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## **Cultural correlates of youth suicide**

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### **Abstract**

Youth suicide has risen in most developed nations over the past 50 years, especially among males, but the increase remains to be explained. Statistical analyses were used to examine associations between youth suicide rates in 11-21 mainly Western, developed nations and 32 socio-economic and cultural variables. The central hypothesis was that suicide rates would be correlated with various cultural measures of social attachment and integration, especially individualism. Socio-economic variables were included in the analysis to demonstrate the relative strength of the cultural associations. The study found a strong positive correlation between male youth suicide rates and subjective measures of health, optimism and several indices of individualism, including personal freedom and control. Correlations between female youth suicide and individualism were smaller, attaining significance in only one instance. Male youth suicide and individualism were negatively correlated with older people's sense of parental duty. Correlations between suicide and other possibly relevant cultural variables – tolerance of suicide, belief in God and national pride - were not significant. The analysis of socio-economic variables yielded only one significant, but doubtful, correlation. The findings can be interpreted as supporting two, very different hypotheses: that youth suicide represents 'an island of misery in an ocean of happiness' or 'the tip of an iceberg of suffering'. In favouring the latter interpretation, and consistent with Durkheim's theories on suicide, it is argued that increased youth suicide reflects a failure of Western societies to provide appropriate sites or sources of social identity and attachment, and, conversely, a tendency to promote unrealistic or inappropriate expectations of individual freedom and autonomy.

### **Key words**

Culture, happiness, individualism, suicide, youth

## Introduction

Suicide, which has been called the mortality of depression, ranks in the ten leading causes of death in the developed world (Murray & Lopez, 1996). Depression is the leading cause of disability in the world, and its burden is estimated to be rising (WHO, 1999). In the global ranking of disease burden measured in terms of both disability and death (disability-adjusted life years or DALYs), major depression is projected to rise from fourth in 1990 to second in 2020 (Murray & Lopez, 1996). Psychiatric conditions, including depression, accounted for 23% of the disease burden (in DALYs) in high-income countries in 1998, compared to 18% for heart disease and 15% for cancers (WHO, 1999).

Contributing to this overall picture of the increasing relative importance of mental illness, rates of psychosocial disorders among young people have risen since World War II in nearly all developed countries (Rutter & Smith, 1995; Fombonne, 1998). These disorders include drug abuse, crime, depression and suicidal behaviour. The rise in suicide among young males has been a striking feature of these trends (Cantor, 2000).

Rutter and Smith (1995, pp. 782-808) say that, to a large extent, finding causal explanations of the increases in psychosocial disorder among young people 'remains a project for the future'. However, they regard as unlikely several popular explanations for the trends, such as social disadvantage, inequality, and unemployment, although other reviews include these as risk factors in youth suicide (eg, Beautrais, 2000; Cantor & Neulinger, 2000; Stack 2000b). More likely explanations include: family conflict and breakup; increased expectations and individualism; and changes in adolescent transitions (in particular, the emergence of a youth culture that isolates young people from adults and increases peer group influence, more tension between dependence and autonomy, and more romantic relationship breakdowns).

Of particular relevance to this study, Rutter and Smith (1995, p. 804-807) call for further investigation of the theory that shifts in moral concepts and values are among the causes of increased psychosocial disorder. They note, in particular, 'the shift towards individualistic values, the increasing emphasis on self-realisation and fulfilment, and the consequent rise in expectations'. 'It is plausible that increasing individualism leads to increased risks, especially for young people at moments of transition.' They also note that more effective use should be made of cross-national differences in testing possible explanations.

Eckersley (1993, 1995, 1998a, 2001) has also suggested that cultural changes in Western societies have contributed to the trends in psychosocial disorders. These include, but go beyond, increasing individualism. Modern Western culture may be failing to do what cultures do: provide a web or matrix of stories, beliefs and values that holds a society together, allows individuals to make sense of their lives and sustains them through the trouble and strife of mortal existence.

The exploration of the role of culture in suicide fits within a broader sociological tradition flowing from Durkheim's seminal work relating suicide to social integration (Durkheim, 1970). In a recent review, Stack (2000a, 2000b) notes that recent research has often questioned or reformulated the traditional Durkheimian perspective. However, the research has focused on specific groups, and the differences between them, based on gender, ethnicity, migration, religion and marriage, or on the effects of specific factors such as the media, poverty and inequality, and unemployment. With few exceptions, which are discussed later,

the research has not examined the role in suicide of broad cultural qualities such as individualism.

‘Culture’ is a difficult concept to address because it is defined and used differently between different disciplines, and even within the same discipline. Culture can be taken to include all aspects of society, to describe an entire way of life of a people. However, it is often distinguished from social structure: culture is a system of meanings and symbols that defines how people see the world and their place in it, while social structure refers to the pattern of social relations within a society (Eckersley, 2001).

Several cultural qualities are widely considered to characterise Western culture, although they are not necessarily confined to it, and are, in fact, becoming increasingly global in their influence. These include individualism, which places the individual at the centre of a system of values, behavioural choices and convictions (Halpern, 1995) and emphasises personal autonomy, independence and self-actualisation. This is not to argue that cultures are monolithic, exerting a uniform effect on everyone, regardless of gender, class and ethnicity; nor that individuals are cultural sponges, passively absorbing cultural influences rather than interacting actively with them; nor that there is not a variety of subcultures marked by sometimes very different values, meanings and beliefs. Nevertheless, the trends in qualities such as individualism are historically important and their effects pervasive, including on population health and well-being (Eckersley, 2001).

