital status on happiness and evidence that marriage is more enjoyable and healthful for husbands than for wives. Yet the main fact remains that marriage contributes to happiness.

Our task now is to see what effect marital status has on suicide rates. If suicide is really a symptom of unhappiness, married people should be less suicide prone than single, separated, widowed or divorced people. (This is what Durkheim found in his classic work *Suicide*, a century ago.)

*Marriage and suicide.* A review of the current literature finds a correlation between marital status and the act of suicide. In fact, studies continue to show that marriage provides considerable immunity against suicide.

Cross-national studies on marital status and suicide show suicide rates are highest among the divorced, widowed and the single. In Japan the highest suicide rate is found among widowed people followed by the divorced, then single. The lowest rate is among married people (Fuse, 1980).

Stack (1980; 1989) investigated the effects of divorce on suicide in the United States and Norway. His results demonstrate that marital status influences the suicide rate. In the United States, the incidence of divorce is closely associated with the rate of suicide even when the effects of age composition, percentage of black, and rate of interstate migration and income are controlled for.

According to Stack (1980), when controlling for these other variables a 1 percent increase in the divorce rate is associated with a 0.54 percent increase in the suicide rate. Similarly in Norway, a 1 percent increase in divorce is associated with a 0.46 percent increase in suicide (Stack, 1989). Using a time series analysis in Denmark, Stack (1990) concludes that the suicide rate is even more closely associated with changes in the divorce rate than in unemployment rate. More will be said about this



later (Stack, 1990). In Denmark, a 1 percent increase in divorce is associated with a 0.32 percent increase in suicide. What's more, the divorce trends even predict the incidence of suicide among (unmarried) teenagers – presumably, an indirect impact by the divorces of their parents.

What is less clear is the extent to which different non-married statuses (never-married, separated, widowed, divorced) are divorce-prone, and why. Klebba (1970) looked at the American people and found that, for both men and women and for whites and non-whites, the suicide rate was higher among divorced than among widowed people. Kreitman (1988) looked at suicide rates among widowed and divorced people in Scotland. He concluded that divorced people have the highest raw suicide rates, but standardizing for age results in widowed people having the highest rates. Among women, widows have the highest suicide rate. Standardizing for age leads to a tie for highest rates, between the divorced and widowed.

Smith *et al.* (1988) confirmed that in the US, for men and women, whites and blacks, the divorced and the widowed have the highest suicide rate. Moreover young widows (ages 15–44 years) are especially vulnerable to suicide.

Other studies are less clearcut. For example, the suicide ratio of single/married people is not significantly associated with the divorce rate either for men or women (Lester, 1988). Jarosz (1978) completed a statistical review of suicide rates in Poland, Japan, the United States and other western countries. He concluded (likewise) that the act of suicide is not related to marital status as such, but to sudden changes in marital status through death or divorce. Durkheim, who invented the concept *anomie* to describe this very situation, would have agreed.

To summarize so far, there is debate as to which *unmarried* state is most suicide-prone and why. However there is little debate on the main point. Marriage reduces the risk of suicide, as much as it increases people's happiness.

*Employment status.* Like marital status, employment status works the way we would expect. Employed people are both happier, and less suicide prone, than unemployed people.

*Employment and happiness.* Many social scientists believe that work is essential to happiness. Though rarely the most important one, work is an important source of personal happiness. For this reason, many studies find that employment increases happiness. Unemployment, on the other hand, results in a loss of happiness and self-esteem (Veenhoven, 1984).

Summaries of the relevant literature can be found in Michalos (1993: pp. 1–13) and Tepperman (1994: chapter 4). There is little direct evidence that employment increases happiness but plenty of evidence that (1) degree of happiness at work affects degree of happiness overall and (2) on average, people are happy with their work. What is *not* clear is whether people who dislike certain features of their job – for example, close supervision – would be happier with life if they did not have a job at all. Some studies have shown that happiness with employment is tied to income (Veenhoven, 1984). But one doubts that this means a low income wipes out the contribution of employment to overall happiness.

To what extent does the relationship between happiness and employment depend on “how badly you want to work”? This question was answered with a British study done in 1975. Conducted after the closure of a steelshop, it found that happiness depended on how eager a worker was to work.

In his global study, Michalos (1991: pp. 102, 103) found employment status made significant contributions to the happiness and satisfaction of female students. The controlled effects were all in the right direction, though small. However we would not expect otherwise: employment is likely to affect students differently from everyone else.

If employment has an effect on happiness, then it is logical that retirement will affect a person’s happiness. Accordingly, a 1948 cross-national study – according to Veenhoven, the broadest of all the studies he looked at – found that retired people were less happy than working people in Australia, Britain, France, the Netherlands and West Germany. However in Italy and Norway retired people were just as happy as working people. In the United States there was no difference.

Some studies have controlled for age by focusing only on elderly people. One of these was conducted in Japan and two, in the United

States. All three concluded that retired people are less happy than people of the same age who are still working (Veenhoven, 1984) – a clear employment effect.

An American study found that happiness at retirement was greatest if the retirement had been voluntary. In fact, people who had been unhappy before retirement became happier afterwards. On the other hand, happiness diminished among people forced to retire in good health who could not find ways to keep busy (Veenhoven, 1984).

The employment status effects on happiness are less clear where women are concerned. Veenhoven claims that American housewives are less happy than women who work for pay. However other studies have found no difference, in terms of reported happiness, between working wives and housewives. So employment status may play a more important part in shaping men's happiness than in shaping women's. Perhaps that is because men rarely have as many important social roles outside work as women. Employment status affects the social and psychological identity of men to a larger degree. That is because women had social networks which provided a more balanced and manageable work life (Stefansson, 1991).

*Employment and suicide.* What about the relationship between suicide and unemployment? If our original hypothesis is correct, unemployment rates will be positively correlated with the suicide rates. Said otherwise, people out of work will run a higher suicide risk than people who have a regular job.

Yang (1992) examined the relationship between economic and social variables and the suicide rate in the United States, using census data and other federal government data for the years 1940 through 1984. He finds that, for white men, the suicide rate is positively associated with the unemployment rate: as unemployment rises, so does suicide. Along similar lines Dooley (1989) reports finding that thirty studies have confirmed there is a positive correlation between unemployment and suicide.

These findings, like those bearing on employment and happiness, are sex-specific. As we would have expected, unemployment is a good predictor of suicide for men but not for women (Trovato, 1987). To

conclude, employment status – like marital status – has a symmetrical effect on suicide and happiness.

*Religiosity.* Like marital status and employment status, religiosity works the way we expect it to. Religious people both are happier with life, and less suicide prone, than non-religious people.

Marx claimed religion was an opiate of the masses. Many other scholars have viewed religion less negatively, but have agreed that religion is a psychological aid – a source of comfort and security. Religion reassures people faced with an unknown that is ever-present. It gives a meaning to people's lives and acts as a source of social support. For these reasons, many investigators have hypothesised that a person's level of happiness is related to his or her "religiosity" or religious commitment.