Cross-country comparisons offer a promising way of exploring sociocultural associations with young people’s psychosocial well-being. While youth suicide, for example, has increased in most developed nations, there are substantial differences between these nations in both youth suicide rates and the extent of the increase in these rates (see Table 1). There are also marked differences in a wide range of socio-economic and cultural factors that might influence rates of youth suicide and so help to explain their trends.

*[Insert Table 1 about here.]*

Ecological research, involving the use of group data, has been criticised where associations at a group level have been applied at an individual level (‘the ecological fallacy’). However, its value and importance have been defended (Rutter, 1995; Marmot, 1998). Marmot (1998), drawing on the influential work of Rose (1992) in population health, argues that ecological analyses are not second rate, but are the most useful way to examine the effect of social environment on health.

Ecological research underpins the growing emphasis in public health on the social determinants of health, as distinct from individual lifestyle and other risk factors (e.g. Marmot & Wilkinson, 1999). This shift in focus has been recommended even with events as rare as suicide. Gunnell and Frankell (1994), in examining the effectiveness of interventions targeting people at high risk of suicide, conclude that, ‘to understand the problems of rising suicide in youth, research must address the experience of young men...and treatment must address aspects of economic and social policy at a national level’.

This ecological study focused on suicide among young people aged 15-24. This age group was chosen because the rise in suicide and other psychosocial problems over the past 50 years has occurred among adolescents and young adults, not older people. This suggests that the explanation lies in social, psychological or biological changes that particularly impinge on

younger age groups (Rutter & Smith, 1995, p 807). Male rates were of particular interest because it is among young males that the rise in suicide has been most marked and sustained, and hence has generated most international concern (Cantor, 2000). Female youth suicide rates are generally lower than male rates, and their trends more variable.

The gender differences in youth suicide do not mean it is a male problem. Young women continue to attempt suicide more often than young men, but die less often because they tend to use less fatal means, especially overdosing (Cantor, 2000). Medical and other advances - including the development of intensive-care and life-support technologies and procedures, and the introduction of less toxic pharmaceutical drugs - have reduced the lethality of suicide attempts during the past few decades (Harrison & Moller, 1998; Cantor, 2000), impacting particularly on female suicide. These developments also mean that trends in suicide rates are likely to under-estimate the increase in suicidal behaviour among young people.

However, it is also possible that some sociocultural changes in Western societies in the second half of the 20<sup>th</sup> Century have adversely affected men more than women, or have been offset in women by other changes, and so had more impact on men. Such issues include the changing role and status of women, and a gender difference in how the self is seen or construed. These issues are considered in the discussion.

The study focused on developed (OECD) nations for three main reasons: it is among these nations that youth suicide has risen, sometimes dramatically; doubts about the reliability of the suicide statistics for developing nations; and a view that the comparison should be limited to those nations that are, very broadly, similar. In other words, the countries are mainly Western, industrialised, liberal democracies - so allowing a comparison of specific aspects of dissimilarity (Japan, as an OECD nation, was included in most comparisons, but the analysis indicates that it is, in some important respects, very different from Western OECD nations). Cantor (2000) also favours studying homogeneous nations, saying: 'While exploration of diverse nations may yield information about gross or universal suicide trends, exploration of more similar nations may ultimately be more productive.'

Even if studies are limited to industrial nations, there are dangers to heed. For example, suicide records may not accurately reflect real suicide rates, and the accuracy may differ from country to country. Suicide may be under-reported in countries such as Italy and Spain because of the Catholic Church's proscription of suicide. A recent British study of coroner's records suggests the real rate of suicide among young people may be up to three times the official recorded level (Madge & Harvey, 1999). It notes that in England there is a 'burden of proof' that ensures a suicide verdict is reached only when there is no doubt a person took his or her own life. Some other countries adopt a less restrictive, 'balance of probabilities' approach. Stack (2000a), however, concludes that while there are probable undercounts of suicide, 'the measurement errors involved are not considered potent enough to substantially affect the results of most sociological work'.

## **Methods**

The principal hypothesis tested in the study is that youth suicide rates in developed nations would be significantly correlated with various cultural measures of social attachment and integration, especially individualism. A secondary hypothesis was that significant correlations would be more likely with male youth suicide than female.

The study investigated the association between male and female youth suicide and 22 cultural variables, using Pearson correlation coefficients, factor analysis and partial correlations. The cultural factors were measured mainly by people's attitudes (in most instances young people's) to a wide range of issues. These factors embraced three main subjects: quality of life (including happiness, life satisfaction and optimism); social attachment (including national pride, trust and religious belief); and individualism (including personal freedom and control, choice and individualistic values). These data were for the early and mid-1990s; the suicide data were for males and females aged 15-24 for single years from 1991 to 1993 (WHO, 1994; ABS, 1994). The number of countries for which data were available ranged from 14 to 20. More details about the variables on which the cultural analysis is based are given in Table 2.

*[Insert Table 2 about here.]*

In addition to these core analyses, correlational tests were carried out for: total male suicide rates and nine of the cultural variables, including five related to individualism (v.7, 15, 17, 19, 22); and male youth suicide rates and two key variables (v.21, 22) for an expanded list of countries that included more non-Western nations (Argentina, Colombia, Hong Kong, Israel, Poland, Russia, Singapore and Ukraine).

The data were drawn from a variety of sources. Thirteen variables were taken from the World Values Survey (Inglehart, Basanez & Moreno, 1998); five from Veenhoven, four of which came from his study of individualism and quality of life (Veenhoven, 1999); and four from two other international surveys. Details of the survey sources are as follows: the World Values Survey, 1990-93, which involved face-to-face interviews with representative national samples usually of 1,000 to 2,000 adults aged 18 and over in 43 nations (Inglehart, Basanez & Moreno, pp.467-476); the New World Teen Study, 1995-96, which involved self-administered questionnaires completed in class by over 25,000 students aged 15-18 in 41 countries (DMB&B, 1996); and The Economist/Angus Reid Poll, 1998, which involved over 15,600 adults in 29 countries, using mostly national samples of 500 and both face-to-face and telephone interviews (Angus Reid, 1998).

An unpublished, earlier analysis of youth suicide and 10 socio-economic variables was extended and is included to demonstrate the strength of the cultural associations relative to key structural factors, including those that are often associated with suicide. These factors were: youth unemployment, poverty, divorce, social expenditure (including health and education), social security transfers (a measure of welfare), per capita Gross Domestic Product (GDP) (a wealth measure), crime, income distribution and fertility (a measure of family size). The data were for 1984-90; the suicide data were for males and females aged 15-24 for single years from 1986 to 1991, most for 1989 or 1990, drawn from World Health Organization statistics (WHO, 1989-91). The number of countries for which data were available ranged from 11 to 21.

## **Results**

The analysis of socio-economic factors produced only one significant result: a negative correlation between female youth suicide and youth unemployment ( $r = - 0.560$ ,  $p = 0.030$ ) (see Table 3). There was a relatively strong negative correlation between male youth suicide and social security transfers as a percentage of GDP ( $r = - 0.449$ ,  $p = 0.054$ ).

The analysis of cultural factors yielded several significant correlations: male youth suicide was negatively correlated with older people's sense of parental duty (v.1,  $r = -0.544$ ,  $p < 0.05$ ); it was positively correlated with trust in others (v.16,  $r = 0.500$ ,  $p < 0.05$ ), self-assessed health (v.20,  $r = 0.642$ ,  $p < 0.01$ ), personal optimism (v.21,  $r = 0.668$ ,  $p < 0.01$ ), and several measures of individualism, including personal freedom and control (v.22,  $r = 0.677$ ,  $p < 0.01$ ) (see Table 4). This last variable (v.22) shows a quadratic, or curvilinear, relationship with male youth suicide, suggesting the association is stronger at higher levels of individualism (see Figure 1). Correlations between male youth suicide and other possibly relevant variables – tolerance of suicide (v.2), belief in God (v.6), national pride (v.11), happiness (v.13), life satisfaction (v.10), quality of life (v.9) and optimism about the future of the world (v.12) – were not significant.

*[Insert Tables 3 and 4 about here.]*

*[Insert figure 1 about here.]*

Health (v.20) and optimism (v.21), and to a lesser extent trust (v.16), were significantly correlated with individualism. For personal freedom and control (v.22, a measure of individualism that, like these variables, used age-specific data),  $r = 0.655 - 0.775$  ( $p < 0.01$ ). Measures of individualism were strongly correlated with each other, the exception being 'opportunity to choose' (v.7), the one individualism variable not correlated with suicide. Sense of parental duty in the older generation (v.1.) was significantly and negatively correlated with all eight variables significantly and positively correlated with youth suicide ( $r = -0.514 - -0.634$ ,  $p < 0.05$ ). The correlations between male youth suicide and the various measures of life satisfaction and happiness were positive but not significant. However, these variables were significantly correlated with individualism (and with each other). For life satisfaction (v.10) and personal freedom and control (v.22) (both drawn from the same age-specific data set),  $r = 0.818$  ( $p < 0.01$ ).

With female youth suicide rates, the correlation with individualism remained positive, but the only significant correlation was with 'capability to choose' (v.17) ( $r = 0.465$ ,  $p < 0.05$ ). Two others (v.15, 19), however, almost achieved significance. Male and female youth suicide rates were significantly and positively correlated ( $r = 0.636$ ,  $p < 0.01$ ). The significant correlations between suicide and individualism disappeared when total male suicide rates were used, and when the range of countries was extended to include other non-Western nations.

A factor analysis of the cultural variables was undertaken to look for any underlying factors that might express cultural qualities better than any single variable. Two variables (v.8, 9) were omitted because of missing values. Even so, the factor analysis was limited by missing data to 11 countries. Two factors emerged, together accounting for 68% of the variance in the remaining 20 variables. After rotation, the variables appeared to be well segregated into two clusters, each expressing (loading on) one of two factors.

The principal factor, which accounted for 44% of the variance, contributed strongly to nine variables (v.2, 3, 4, 5, 6, 7, 13, 14, 16). However, the factor does not appear to express any common characteristic (not unusual in factor analysis) and was not correlated with youth suicide. The second factor, which explained 24% of the variance, contributed strongly to 11 variables (v.1, 10, 11, 12, 15, 17, 18, 19, 20, 21, 22), including all but one of the individualism variables (v.7, 'opportunity to choose', fitted into the first cluster). This factor

appears to express individualistic qualities, and was highly correlated with male youth suicide ( $r = 0.57$ ,  $p = 0.06$ ), but not female youth suicide ( $r = 0.27$ ,  $p = 0.42$ ).

A separate factor analysis of only the six individualism variables (v.7, 15, 17, 19, 18, 22) permitted the inclusion of 15 countries. The resulting principal factor explained 66% of the variance in these variables, and was strongly correlated with male youth suicide ( $r = 0.64$ ,  $p = 0.01$ ), but, again, not female suicide ( $r = 0.30$ ,  $p = 0.27$ ). Again, 'opportunity to choose' (v.7) stood out from the others, being less dependent on the principal factor (loading = 0.53) than the other five variables (loadings = 0.82 – 0.89). Being based on political and economic, as well as personal, freedom, this variable may embrace more than individualism.