*Religiosity and happiness.* A good literature review on this topic is provided by Michalos (1993a: pp. 1–3). As well, Stock *et al.* (1985) note that researchers have found a positive relationship between religiosity and happiness. Its effect is smaller than two variables we have discussed so far – marriage and work – but larger than age, sex and race (which we will discuss later.)

Veenhoven (1984) also looked at the connection between religiosity and happiness and, in particular, at the strength with which people hold their religious convictions. He measured this in three ways: whether the person was a member of a church, what the perceived importance of religion was for the person and the amount of religious participation.

Four investigations – three of these in the Netherlands and one in the United States – were conducted to compare the happiness of church-going people to that of non-church going people. The American study provided the clearest result. Church members were happier than non-members.

In terms of religious participation. Veenhoven found eight studies relating happiness to frequency of church attendance. Six were American, one Dutch, and one Filipino. At first, the results are contradictory. Five studies find weak positive relationships and three find no correlation whatever.

The American studies – based on data from 1946, 1957 and 1972/73 – show steadily declining correlations between overall happiness and church attendance. In fact the 1972/73 survey found the relationship had completely disappeared among young people. Over time, correlations between happiness and both church membership and church attendance decreased, especially among the young, the educated and the inhabitants of large cities. Veenhoven speculates that the same occurred in other western nations, though we have no data to back up this speculation.

However other research confirms the importance of religiosity, especially among older people. Religiosity – strong religious sentiment and involvement – makes people feel better about life (Poloma and Pendleton, 1990; Chamberlain and Zika, 1988; Gee and Veevers, 1990). Cox and Hammonds (1988) show that people who attend church frequently are happier and better adjusted than people who do not. They suggest that the church gives people a place for social integration and activity, and provides them – especially the elderly – with a sense of community and well-being.

Ellison *et al.* (1989) dispute that explanation, noting that even religious people who do *not* attend church are happier than average. Perhaps, as Koenig *et al.* (1989) suggest, religion gives people (especially, older people) a better way of coping with life's problems – for example, through prayer. Likelier still, religion gives people a sense of purpose in life. Molcar and Stuempfig (1988) find that people (in this case, university students) with a strong belief in a personal God feel they have more purpose in life, and get more excitement out of day-to-day living, than other people do.

So, religious people are happier because religion invests their life with meaning. They feel they are doing what God wants them to do, and this gives them a sense of mission.

In his global study of student well-being, Michalos reports (1991: pp. 110–112) that students' satisfaction with their religion (i.e., spiritual fulfillment) strongly predicted happiness in Brazil, Greece, India, Tanzania, Turkey and Puerto Rico. It strongly predicted life satisfaction in Brazil, Israel, Puerto Rico and Tanzania. (In general, he reports that it had a stronger effect on "happiness" than on "satisfaction.") In these

cases, it was a much stronger predictor than many other variables in the model.

This would lead us to conclude that we can expect to find some important national, cultural or ethnic variations in the effect of this variable on both happiness *and* suicide.

*Religiosity and suicide.* When we look at the connection between religiosity and suicide, there seems to be a link. Pescosolido *et al.* (1989), for example, found that Catholics and Evangelical Protestants have lower suicide rates. Conventional Protestants have higher rates (just as Durkheim had found in France a century earlier). As well, Pescosolido *et al.* found that Jews have a particularly low suicide rate.

On the other hand, Simpson *et al.* (1989) have questioned Durkheim's finding that Catholics are less likely to commit suicide than Protestants. Using multivariate techniques of analysis on cross-national samples, Simpson *et al.* conclude that once socioeconomic differences are controlled for, Protestants and Catholics have similar suicide rates. To fully test Durkheim's theory, it is necessary to compare Christianity with Islam. Doing so, they find that Islam provides its adherents with superior protection against suicide, as shown by lower suicide rates in Islamic countries. Based on this evidence, the authors conclude that they have confirmed Durkheim's finding that religion is an important cause (or preventor) of suicide.

Study after study has found that, regardless of denomination, church membership has a protective effect against suicide (see for example Shaw, 1986; Kraybill *et al.*, 1986).

To understand the connection between religion and suicide Stack (1983) conducted a cross-national investigation of 25 countries and found that religious commitment is negatively related to the total suicide rate. However this relationship holds only for women, the group traditionally most committed to religion. Further support for the relationship between suicide rates and religious attendance was found in the suicide rates of young people. This group, with the largest decline in church attendance between the years 1954 to 1978, also had the most rapidly growing suicide rate (Stack, 1983).

These studies lead to the conclusion that religiosity, or religious integration, like marriage and employment, plays an important role in keeping people from committing suicide. The relationship between happiness and religiosity is slightly less definitive and more investigation is needed. Overall, however, both bodies of evidence – on happiness and on suicide – point in the same direction.

*Parenthood.* Unlike marital status, employment status and religiosity, parenthood (or parental status) does not predict suicide and happiness in the way we would have expected.

*Parenthood and happiness.* Many people believe that children can be, and are, an important source of happiness. In fact, a common belief holds that, for women in particular, happiness depends on having children in the house. (This view supports the idea that women possess an innate need to mother children.) Childless people, on the other hand, are regarded with pity in many societies.

Most studies of this topic investigate the relationship between happiness and the presence or absence of children in a marriage. They typically pay little attention to the numbers, ages or “kinds” of children. Further, most of the research in this area is from western nations and, particularly, from the United States.

Yet according to Veenhoven (1984), married people with children are no happier (on average) than married people without children. In fact they are less happy. Studies in the Netherlands, two studies conducted in the United States, and studies in the Dominican Republic, Panama and the former Yugoslavia confirm this finding.

In fact, in one study, married women with children were significantly *less* happy than women without children. Among married men, parenthood has a more positive effect – at least in the Dominican Republic, Panama and Yugoslavia.

The presence of children may actually have detrimental effects on the parents, by decreasing equality and intimacy between the spouses. Veenhoven points out that, in this context several studies have found that the arrival of children has a negative effect on marital happiness. However, the decrease in marital happiness is not permanent. When

the children leave the parental home twenty years later, the marriage improves.

At all ages and marriage durations, wives *without* children are happier with their marriages than wives *with* children (Lupri and Frideres, 1981: 300). Husbands without children are also happier than same-aged fathers (except between the ages of 45 and 65). Couples who choose to be childless are happier with their lives and marriages than couples with children (see, for example, Polonko *et al.*, 1982; Glenn and McLanahan, 1982).

Infertile women, who are childless against their will, are actually *less* happy with their lives than women with children (DeJong *et al.*, 1984). Infertility decreases the frequency of intercourse for married couples and decreases pleasure and comfort with sex. It even reduces women's self-confidence (Sabatelli *et al.*, 1988).

So, what is at issue here is not only parenthood, it is the ability to choose parenthood. (This is, effectively, the conclusion Michalos reaches in his own survey of the literature; see Michalos, 1991a: pp. 6, 7.) People who lack the choice are often less happy than average. But people who have the choice, and choose against parenthood, are happier with their lives and marriages.