When the effect of individualism on the positive variables related to optimism, satisfaction, happiness, health, hope and trust (v.8, 9, 10, 13, 14, 16, 20, 21) was partialled out, the correlation between these variables and male youth suicide changed from positive to negative, with the exception of health, for which the correlation declined and was no longer significant, but remained positive. In the case of life satisfaction (v.10), the negative partial correlation was significant ( $r = -0.71$ ,  $p = 0.03$ ), indicating that, after controlling for individualism, suicide tends to be higher in societies in which life satisfaction is low. The results show that the positive correlation between suicide and these variables, in some cases significant, may be attributable to individualism.

## Discussion

This analysis has shown several significant correlations between youth suicide, especially among males, and cultural attributes of Western societies, notably individualism, so supporting the hypotheses. These cultural correlations were much stronger than those between youth suicide and socio-economic factors, including youth unemployment, divorce and poverty, only one of which was statistically significant. The negative association between female youth suicide and youth unemployment is almost certainly due to confounding by other factors related to social attachment – for example, youth unemployment was high in the low-suicide, Southern European countries. Research generally suggests a positive association between unemployment and suicide, especially for males, although its causal importance remains unclear (Cantor & Neulinger, 2000; Stack, 2000a).

The simplest explanation of the association between suicide and individualism is that suicide is an individualistic act, and the greater the sense of personal autonomy the more likely people are to choose to die. Indeed, suicide might well be regarded as an ultimate expression of individual freedom of choice and control over one's life. The association may say nothing more about a society and people's well-being.

However, the significance of the findings may go further than this. The results present an internally consistent pattern that raises intriguing questions. Do they indicate that youth suicide is associated with not just freer youth, but happier, healthier, and more optimistic youth, so suggesting that youth suicide rises as social conditions and personal prospects improve? Or is there another explanation, one which would suggest higher suicide is associated with greater social adversity? To use two maritime metaphors, are the suicidal an island of misery in an ocean of happiness, or the tip of an iceberg of suffering?

The former hypothesis is supported by some other studies. Lester (1984) tested a hypothesis of Henry and Short (1954) that suicide is more likely when people have no outside source to

blame for their misery, and so should become more common as quality of life improves. He found a significant, positive correlation between suicide rates and quality of life measured by a composite indicator, the International Index of Social Progress. However, in a later analysis of youth suicide, the correlation with quality of life was not statistically significant (Lester, 1988).

Barber (2001) compared youth suicide rates with self-assessed adolescent self-esteem, school adjustment and social adjustment in seven countries, both Asian and Western. He found that male suicide rates were positively and strongly correlated with adolescent adjustment. Correlations between female suicide rates and adjustment were negative, but not significant. On the basis of these findings, Barber rejects – in the case of males – an ‘absolute misery hypothesis’, which argues that suicide is a valid indicator of a wider social malaise among young people. He proposes, instead, a ‘relative misery hypothesis’, which holds that disposition to suicide is influenced by an individual’s affective state relative to others, and so increases with rising overall happiness. ‘When those around them are perceived to be better off than they are, the predisposition of young men to suicide is increased.’

Individualism has been strongly correlated with subjective well-being and happiness in cross-national studies (Diener, Diener & Diener, 1995; Veenhoven, 1999), a finding confirmed in this analysis. Diener and Suh (1997) also note that individualistic societies have higher suicide rates, and suggest that increasing a social variable like personal freedom involves trade-offs, and can have both desirable and undesirable consequences. People in individualistic societies are free to pursue their own goals, which is very rewarding when things go well, but this can be at a cost to social support on which they rely when things go badly. ‘A large number of people find rewarding lives in individualistic societies, but a higher percentage are also likely to feel acutely lonely.’ Similarly, Veenhoven, in commenting on the results of this study, suggests individualism is good for the majority but bad for a minority, especially those who are not good at making choices or establishing and maintaining intimate relations (Ruut Veenhoven, department of social sciences, Erasmus University, Rotterdam, personal communication).

The results of this analysis - showing not only significant correlations between individualism and quality-of-life variables, but also significant positive correlations between trust, optimism and health (v.16, 20, 21) and suicide - appear to support the ‘island of misery’ hypothesis. The loss of statistical significance – and even the reversal of the correlation – when the effect of individualism on the quality-of-life variables is partialled out, casts doubt on Barber’s relative misery hypothesis, but not on other explanations which do not propose a direct, causal relationship between population happiness and suicide.

The ‘island of misery’ hypothesis appears to be supported by other research that shows, for example, that at the individual level, the correlation is reversed – that is, suicidal behaviour is associated with personal pessimism (or hopelessness) and a lack (external locus) of control (Allison, Pearce, Martin, Miller & Long, 1996; Pearce & Martin, 1993). It makes sense that the psychological costs of being pessimistic and powerless are higher in societies where most people feel optimistic and empowered; in a society of ‘winners’, ‘losers’ are likely to feel even more isolated and alienated than they might otherwise.

However, there are reasons for questioning the ‘island of misery’ interpretation. First, the association between suicide and optimism and self-reported good health (v.20, 21) may be at least partly a function of cultural differences between nations. As the correlations show, these



attributes are associated with individualism. While it is possible that individualism promotes optimism and health, it is also possible that more importance is attached to high ratings on these measures in individualistic, competitive societies. Culture may also influence perceptions of trust in others (v.16), which was also correlated with individualism and male youth suicide, although more weakly than optimism and health.