Adults with children at home report that they are less happy about their lives than other groups. They also worry more and experience high levels of anxiety and depression. The overall difference between parents and non-parents is small, but it has increased in the past two decades (McLanahan and Adams, 1987). Of all parents, stepparents and remarried parents report the lowest levels of happiness with parenthood (Ishii-Kuntz and Ihinger-Tallman, 1991).

Some research points in the opposite direction. In fact, it argues that happiness increases with the number of children a parent has produced (Greeley, 1991). For example, fathers of three or more children are happier with life and marriage than fathers with only one or two children (Quality of Life survey, 1981). But further analyses show we have to interpret the relationship between happiness and number of children in another way. It is not that having children makes people happy, but rather that happy people have more children.



The Canadian Quality of Life survey data (1981) show that couples who are happy with their marriage are likelier to bear children and also more likely to feel happy about life. Couples unhappy with their marriage who bear many children end up no happier about their lives than unhappy couples who bear fewer children. And happily married couples who have children are only slightly happier about life than happily married couples with fewer children.

Parenting does not make people happier about marriage (or life). Nor does the presence of children compensate for the absence of a mate. This is borne out by research on single mothers which shows them to be less happy than mothers with live-in partners (Fine *et al.*, 1986; Ball, 1984; for contrary findings in a study of black Americans, see Kiecolt and Acock, 1990).

Single mothers are less involved in the community, have less enjoyable personal relationships, and report higher levels of loneliness, than married mothers. Overall, they have lower levels of happiness with life (Kirkham *et al.*, 1986). Compared with happily and (even) unhappily married mothers, single mothers report more child behavior problems and feel more stress. When interacting with their children, they make more critical statements and ask more critical questions. Observation shows *their* children exhibit more deviant and non-compliant behavior than other children (Webster-Stratton, 1989).

On balance, people with the hardest parenting jobs – mothers (and especially single mothers) ages 31–45 – report enjoying parenthood least. And people who report enjoying parenthood the most have the least amount of recent experience with it. They are either under 30 or over 65 years of age (Quality of Life survey, 1981). For similar reasons, younger women are likelier than older women to advise against bearing many children (*ibid.*). Older women, like fathers, are far removed from the burdens of raising children (see also Campbell, 1980, p. 191).

Moreover, people are happiest with marriage before parenthood begins and after the children have left home. Both husbands and wives are likelier to be happy about their marriage if their children are living away from home (Rhyne, 1984, p. 19). This also suggests that children reduce marital happiness in the average family. In fact, four parents in

ten would not like to see their “living-away” children more often than they already do (Quality of Life survey, 1981).

On balance, the evidence argues that parenthood can have as many negative as positive effects on happiness.

*Parenthood and suicide.* The relationship between parenthood and suicide is also unclear. Veever (1973) believes that a large part of the variation in suicide rates attributed to differences in marital status is more accurately attributed to differences in parental status. Thus, if researchers were to compare people with and without children, holding marital status constant, a different picture might emerge.

Evidence shows that parenthood can play an important part in reducing a person’s suicide-proneness. For this part, Durkheim thought similarly. Adults with children – especially, women with children – were nearly as protected from the risk of suicide as adults with spouses.

To conclude then, the data on happiness and suicide are going in different directions where parenthood is concerned, but the data are too spotty to let us draw a firm condition.

*Sex.* The same cannot be said of the last three variables we shall consider: namely, sex, age and race. Sex, like age and race, do *not* have symmetrical effects on suicide and happiness.

*Sex and happiness.* In large part, the problem is that there is no clear connection between sex and happiness. For example, Veenhoven found 70 studies conducted in 31 nations that show no significant differences in the happiness of men and women. In Nigeria, Puerto Rico, and Western Germany men are slightly happier, while in Brazil, France, Finland and Norway women are slightly happier. In the United States sex-differences appear only within specific age-group. For example, young men are less happy than young women and old men are happier than old women.

Another literature review, by Michalos, yields the same inconclusive result. Some researchers (for example, Haring *et al.*, 1984) found the literature revealing slightly higher average levels of happiness among men. Other researchers (for example, Inglehart and Rabier, 1986) find

the opposite. Michalos himself finds no difference among American undergraduates. And in his global study of students, there is variation from country to country in which sex is (slightly) happier (Michalos, 1991: pp. 91–93).

*Sex and suicide.* These findings of no consistent difference in happiness between men and women do *not* square with the data on suicide. In suicide research, study after study concludes that women are more prone to attempting suicide than men are. In fact women's attempts outnumber men's attempts by a ratio of 8 to 1. Men, on the other hand, commit suicide at a rate two to three times as high as women (Davis, 1981; Evans *et al.*, 1988). So even if men are more effective at suicide than women, there is no evidence that their desire for suicide is anywhere nearly as great.

However the suicide rate for women has been steadily increasing over the last 150 years (Kushner, 1985; Ornstein, 1983), implying a move to sex equality in suicides. A study by Burvill (1972) has shown that the ratio of male/female suicide rates is actually decreasing. After studying data from several western industrial nations he concludes that the rise in women's suicides and the fall in the men's suicides in the older age groups is producing a convergence of the male/female ratio (Burvill, 1972).

There is much support for this position. For example, a study of the suicide rates in Portugal by Castro *et al.* (1988) found an increase in the women's suicide rate which accounted for the reduction in the male/female ratios of suicide. Bourque *et al.* (1983) came to a similar conclusion. A decline in the male/female ratio corresponded to a gradual increase in women's suicide rates in Sacramento County, California since 1925.

Steffensmeir (1984) disagrees slightly. After analyzing white suicide rates in the United States between 1960 to 1978, he concluded that the narrowing of the sex difference in suicide rates was due to falling suicide rates among older (40+) men, not an increasing women's suicide rate. Other studies draw even more different conclusions. For example, the gap between men's and women's suicide rates has actually increased (Evans *et al.*, 1988).

In South America, South and East Asia we find the norm completely reversed. There, men commit suicide more often than women, though women have a higher completion rate than in the West (Fuse, 1980; Lester, 1982; Lester, 1992).

Admittedly, the research on suicide is confusing. There is evidence of variation from one country to another, and also from one time period to another. The evidence that shows male and female suicide rates are converging is symmetrical with evidence that men and women have similar levels of happiness. However this suicide convergence is far from completed and, in any case, it is not universal.

*Age.* Like sex, age does not correlate with suicide and happiness in symmetrical ways.

*Age and happiness.* In 77 studies performed in 27 nations, happiness is largely unrelated to age (Veenhoven, 1984). In only a few cases does happiness vary (slightly) by age. For example in Italy, Norway, Nigeria and the Philippines the elderly were slightly more happy, on average than anyone else. On the other hand, young people were happier than anyone else in Belgium, Denmark and Western Germany.

Veenhoven says he found no evidence for the curvilinear relationship between age and happiness that many Americans believe exists. Specifically, he found no evidence that middle aged people are happier than the young or the old. In fact only three of the 27 studies he examined found such a relationship. Several others found that the middle aged people were actually *less* happy than average.

However other investigators have results that contradict these, showing that age and happiness *are* related. For example, Bobys *et al.* (1981) conclude that there is a weak positive association between happiness and old age. Tepperman (1989) reports the same, using Canadian data. In his global study, Michalos (1991: pp. 102, 103) finds a weak *negative* association between age and happiness. This is not completely surprising: older students are more likely than younger ones to suffer from competing (non-school) demands. At best, we cannot conclude

that happiness is age-specific (on this, see also Stock *et al.*, 1986; and Stock *et al.*, 1983, for estimates of variance contributed).

*Age and suicide.* However this is not true of suicide. Suicide is age-specific. For example, studies reveal that suicide is the third leading cause of death among American adolescents, both male and female, behind accidents and homicides. Almost 20 percent of all suicides in the United States are committed by people ages 15–24 (Cosand *et al.*, 1982). This even underestimates the total number, since many suicides are reported as “accidents” and the actual numbers could be twice as high.

Lester (1988) found that in the 1980's there was a rising suicide rate among people ages 15–24 in many nations of the world. However this is by no means a universal phenomenon. In fact, of the countries studied 23 showed a rise in the suicide rate (with Norway experiencing the largest percentage increase) and only 6 showed a decrease in the rate.

Maris (1985), who investigated the increasing adolescent suicide problem, found that between 1968 to 1976 suicide rates for white girls ages 10–14 increased 100 percent, and for black girls 10–14 133 percent. For men the largest increase was 79 percent for whites, ages 20–24. In total the suicide rate for 15–24 year olds between 1960–1989 rose 237 percent (Maris, 1985). Garrison's 1989 study found that suicidal behaviour among young people increases progressively with age. Hence the frequency of suicide among elementary students is low. As students age their risks of suicide grow rapidly.

Unlike the general suicide rate, youth suicide rates are not related to quality of life (Lester, 1988). Youth suicides have been attributed to feelings of helplessness, alienation, loneliness, social neglect, abuse (both emotional and physical) and loss of significant others (Peck, 1982, 1983; Bolger *et al.*, 1987).

There is also a close relationship between alcohol and drug use and suicidal behaviour, and among adolescents the problem is painfully acute. More often than not, young people see the use of substances

as an escape from the stresses of life. Almost half of the adolescents who commit suicide are drunk or high. That figure rises to 75 percent when you factor in those who attempt suicide but fail while under the influence (Evans, 1988).

Hence, as Downey (1990) points out, drug abuse itself can be seen as a form of slow suicide. Along similar lines, Klagsbrun writes:

drug abuse and suicide are closely linked. From studies of young drug abusers, we know that these people suffer almost unbearable despondency. They hate themselves and feel useless and worthless, much the same way suicide attempters do. Rather than choosing outright suicide, many drug users chip away at their lives, dying slowly, little by little (quoted in Evans *et al.*, 1988).

The relationship between age and suicide varies with race, which we will discuss in more detail shortly. Seiden (1981) found that, among whites, the suicide rate increases with age. Among blacks, the suicide rate peaks early in life and then declines with age. Within the black community the rise in suicide rates among young men is of great concern. Unlike white suicide rates which increase with age black suicide is largely a youth phenomenon. Among American blacks ages 20–34, suicide is the third leading cause of death. Furthermore, Davis (1979) found that incidence of suicide is higher among younger blacks than older blacks.

From 1965–1975 the suicide rate among black youths increased to a rate nearly as high as that of whites. Between 1970–1975, the rate of suicides among black men ages 25–29 was even higher than that among white men the same age (Davis, 1979). Many researchers have hypothesised that the rise in black suicides is due to such factors as racism, the erosion of the traditional black social support system, and a weakening of the nuclear family.

Lately, attention has been focused on the increasing suicide rate of adolescents, but it is important to remember that old people are even likelier to commit suicide in the United States. The literature indicates that suicides among the elderly, especially among white men, is extremely common. Suicide in this group is a result of physical and psychological problems, social isolation, involuntary retirement and death of a spouse (Templer *et al.*, 1986; McIntosh, 1991). Using data from the UN and the World Bank in a cross-national study of aging

and suicide, Stack (1982) concluded that the proportion of elderly is strongly related to the suicide rate. A low degree of social integration, loss of jobs and confusion caused by a changing economy and increased urbanization all contribute to higher suicide rates among older people.

However, as we have already noted, among blacks and native Americans the suicide rate is extremely low for the elderly (McIntosh, 1981). Among non-whites in the United States, rates are highest among adolescents and young adults (under age 35).

To summarize, there is disagreement about the relationship between age and happiness, but an indication that people become happier as they age. There is less disagreement about the relationship between age and suicide, and the data indicate that – at least among whites – people become likelier to commit suicide as they get older. So among whites, the pattern is exactly opposite to what we have predicted.

*Race.* As we have already noted, race interacts with other variables to influence both happiness and suicide. What's more, it has an influence in its own right. Like sex and age, race fails to correlate with suicide and happiness in symmetrical ways.

*Race and happiness.* Veenhoven found that studies on race were primarily done in post-revolutionary Cuba and the United States. In fact, seventeen such studies were done in the United States. The major conclusion in both Cuba and US is that "black" people were found to be less happy than "white" people. In fact, an examination of changes over time reveals that, in the United States, the difference in happiness between blacks and whites has grown between 1946 and 1966. In 1946 blacks and whites were almost equally happy. In categories such as semi-skilled and unskilled workers and among the elderly, blacks were even happier than whites.

The picture began to change between 1956 and 1966. During this time, the happiness of whites actually increased, while blacks became less happy. The changes were especially pronounced among blacks in the higher social strata. Blacks with good education, high income and a good job proved to be less happy than whites with similar characteristics. In the lower social strata, the difference in happiness between blacks

and whites did not increase as much. As well, the decrease in happiness was more evident among black youth than among elderly blacks.

Veenhoven offers possible reasons for this change in happiness. Perhaps the civil rights movement, coupled with their increase in education level, led many blacks to adopt white standards and start evaluating themselves according to white standards of economic success. He also suggests that blacks are rejected by the wider society and their awareness of this rejection hits successful blacks harder because they are less rooted to the black subculture. This social rejection can reduce their happiness.

In short, blacks have been less happy than whites. For more on this, the reader is referred to Stock *et al.* (1985).

*Race and suicide.* However the suicide rates tell a different story. In countless studies researchers have found that whites have a higher suicide rate than blacks do. Ellis *et al.* (1991), using the Reasons for Living Inventory, discover that blacks find more reasons for living than whites do. They also have a more developed extended family system. This fosters a sense of personal worth that acts as a buffer against potential suicide (Ellis *et al.*, 1991).

By way of a digression, the same factors protect immigrants from suicide. As we have seen, there seems to be a link between suicide rates and social integration. A study that looked at data compiled by Statistics Canada for the census years 1971 and 1981 found that the suicide rates of immigrant groups varies inversely with each group's degree of social integration. The social bonds a group establishes protects its members against suicide (Trovato, 1986a).