Take the responses to the statement, 'I know that somehow or other I will have a good life' (v.21), the measure of personal optimism used in the analysis. It is hard to see how the life chances of young people would be so much greater in United States or Australia than in France or the Netherlands as to justify the national differences: in the US, 71% agreed and in Australia, 68%; in France only 27% agreed and in the Netherlands, 38% (DMB&B, 1996). The responses are likely to reflect differences in the cultural meaning attached to this expectation, including possible differences in the extent to which the self is seen as separate from others, and so whether the question is interpreted as referring to the individual respondent or to young people in a more collective sense.

Similarly, self-reported health may vary across cultures and over time because of differences in perceptions and expectations of health, making comparisons between different populations problematic. In this analysis, 89% of young people in the US rated their health as good or very good (v.20); in Japan, only 51% did (for all ages the figures are 79% and 44%, respectively) (Inglehart, Basanez & Moreno, 1998). Yet the Japanese have a life expectancy about four years longer than Americans, placing them at opposite ends of the life-expectancy spectrum of developed nations (AIHW, 1998). In other words, cross-national differences in such measures can reflect differences in perception and meaning, not necessarily 'real' or objective differences in life opportunities or health. Studies of the same factors within populations and between populations can measure very different things.

Secondly, the totality of the evidence on both psychosocial well-being and quality of life suggests suicide and other serious forms of psychosocial disorder are indeed 'the tip of an iceberg' of suffering. In particular, there is a striking discrepancy between levels of self-reported happiness and life satisfaction and levels of psychological distress and disturbance among young people (Eckersley, 2000a, 2002). Australia provides a good case study of this discrepancy. Male youth suicide rates have tripled in the past 50 years and are now amongst the highest in the Western world, as shown in Table 1. While surveys reveal about 90% of young people say they are healthy and happy with their lives, studies of psychological distress, mental health problems and suicidal ideation and behaviour indicate substantial proportions of young people are affected to varying degrees. As suicide has climbed, measures of overall subjective well-being suggest a decline among young people, not a rise.

A study of university undergraduates illustrates well the notion of a gradient of distress among young people, which is central to the 'tip of the iceberg' hypothesis (Schweitzer, Klayich & McLean, 1995). While less than 0.02% of young Australians take their own lives each year, the study found almost two thirds of the students admitted to some degree of suicidal ideation or behaviour in the previous 12 months. Based on the most extreme statements with which students agreed, 21% revealed minimum ideation, agreeing they had felt that 'life just isn't worth living', or that 'life is so bad I feel like giving up'; another 19% revealed high ideation, agreeing they had wished 'my life would end', or that they had been 'thinking of ways to kill myself'; a further 15% showed suicide-related behaviour, saying they had 'told someone I want to kill myself', or had 'come close to taking my own life'; and 7% said they had 'made attempts to kill myself'.

Geographic differences in youth suicide trends provide evidence of a different kind. Male youth suicide rates in Australia have risen more, and are now higher, in rural areas than in metropolitan areas, increasing by 4-12-fold in rural areas between 1964 and 1993, compared to a 2.2-fold increase in metropolitan areas (Dudley, Kelk, Florio, Howard, Waters, Haski et al., 1997). While this difference may be partly due to a greater access to firearms (and so to a lethal means of attempting suicide) and lesser access to health and other support services, there have been profound changes in rural Australia – industry restructuring, economic hardship, reduced services, declining opportunities and populations, greater cultural marginalisation - that cannot in any way be described as improvements in overall quality of life, either relative to the past, or to cities.

Other research findings also tend to support to the ‘tip of an iceberg’ hypothesis. For example, Twenge (2000) examined survey data from 1952 to 1993 and found large, linear increases (of about one standard deviation) in anxiety and neuroticism in children and college students in the US. ‘The average American child in the 1980s reported more anxiety than child psychiatric patients in the 1950s,’ she notes. Twenge ascribes the increased anxiety to low social connectedness and high environmental threat, both of which she links to increasing individualism and freedom. Economic factors appeared to play little part in the rise. Anxiety and neuroticism are associated with depression, alcohol and drug abuse, diminished well-being and poorer health. ‘Birth cohort, as a proxy for broad social trends, may be an important influence on personality development, especially during childhood,’ Twenge says.

In the face of this evidence, then, we must consider explanations other than the ‘island of misery’ hypothesis. The positive association between youth suicide and individualism can be interpreted another way: as representing one way in which modern Western societies are damaging young people’s psychosocial well-being. The strong, positive correlation between suicide and individualism supports Durkheim’s theory, proposed a century ago, that suicide is associated with low social attachment, a failure of society to integrate the individual. Durkheim (1970, pp. 361-392) linked this failure to the weakening influence of key social institutions such as the family and religion in binding individuals to society, in keeping ‘a firmer grip’ on them and drawing them out of their ‘state of moral isolation’. ‘Man cannot become attached to higher aims and submit to a rule if he sees nothing above him to which he belongs’, he writes (p.389). ‘To free him from all social pressure is to abandon him to himself and demoralise him.’ Cultural change, it is proposed, can have a similar effect.

Consistent with Durkheim’s theory, individualism may impact on youth suicide through its effect on specific institutions and functions, such as the family and child-rearing, as suggested by the negative correlations between parental duty (v.1) and youth suicide and individualism. It may also impact through politics, as suggested by the rapid rise in male youth suicide in countries such as Australia, New Zealand and the UK (but not, interestingly, the US) in the 1980s, when (individualistic) neo-liberal, market-dominated doctrines became politically dominant. The steep rise in male youth suicide during this period is especially marked in New Zealand (see Table 1), the country which adopted the most radical and rapid economic reforms. Coburn (2000) has drawn attention to the importance of neo-liberalism to population health through its impacts on social cohesion (and inequality).