Among native peoples, suicide rates are high. In fact on some reserves, the suicide rate is as much as ten times that of the national average (Evans *et al.*, 1988). Research shows that the rates are particularly high among young people. Between 1976 to 1978 the suicide rate for Native Americans ages 15 to 24 was more than three times the national rate for that age group (Evans *et al.*, 1988), affecting men to a larger degree than women.

Research in this area has sought reasons for the high rates of suicide among native people. Tower (1989) argues that youthful drug and alco-



hol abuse, high unemployment, negative attitudes towards American Indians, and a loss of tribal ceremonies and traditions all are related to suicide in this group. Also Berlin (1987) concludes that high rates of adult alcoholism and the breakdown of the traditional family structure has harmed young people. Others, such as Hochkirchen *et al.* (1985) conclude that suicide and parasuicide rates among Amerindians of the Pacific Northwest represent a cry for help, an escape from the intolerance they face from non-natives and the terrible domestic conditions they face.

To summarize, non-whites show lower levels of happiness than whites and, in keeping with this, native peoples have a higher rate of suicide. But black rates of suicide are *lower* than white rates, not what we would have expected.

#### CONCLUSION

To repeat, the purpose of this exercise has been to link research on happiness with research on suicide. It was hoped that such a linkage would enrich both traditions, help to predict potential suicide, and help to validate the instruments used to measure happiness.

Our results have been mixed. Certainly the research on both happiness and suicide points in the same direction where three of our variables are concerned. The data show that (1) marriage, (2) religion and (3) employment are all good for people. They make people happier and also make them less likely to commit suicide. For its part, parenthood has a mixed and uncertain effect on people's well-being, whether we measure happiness or suicide as the outcome variable.

Finally, sex, age and race influence happiness and suicide differently. Women, who are reportedly no less happy, are more suicide prone than men. Old white people, who (according to some reports) are happier than average, are more suicide-prone than younger white people. And black people, who are reportedly less happy than white people, are less suicide prone than white people.

On the basis of this admittedly preliminary analysis, it would be impossible to conclude that happiness and suicide are closely (if

inversely) related. There are too many question marks. In concluding this paper, we should consider a few of these.

First, there is the possibility that either suicides or happiness levels are being systematically misreported. We have no way of assessing the size of this problem, if it exists at all. However there is no obvious reason why these variables should be misreported in different directions. Put another way, if there is a bias, one might expect the bias to affect measurements of both suicide *and* happiness.

Second, the problem may lie with our lumping together of “happiness” and “satisfaction.” Had we looked only at research on happiness (and not satisfaction) or satisfaction (and not happiness), we might have found a closer symmetry with the suicide findings. This strategy, however, would have cost us many “cases” (that is, completed research studies which serve as the data in this survey).

As well, one might argue that – had the relationships been strong and robust – they would have withstood our conflation of happiness with satisfaction. Perhaps this merely proves that the relationships between happiness and suicide (on the one hand) and marital status, employment status and religiosity (on the other hand) are the strongest ones. Sex, race and age may be less important or worthy indicators.

Third, to expand on this point, our problem may lie with the particular seven independent variables we examined. Had we examined a different seven (or seventy) variables we might have come to a different conclusion about suicide and happiness. What’s more, it’s interesting to note that the variables that “worked” – namely, marital status, religiosity and employment status – are all social characteristics and what sociologists call “achieved” statuses. The variables that did not work – namely, sex, age and race – are all demographic characteristics and what sociologists call “ascribed” statuses.

Perhaps people in a given achieved status are more like other people in the same achieved status than people in a given ascribed status are like people in the same ascribed status. Said another way, married people (or employed people, or religious people) are more like one another than white people (or men, or old people) are like one another. If so, we are bound to find closer agreement between suicide and hap-

piness if we test them on achieved statuses than if we test on ascribed statuses.

If this speculation is valid, the next stage of research would be to select other achieved statuses – for example, educational attainment, political involvement, memberships in voluntary association, friendship and leisure time activities, time budget and money-spending patterns – as bases for further comparing suicide and happiness.

A different approach would be to follow Michalos. His approach assumes that demographic variables are, by their nature, less relevant to explaining people's behaviour than cognitive variables. If we had only studied people's perception of, or satisfaction with, various aspects of their lives, we might have found stronger similarities between happiness and suicide.

However this path is closed to us. In his classic work on suicide, Durkheim studied demographic variables and "social facts" to distance himself from psychology and psychological theorizing. But he also did so in the recognition that we can recover little evidence about the perceptions and motives of people who have killed themselves. Studying the perceptions and motives of people who have attempted but failed suicide may not be as good. (We know that a great many who fail in their attempts were hoping to fail. So we cannot assume they are the same "kind of people," nor have the same thoughts, as successful suicides.)

Ideally, one would follow up Michalos' mammoth work on students to find out which ones commit suicide, then link the earlier data on satisfaction to the observed outcome. This idea, though seemingly ghoulish, might tell us much more about the real causes of suicide than another two dozen studies of "social facts." One regrets it will probably never be done.

In the end, our goal has been to put forward ideas and invite comment. We are far from knowing the answer to the question we have posed but we firmly believe the answer is worth knowing. So far, what we can say for certain is that marriage, employment and religion are basic conditions of happiness. As such, they are also protections against suicide.

## REFERENCES

- Argyle, M.: 1992, *The Social Psychology of Everyday Life* (Routledge, London).
- Ball, R. E.: 1983, 'Marital status, household structure, and life satisfaction of black women', *Social Problems* 30(4), pp. 400-409.
- Ball, R. E.: 1984, 'Parental role satisfaction of black mothers in the United States', *International Journal of Sociology of the Family* 14(1), pp. 33-46.
- Ball, R. E. and L. Robbins: 1986, 'Marital status and life satisfaction among black Americans', *Journal of Marriage and the Family* 48(2), pp. 389-394.
- Barry, B.: 1989, 'Suicide: the ultimate escape', *Death Studies* 13(2), pp. 185-190.
- Berlin, I. N.: 1987, 'Suicide among American Indian adolescents: An overview', *Suicide and Life Threatening Behavior* 17(30), pp. 218-132.
- Blazer, D. G., J. R. Bachar and K. G. Manton: 1986, 'Suicide in late life: Review and commentary', *Journal of the American Geriatrics Society* 34(7), pp. 519-525.
- Bobys, R. S., D. Witt, G. D. Lowe and C. W. Peek: 1981, 'Another methodological confounder: Comment on Witt, Lowe, Peek and Curry', *Social Forces* 60(1), pp. 227-229.
- Bolger, N., G. Downey, E. Walker and P. Steininger: 1989, 'The onset of suicidal ideation in childhood and adolescence', *Journal of Youth and Adolescence* 18(2), pp. 175-190.
- Bourque, L. B., J. F. Kraus and B. J. Cosand: 1983, 'Attributes of suicide in females', *Suicide and Life Threatening Behavior* 13(2), pp. 123-138.
- Burvill, P. M.: 1972, 'Recent decrease ratio of male/female suicide rates. Analysis of rates in selected countries, specific for age and sex', *International Journal of Social Psychiatry* 18(3), pp. 137-139.
- Bush, J. A.: 1976, 'Suicide and blacks: A conceptual framework', *Suicide and Life Threatening Behavior* 6(4), pp. 216-222.
- Campbell, A.: 1980, *The Sense of Well-Being in America: Recent Patterns and Trends* (McGraw-Hill, New York).
- Castro, E., F. Pimenta and I. Martins: 1988, 'Female independence in Portugal: Effects on suicide rates', *Acta Psychiatrica Scandinavica* 78(2), pp. 147-155.
- Chamberlain, K. and S. Zika: 1988, 'Religiosity, life meaning and well-being: Some relationships in a sample of women', *Journal for the Scientific Study of Religion* 27(3), pp. 411-420.
- Conklin, G. H. and M. E. Simpson: 1987, 'The family, socio-economic development and suicide: A 52 nation comparative study', *Journal of Comparative Family Studies* 18(1), pp. 99-112.
- Conwell, Y., M. Rotenberg and E. D. Caine: 1990, 'Completed suicide at age 50 and over', *Journal of the American Geriatrics Society* 38(6), pp. 640-644.

- Cosand, B. J., L. B. Bourque and J. F. Kraus: 1982, 'Suicide among adolescents in Sacramento County, California 1950-1979', *Adolescence* 17(68), pp. 917-930.
- Cox, H. and A. Hammonds: 1988, 'Religiosity, aging and life satisfaction', *Journal of Religion and Aging* 5(1-2), pp. 1-21.
- D'Arcy, C. and C. M. Siddique: 1985, 'Marital status and psychological well-being: A cross-national comparative analysis', *International Journal of Comparative Sociology* 26(3-4), pp. 149-166.
- Davis, R. A.: 1981, 'Female labour force participation, status integration and suicide, 1950-1969', *Suicide and Life Threatening Behavior* 11(2), pp. 111-123.
- Davis, R.: 1982, 'Black suicide and social support systems: An overview and some implications for mental health practitioners', *Phylon* 43(4), pp. 307-314.
- Davis, R.: 1980, 'Suicide among young blacks: Trends and perspectives', *Phylon* 41(3), pp. 223-229.
- De Jong, G. F., G. T. Cornwell, S. L., Hanson and C. S. Stokes: 1984, 'Childless and one child, but not by choice: A note on some long-term consequences for life satisfactions of rural-reared married women', *Rural Sociology* 49(3), pp. 441-451.
- Dooley, D., R. Catalano, K. Rook and S. Serxner: 1989, 'Economic stress and suicide: Multilevel analysis Part 1: Aggregate time series analysis of economic stress and suicide', *Suicide and Life Threatening Behavior* 19(4), pp. 321-336.
- Ellis, J. B. and L. M. Range: 1991, 'Differences between blacks and whites, women and men in reasons for living', *Journal of Black Studies* 21(3), pp. 341-347.
- Ellison, C. G., D. A. Gay and T. A. Glass: 1989, 'Does religious commitment contribute to individual life satisfaction?' *Social Forces* 68(1), pp. 100-123.
- Evans, G. and N. L. Farberow: 1988, *The Encyclopedia of Suicide (Facts on File, New York)*.
- Fine, M. A., D. W. Donnelly and P. Voydanoff: 1986, 'Adjustment and satisfaction of parents: A comparison of intact, single-parent, and stepparent families', *Journal of Family Issues* 7(4), pp. 391-404.
- Fuse, T.: 1980, 'To be or not to be', *Stress* 1(3), pp. 18-25.
- Garrison, C. Z.: 1989, 'The study of suicidal behavior in the schools', *Suicide and Life Threatening Behavior* 19(1), pp. 120-130.
- Gee, E. M. and J. E. Veevers: 1990, 'Religious involvement and life satisfaction in Canada', *Sociological Analysis* 51(4), pp. 387-394.
- Gibbs, J. T. and A. M. Hines: 1989, 'Factors related to sex differences in suicidal behavior among black youths: Implications for intervention and research', *Journal of Adolescent Research* 4(2), pp. 152-172.
- Gibbs, J. T.: 1988, 'Conceptual, methodological and sociocultural issues in black youth suicide: Implications for assessment and early intervention', *Suicide and Life Threatening Behavior* 18(1), pp. 73-89.
- Gilliland, D.: 1990, 'Research note: Attempted suicide among adolescents', *British Journal of Social Work* 20(4), pp. 365-372.

- Glatzer, W. and M. Bos: 1992, 'Review', R. Veenhoven (ed.) *How Harmful is Happiness?* and R. Veenhoven (ed.) *Did the Crisis Really Hurt?*, in *Social Indicators Research* 27(4), pp. 375–379.
- Glenn, N. D. and C. N. Weaver: 1988, 'The changing relationship of marital status to reported happiness', *Journal of Marriage and the Family* 50(2), pp. 317–324.
- Glenn, N. D. and S. S. McLahanan: 1982, 'Children and marital happiness: A further specification of the relationship', *Journal of Marriage and the Family* 44(1), pp. 63–72.
- Greeley, A. M.: 1991: *Faithful Attraction* (Tom Doherty Associates, Inc., New York).
- Grichting, W. L.: 1983, 'Domain, scope and degree of happiness', *British Journal of Social Psychology* 22(3), pp. 247–260.
- Haring, M. J., W. A. Stock and M. A. Okun: 1984, 'A research synthesis of gender and social class as correlates of subjective well-being', *Human Relations* 37, pp. 645–657.
- Hochkirchen, B. and W. Jilek: 1985, 'Psychosocial dimensions of suicide and parasuicide in Amerindians of the Pacific Northwest', *Journal of Operational Psychiatry* 16(2), pp. 24–28.
- Holden, C.: 1986, 'Youth suicide: New research focuses on a growing social problem', *Science* 233(4766), pp. 839–841.
- Inglehart, R. and J.-R. Rabier: 1986, 'Aspirations adapt to situations – but why are the Belgians so much happier than the French? A cross-cultural analysis of the subjective quality of life', F. M. Andrews (ed.) *Research on the Quality of Life* (Institute for Social Research, University of Michigan, Ann Arbor), pp. 1–56.
- Ishii-Kuntz, M. and M. Ihinger-Tallman: 1991, 'The subjective well-being of parents', *Journal of Family Issues* 12(1), pp. 58–68.
- Jerosz, M.: 1978, 'Suicide in Poland', *Polish Sociological Bulletin* 2(42), pp. 87–100.
- Jedlicka, D., Y. Shin and E. S. Lee: 1977, 'Suicide among blacks', *Phylon* 38(4), pp. 448–455.
- Kammann, R., M. Farry and P. Herbison: 1984, 'The analysis and measurement of happiness as a sense of well-being', *Social Indicators Research* 15(2), pp. 91–115.
- Kandel, D. B., V. H. Raveis, M. Davies: 1991, 'Suicidal ideation in adolescence: Depression, substance use and other risk factors', *Journal of Youth and Adolescence* 20(2), pp. 289–309.
- Keicolt, K. J. and A. C. Acock: 1990, 'Childhood family structure and adult psychological well-being of black Americans', *Sociological Spectrum* 10(2), pp. 169–186.
- Kirkham, M. A., S. P. Schinke, R. F. Schilling, Jr., N. J. Meltzer and K. L. Norelius: 1986, 'Cognitive-behavioral skills, social supports, and child abuse potential among mothers of handicapped children', *Journal of Family Violence* 1(3), pp. 235–245.