However, the effects of individualism can be taken further than these institutional instances. Western societies – and some more than others – may be taking individualism to the point where it can become more broadly dysfunctional – to society and the individual.

Individualism may be personally liberating and socially invigorating but, taken too far, it can also be personally isolating and socially fragmenting. In other words, these societies may be promoting a cultural norm of personal autonomy and attainment that is unrealistic, unattainable or otherwise inappropriate, resulting in a gap between expectations and realities. They project images, and raise expectations, of virtually unrestrained individual freedom, choice and opportunity, and of the happiness these qualities are supposed to deliver.

There are several dimensions to this gap, or tension, between cultural ideal, psychological need and social reality. First, there may be today, from the perspective of psychological health, quite simply a surfeit of choice and uncertainty. The openness and diversity of modern life can mean adolescents today are 'confronted with an overload of developmental tasks' (Hurrelman, 1990). Freedom, autonomy and self-determination can become excessive, and freedom experienced as 'a kind of tyranny', increasing dissatisfaction and depression (Schwartz, 2000). Secondly, individualism, because of its self-focus, can undermine or distort the fundamental human need to belong, to form lasting, positive and significant personal relationships (Baumeister & Leary, 1995).

Thirdly, despite perceptions of freedom and control, individual choice remains significantly affected by the traditional social factors of privilege and disadvantage (Furlong & Cartmel, 1997, pp.65-81). Structural changes of recent decades - such as increasing inequality, poverty or unemployment - would have tended to increase this tension between perceived and real choice and opportunity. Fourthly, in contrast to the loosening or liberalising of 'informal' norms, values and constraints associated with individualisation, people's lives are, at least in some respects, becoming increasingly circumscribed by the 'formal' constraints of laws, regulations and rules (Halpern, 1995; Rutter & Smith, p.805). More broadly, the growing social, economic and technological complexity of life today also tends to work against individual agency and empowerment.

The costs of individualism are likely to be greatest in the 'new' industrialised nations such as Australia, New Zealand, Finland, Norway (all of which attained full national status only in the 20th century), the United States and Canada. The cultures of these countries - certainly the English-speaking nations - are more clearly defined by the related 'virtues' of progress, materialism, mobility (both social and geographic) and individualism, and perhaps less tempered by tradition and social obligation. It is among these nations that youth suicide has increased most and is now highest (see Table 1). This is not to claim individualism is the only factor affecting youth suicide. The historically high rates of youth suicide in the Germanic nations and Japan, and their dramatic decline in the latter, suggest the influence of other sociocultural factors.

While this analysis singles out individualism as a possible contributing factor in rising youth suicide, there are other patterns and trends in modern Western culture that are also relevant to mental health. These include consumerism, economism (regarding societies primarily as economic systems) and postmodernism (characterised by relativism, pluralism, transience, ambivalence, ambiguity, fragmentation and contingency) (Eckersley, 1998a; 2001). Many of these characteristics would appear, on the basis of the psychological and sociological literature, to be harmful to well-being through their influence on values, goals, expectations and other qualities important to well-being such as hope, purpose, meaning, belonging, predictability and coherence. On a more positive note, the evidence that male youth suicide rates have plateaued, even declined, in a number of countries, despite the strengthening of

these cultural traits, suggests processes of social and psychological adaptation are occurring – at least with respect to extreme manifestations of distress such as suicide.

It might be argued that the harm done by individualism is limited to young people, particularly young men, while older adults benefit. Certainly, this analysis has only uncovered a cost in young lives and, as already noted, young people's stage of development and socialisation could make them especially vulnerable to the hazards of individualism. While plausible, there are reasons for rejecting this 'half-way' position. These go beyond the scope of this paper, but are linked to a range of quality-of-life research that suggests widespread public disquiet about the current focus and direction of Western societies (Eckersley, 1998b, 2000a, 2000b). In countries such as the US and Australia, at least, this unease includes a common belief that when it comes to things like individual freedom and material abundance, people don't seem to 'know where to stop' or now have 'too much of a good thing' (Eckersley, 2000b).

This study is based on a cross-sectional analysis of suicide rates and sociocultural variables, not a longitudinal analysis, so it does not address directly the secular *trends* in male youth suicide. However it may help to explain these trends because, as already noted, those nations which have seen the largest increases in youth suicide generally now have the highest rates. There is also research evidence to support the widespread perception that Western societies have become more individualistic over the period suicide rates have risen (Halpern, 1995).

The loss of the statistical significance of the association between suicide and individualism when more non-Western nations are included can be explained by the introduction of other significant social differences, so obscuring the effect of individualism. The loss of significance when total male suicide rates are used may be because of the vulnerability of young people to the impact of cultural influences on the transitions associated with adolescence and early adulthood.

The smaller correlations between individualism and female youth suicide could be due to a 'masking' effect of the reduced lethality of suicide attempts in recent decades, affecting female rates in particular. Also, the costs of individualism may have been offset in young women by their improving social status and economic participation (Stack, 2000a). Alternatively or additionally, it could be that, for reasons of biology and/or socialisation, individualism has a lesser effect on females; they remain better socially connected. For example, religiosity seems to offer more protection against suicide to women than to men (Stack, 2000a, 2000b). Cross and Madson (1997) suggest that in the West men tend to construe the self as independent and separate from others, while women are more likely to perceive the self as interdependent, with others considered part of the self. This would suggest individualism is less isolating for women. These factors may help to explain the finding that men are more vulnerable than women to suicide after the break-up of their marriage, with some evidence that younger men are particularly at risk (Cantor & Neulinger, 2000; Cantor, 2000). For men, marriage and family can often be their most important source of belonging and defence against isolation.

The 'tip of an iceberg' hypothesis is consistent – while the 'island of misery' hypothesis is not – with the observation of Rose (1992; Marmot, 1998) that both exposures (causes) and outcomes (effects) are distributed continuously in a population, and that there is a relation between the mean of a characteristic and the prevalence of deviance. Indeed, Rose (1992, p.72) even uses the 'iceberg' metaphor to describe this relationship, making specific reference

to mental illness: ‘The visible part of the iceberg (prevalence) is a function of its total mass (the population average)’. The reversed correlation between individual-level and population-level associations of suicide with optimism and control, noted above, is also consistent with his observation that the determinants of variations between individuals within a population may be different from the determinants of variations between populations.

Marmot (1998) and Wilkinson (1999) challenge criticisms of ecological research and caution, instead, against the ‘atomistic’ or ‘individualistic fallacy’, where analyses at the individual level are inappropriately used in seeking to determine environmental causes of disease and disorder. Thus it would be an ‘ecological fallacy’ to infer from this study that *individuals* who feel in control of their lives and optimistic about their futures are more likely to commit suicide. It would be an ‘individualistic fallacy’ to infer from individual-level findings that *populations* with high youth suicide rates are characterised by low levels of perceived optimism and freedom.

## **Conclusion**

The association between youth suicide and individualism revealed in this study can be interpreted in two quite different ways. It can be seen as a price we pay for progress – for making life better for most people, but at a cost to a small minority. Alternatively, it can be seen as representing one way in which modern Western society and its culture are harming a growing and substantial proportion of young people through a failure to provide appropriate sites or sources of social identity and attachment, and, conversely, a tendency to promote false expectations of individual autonomy.

We might conclude that in failing to differentiate between these diametrically opposed interpretations, the analysis has little to offer. The uncertainties about the comparability of data across nations must add to this possibility. Certainly more work is needed to clarify the complex and subtle interplay of personal, social, economic and cultural factors that lies behind the increased rates of suicide and other psychosocial disorders in young people in the Western world.

Nevertheless, this cross-country comparison of socio-economic and, especially, cultural correlates of youth suicide has yielded interesting, and possibly important, findings. The analysis shows, however, that such comparisons should not be considered in isolation from other approaches and perspectives. Every piece of the puzzle has to be fitted if the picture is to be completed. The more complete the picture the better the prospects of understanding youth suicide, and so preventing it.

The implications of the two interpretations for suicide prevention, and mental health strategies generally, are profound. If the ‘island of misery’ hypothesis is accepted, then we are justified in focusing preventive approaches on the minority of people at risk. If, on the other hand, the ‘tip of an iceberg’ hypothesis is supported, then suicide prevention must become part of a much broader effort to reform Western societies and their cultures, to effect whole-system change. As Rose (1992, p.129) observes, in arguing that the primary determinants of disease are mainly economic and social: ‘Medicine and politics cannot and should not be kept apart’.

Beyond the issue of suicide, the analysis also highlights the importance of exploring cultural influences in seeking to understand the social determinants of health and well-being. The recent literature in this area focuses heavily on social structure, especially inequality, while

the role of culture is seen as distal and diffuse, and is largely ignored (Eckersley, 2001). This study suggests that culture, in the broad sense used here, may be a seriously under-estimated determinant, with the potential both to interact with, and modify, the impact of social inequality and to act independently of structural factors.

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**Table 1: Comparisons of suicide rates for males and females, aged 15-24, in developed nations, 1950s to 1990s<sup>a</sup>**

Country	Sex	1950 <sup>1</sup>	1960	1970	1980 <sup>2</sup>	1990 <sup>3</sup>
NZ	m	10	6	12	12	40
	f	na	2	4	4	6
Finland	m	23	19	23	36	33
	f	6	4	7	5	3
Norway	m	8	6	5	15	28
	f	na	1	2	5	5
Switzerland	m	na	25 <sup>4</sup>	22	33	25
	f	na	7 <sup>4</sup>	8	12	5
Canada	m	na	8 <sup>4</sup>	18	25	25
	f	na	2 <sup>4</sup>	4	5	6
Australia	m	7	7	12	18	25
	f	2	2	5	6	4
USA	m	7	8	14	20	22
	f	3	2	4	5	4
Ireland	m	3	1	3	10	22
	f	0	0	0	2	2
Austria	m	19	18	26	29	21
	f	12	8	5	7	7
Sweden	m	11	9	19	17	17
	f	5	5	8	9	5
France	m	7	6	10	14	14
	f	3	4	na	5	4
Denmark	m	11	12	11	16	13
	f	8	4	6	8	2
Germany	m	16	19	20	22	13
	f	8	8	7	7	3
England <sup>5</sup>	m	5	6	6	6	12 <sup>4</sup>
	f	2	3	3	3	2
Japan	m	30	41	14	20	10
	f	20	33	12	10	4
Netherlands	m	4	3	6	8	9
	f	3	4	4	4	4
Spain	m	5	5	2	4	7
	f	2	2	1	1	2
Italy	m	5	4	4	5	6
	f	3	4	2	2	2
Portugal	m	10	8	6	na	4
	f	6	5	4	na	2
Greece	m	na	3 <sup>4</sup>	na	na	3
	f	na	6 <sup>4</sup>	na	na	1

- a. Rate per 100,000, ranked in order of 1990s male rates.
  1. Rates for 1950-55, most 1950 (OECD, 1986).
  2. Rates for 1978-80, most 1979,1980 (OECD, 1986)
  3. Rates for 1991-93, (WHO, 1994; ABS, 1994; cited in CDHFS, 1997).
  4. From Cantor (2000)
  5. Data for England and Wales; most other data in analysis is for UK or Britain.