- Klebba, A. J.: 1970, 'Mortality from selected causes by marital status', *Vital and Health Statistics Series 20*(8).
- Koenig, H. G., I. C. Siegler and L. K. George: 1989, 'Religious and non-religious coping: Impact on adaptation in later life', *Journal of Religion and Aging* 5(4), pp. 73-94.
- Kotila, L. and J. Lonnqvist: 1988, 'Adolescent suicide attempts: Sex differences predicting suicide', *Acta Psychiatrica Scandinavica* 77(3), pp. 264-270.
- Kotila, L.: 1989, 'Age-specific characteristics of attempted suicide in adolescents', *Acta Psychiatrica Scandinavica* 79(5), pp. 436-443.
- Kraybill, D. B., J. A. Hostetler and D. G. Shaw: 1986, 'Suicide patterns in a religious subculture: The Old Order Amish', *International Journal of Moral and Social Studies* 1(3), pp. 249-263.
- Kreitman, N.: 1988, 'Suicide, age and marital status', *Psychological Medicine* 18, pp. 121-128.
- Kushner, H. I.: 1985, 'Women and suicide in historical perspective', *Signs* 10(3), pp. 537-552.
- Lance, C. E., G. J. Lautenschlager, C. E. Sloan and P. E. Varca: 1989, 'A comparison between bottom-up, top-down, and bidirectional models of relationships between global and life facet satisfaction', *Journal of Personality* 57(3), pp. 601-624.
- Lee, G. R., K. Seccombe and C. L. Shehan: 1991, 'Marital status and personal happiness: An analysis of trend data', *Journal of Marriage and the Family* 53, pp. 839-844.
- Lester, D. and F. Moksony: 1989, 'Ecological correlates of suicide in the United States and Hungary', *Acta Psychiatrica Scandinavica* 79(5), pp. 498-499.
- Lester, D.: 1988, 'Youth suicide: A cross-cultural perspective', *Adolescence* 23(92), pp. 955-958.
- Lupri, E. and J. Frideres: 1981, 'The quality of marriage and the passage of time: Marital satisfaction over the family life cycle', *Canadian Journal of Sociology* 6(3), pp. 283-305.
- Maris, R.: 1985, 'The adolescent suicide problem', *Suicide and Life Threatening Behavior* 15(2), pp. 91-109.
- Mastekaasa, A.: 1993, 'Marital status and subjective well-being: A changing relationship', *Social Indicators Research* 29, pp. 249-276.
- McGuire, D.: 1983, 'Teenage suicide: A search for sense', *Acta Sociologica* 27(3), pp. 211-217.
- McGuire, D.: 1982, 'The problem of children's suicides ages 5-14', *International Journal of Offender Therapy Comparative Criminology* 26(1), pp. 10-17.
- McIntosh, J. L., R. W. Hubbard and J. F. Santos: 1981, 'Suicide among the elderly: A review of issues with case studies', *Journal of Gerontological Social Work* 4(1), pp. 63-74.
- McIntosh, J. L.: 1991, 'Middle-age suicide: A literature review and epidemiological study', *Death Studies* 15(1), pp. 21-37.

- McLanahan, S. S. and J. Adams: 1987, 'Parenthood and psychological well-being', *Annual Review of Sociology* 13, pp. 237-257.
- Mercy, J. A., D. D. Tolsma, J. C. Smith and J. M. Conn: 1984, 'Patterns of youth suicide in the United States', *Educational Horizons* 62(4), pp. 124-127.
- Michalos, A. C.: 1991, *Global Report on Student Well-Being, Vol. 1: Life Satisfaction and Happiness* (Springer-Verlag, New York).
- Michalos, A. C.: 1991a, *Global Report on Student Well-Being, Vol. 2: Family, Friends, Living Partner and Self-Esteem* (Springer-Verlag, New York).
- Michalos, A. C.: 1993, *Global Report on Student Well-Being, Vol. 3: Employment, Finances, Housing and Transportation* (Springer-Verlag, New York).
- Michalos, A. C.: 1993a, *Global Report on Student Well-Being, Vol. 4: Religion, Education, Recreation and Health* (Springer-Verlag, New York).
- Molcar, C. C. and D. W. Stuempfig: 1988, 'Effects of world view on purpose in life', *Journal of Psychology* 122(4), pp. 365-371.
- Nelson, F. L., N. I. Farberow and R. E. Litman: 1988, 'Youth suicide in California: A comparative study of perceived causes and interventions', *Community Mental Health Journal* 2(1), pp. 31-42.
- Newman, J. F., K. R. Whittemore and H. G. Newman: 1973, 'Women in the labor force and suicide', *Social Problems* 21(2), pp. 220-230.
- Okun, M. A. and W. A. Stock: 1987, 'Correlates and components of subjective well-being among the elderly', *Journal of Applied Gerontology* 6, pp. 95-112.
- Ornstein, M. D.: 1983, 'The impact of marital status, age, and employment on suicide in British Columbia', *Canadian Review of Sociology and Anthropology* 20(1), pp. 96-100.
- Paerregaard, G.: 1980, 'Suicide in Denmark: A statistical review for the past 150 years', *Suicide and Life Threatening Behavior* 10(3), pp. 150-156.
- Paulson, M. J., D. Stone and R. Sposto: 1978, 'Suicide potential and behavior in children ages 4-12', *Suicide and Life Threatening Behavior* 8(4), pp. 225-242.
- Peck, D. L. and L. K. Bharadwaj: 1980, 'Personal stress and fatalism as factors of college suicide', *Social Science* 55(1), pp. 19-24.
- Peck, D. L.: 1989, 'Teenage suicide expressions: Echos from the past', *International Quarterly of Community Health Education* 1989-1900 10(1), pp. 53-64.
- Peck, D. L.: 1983, 'The last moments of life: Learning to cope', *Deviant Behavior* 4(3-4), pp. 313-332.
- Peck, M.: 1982, 'Youth suicide', *Death Education* 6(1), pp. 29-47.
- Pescosolido, B. A.: 1990, 'The social context of religious integration and suicide: Pursuing the network explanation', *Sociological Quarterly* 31(3), pp. 337-357.
- Poloma, M. M. and B. F. Pendleton: 1990, 'Religious domains and general well-being', *Social Indicators Research* 22(3), pp. 255-276.
- Polonko, K. A., J. Scanzoni and J. D. Teachman: 1982, 'Childlessness and marital satisfaction: a further reassessment', *Journal of Family Issues* 3, pp. 545-573.



- Rhyne, D.: 1984, *Marital Satisfaction in Canada: A Descriptive Overview* (York University, Institute for Behavioural Research, Toronto).
- Rich, C. L., M. Sherman and R. C. Fowler: 1990, 'San Diego suicide study: The adolescents', *Adolescence* 25(100), pp. 855-865.
- Rico, V. and L. Mynko: 1973, 'Suicide and marital status: A changing relationship?' *Journal of Marriage and the Family* 47(4), pp. 931-937.
- Sabatelli, R. M. and E. F. Cecil-Pigo: 1985, 'Relational interdependence and commitment in marriage', *Journal of Marriage and the Family* 47(4), pp. 931-937.
- Sabatelli, R. M., R. L. Meth and S. M. Gavazzi: 1988, 'Factors mediating the adjustment of involuntary childlessness', *Family Relations* 37(3), pp. 338-343.
- Schumm, W. R., A. P. Jurich and S. R. Bollman: 1985, 'His and her marriages revisited', *Journal of Family Issues* 6, pp. 21-27.
- Seiden, R. H.: 1981, 'Mellowing with age', *International Journal of Aging and Human Development* 13, pp. 265-284.
- Shaw, D. G.: 1986, 'Suicide and social integration in Lancaster County', *Sociological Viewpoints* 2(1), pp. 15-30.
- Simpson, M. E. and G. H. Conklin: 1989, 'Socioeconomic development, suicide and religion: A test of Durkheim's theory of religion and suicide', *Social Forces* 67(4), pp. 945-964.
- Smith, J. C., J. A. Mercy and J. M. Conn: 1988, 'Marital status and the risk of suicide', *American Journal of Public Health* 78, pp. 78-80.
- Stack, S.: 1980, 'The effects of marital dissolution on suicide', *Journal of Marriage and the Family* 42(1), pp. 83-92.
- Stack, S.: 1981a, 'Comparative analysis of immigration and suicide', *Psychological Reports* 49(2), pp. 509-510.
- Stack, S.: 1981b, 'Suicide and religion: A comparative analysis', *Sociological Focus* 14(3), pp. 207-220.
- Stack, S.: 1982, 'Aging and suicide: A cross-national study', *International Journal of Contemporary Sociology* 19(3-4), pp. 125-138.
- Stack, S.: 1983a, 'The effect of religious commitment in suicide: A cross-national analysis', *Journal of Health and Social Behavior* 24(4), pp. 326-374.
- Stack, S.: 1983b, 'The effect of the decline in institutionalized religion on suicide, 1954-1978', *Journal for the Scientific Study of Religion* 22, pp. 239-252.
- Stack, S.: 1989, 'The impact of divorce on suicide in Norway, 1951-1980', *Journal of Marriage and the Family* 51(1), pp. 229-238.
- Stack, S.: 1990, 'The effect of divorce on suicide in Denmark, 1951-1980', *Sociological Quarterly* 31(3), pp. 359-370.
- Stock, W. A., M. A. Okun and M. Benin: 1986, 'The structure of subjective well-being among the elderly', *Psychology and Aging* 1, pp. 91-102.
- Stock, W. A., M. A. Okun, M. J. Haring and R. A. Witter: 1983, 'Age differences in subjective well-being: A meta-analysis', *Evaluation Studies Review Annual* 8, pp. 279-302.

- Stock, W. A., M. A. Okun, M. J. Haring and R. A. Witter: 1985, 'Race and subjective well-being in adulthood', *Human Development* 28, pp. 192–197.
- Stafford, M. C. and J. P. Gibbs: 1988, 'Change in the relation between marital integration and suicide rates', *Social Forces* 66(4), pp. 1060–1079.
- Starr, J. M.: 1986, 'American youth in the 1980's', *Youth and Society* 17(4), pp. 323–345.
- Stefansson, C. G.: 1991, 'Long-term unemployment and mortality in Sweden, 1980–1986', *Social Science and Medicine* 32(4), pp. 419–423.
- Steffensmeir, R. H.: 1984, 'Suicide and the contemporary woman: Are male and female suicide rates converging?' *Sex-Roles* 10(7–8), pp. 613–631.
- Stones, M. J. and A. Kozma: 1985, 'Structural relationships among happiness scales: A second order factorial study', *Social Indicators Research* 17(1), pp. 19–28.
- Taylor, R. L.: 1990, 'Black youth: The endangered generation', *Youth and Society* 22(1), pp. 4–11.
- Templer, D. and G. Cappelletty: 1986, 'Suicide in the elderly: Assessment and intervention', *Clinical Gerontologist* 5(3–4), pp. 475–487.
- Tepperman, L. and H. Laasen: 1990, 'The future of happiness', *Futures* 22(10), pp. 1059–1070.
- Tepperman, L.: 1994, *Choices and Chances: Sociology for Everyday Life*. Second edition. Toronto: Harcourt Brace and Company, Canada.
- Tower, M.: 1989, 'A suicide epidemic in an American Indian community', *American Indian and Alaska Native Health Research* 3(1), pp. 34–44.
- Trovato, F.: 1987, 'A longitudinal analysis of divorce and suicide in Canada', *Journal of Marriage and the Family* 49(1), pp. 193–203.
- Trovato, F.: 1986a, 'Suicide and ethnic factors in Canada', *International Journal of Social Psychiatry* 32(3), pp. 55–64.
- Trovato, F.: 1986b, 'The relationship between marital dissolution and suicide: The Canadian case', *Journal of Marriage and the Family* 48(2), pp. 341–348.
- Trovato, F. and G. K. Jarvis: 1986, 'Immigrant suicide in Canada: 1971 and 1981', *Social Forces* 65(2), pp. 433–457.
- Veenhoven, R.: 1984, *Conditions of Happiness* (D. Reidel Publishing Company, Dordrecht).
- Veenhoven, R.: 1983, 'The growing impact of marriage', *Social Indicators Research* 12, pp. 49–63.
- Veevers, J. E.: 1973, 'Parenthood and suicide: An examination of a neglected variable', *Social Science and Medicine* 7(2), pp. 135–144.
- Webster-Stratton, C.: 1989, 'The relationship of marital support, conflict, and divorce to parent perceptions, behaviors, and childhood conduct problems', *Journal of Marriage and the Family* 51(2), pp. 417–430.
- Weingarten, H. and F. B. Bryant: 1987, 'Marital status and the meaning of subjective well-being: A structural analysis', *Journal of Marriage and the Family* 49(4), pp. 883–892.

- Wenz, F. V.: 1979, 'Sociological correlates of alienation among adolescent suicide attempts', *Adolescents* 14(53), pp. 19–30.
- Woznicka, J. G. and J. R. Shapira: 1990, 'An analysis of adolescent suicide attempts: The expendable child', *Journal of Pediatric Psychology* 15(6), pp. 789–796.
- Yang, B.: 1992, 'The economy and suicide: A time-series study of the USA', *American Journal of Economics and Sociology* 51(1), pp. 87–99.

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