**Table 2: Items used in cultural analysis**

<b>Variable</b>	<b>Response</b>	<b>Age group</b>
1,3. Parents' duty is to do their best for their children even at the expense of their own well-being. <sup>1</sup>	% choosing this over counter statement	50+, 16-29
2. Please tell me whether [suicide] can always be justified, never be justified, or something in between? <sup>1</sup>	% never justified	16-29
4. Do you ever think about death? <sup>1</sup>	% often	16-29
5. How often do you think about the meaning and purpose of life? <sup>1</sup>	% often	16-29
6. How important is God in your life? <sup>1</sup>	% very important (7-10, 10-pt scale)	16-29
7. Opportunity to choose: composite index of political, economic and personal freedom. <sup>2</sup>	Factor score	
8. Hope Index: whether people expect to be better off in one year, in ten years, and whether their children will be better off than they are. <sup>3</sup>	Composite score	Adult
9. How would you rate your satisfaction with your [overall quality of] life? <sup>3</sup>	% satisfied (6-7, 7-pt scale)	Adult
10. How satisfied are you with your life as a whole these days? <sup>1</sup>	% satisfied (7-10, 10-pt scale)	16-29
11. How proud are you to be [nationality]? <sup>1</sup>	% very proud	16-29
12. The world will improve in my lifetime. <sup>4</sup>	% agreeing	15-18
13. Would you say you are very happy, quite happy, not very happy, or not at all happy? <sup>1</sup>	% very happy	16-29
14. Appreciation of life (life satisfaction). <sup>5</sup>	Factor score	
15. Individualisation: Triandis' expert estimate. <sup>2</sup>	Score 1-10	
16. Would you say that most people can be trusted or that you can't be too careful in dealing with people? <sup>1</sup>	% most people can be trusted	16-29
17. Capability to choose: Human Development Report data on educational attainment and media access. <sup>2</sup>	Factor score	
18. There should be greater incentives for individual effort. <sup>1</sup>	% agree (7-10, 10-pt scale)	16-29
19. Individualistic values: Hofstede's IBM work values. <sup>2</sup>	Factor score	
20. How would you describe your state of health these days? <sup>1</sup>	% very good or good	16-29
21. I know that somehow or other I will have a good life. <sup>4</sup>	% agreeing	15-18
22. Some people feel they have completely free choice and control over their lives, and other people feel that what they do has no real effect on what happens to them. <sup>1</sup>	% great deal of choice and control (7-10, 10-pt scale)	16-29

1. World Values Survey 1991-93 (Inglehart et al. 1998)
2. Veenhoven 1999 (v.7 based on World Values Survey data)
3. Angus Reid 1998
4. New World Teen Study, 1995-96 (DMB&B, 1996)
5. Veenhoven (Wearing & Headey, 1998)

**Table 3: Socio-economic correlates of youth suicide<sup>a</sup>**

Variable	Male		Female		N
	r	p	r	p	
Social security expenditure <sup>1</sup>	-.449	.054	-.156	.523	19
Youth unemployment <sup>2</sup>	-.376	.167	-.560*	.030	15
Crime <sup>3</sup>	-.302	.340	-.483	.111	12
Income inequality <sup>4</sup>	-.215	.408	-.462	.062	17
Social expenditure <sup>5</sup>	-.086	.720	.164	.489	20
Poverty (child) <sup>6</sup>	.196	.564	-.393	.231	11
Divorce <sup>7</sup>	.272	.275	.125	.620	18
Poverty (non-elderly) <sup>8</sup>	.278	.357	-.213	.484	13
GDP per capita <sup>9</sup>	.297	.191	.369	.100	21
Fertility <sup>10</sup>	.408	.067	.210	.361	21

\* Significant at 0.05 level

\*\* Significant at 0.01 level

a. Ranked according to correlation coefficients for males.

1. Per cent of GDP, 1985-88 (Saunders, 1990).
2. Per cent of labour force, under 25, 1987-90, (OECD, 1991,1992).
3. Per cent victimised by at least one type of crime, 1988 (Walker et al. 1990).
4. Gini index (higher value means greater inequality), 1986-94 (World Bank, 1999).
5. Per cent GDP, 1984-85 (Saunders, 1990).
6. Per cent of all children, 1979-87 (Luxembourg Income Study).
7. Per 1,000 population, 1988 (Kurian, 1991).
8. Per cent of non-elderly families, 1984-1987 (Forster, 1994; cited in Saunders 1998).
9. 1990 dollars using purchasing power parities ((OECD, 1991, 1992).
10. Rate per woman, 1985-1990 (United Nations, 1998).

**Table 4: Cultural correlates of youth suicide<sup>a</sup>**

Variable	Males		Females		N
	r	p	r	p	
1. Parental duty (50+)	-.544*	.029	-.325	.220	16 <sup>1</sup>
2. Suicide not justified	-.323	.207	-.243	.347	17
3. Parental duty (16-29)	-.260	.331	-.130	.632	16 <sup>1</sup>
4. Thoughts of death	-.108	.690	-.142	.599	16
5. Meaning of life	0	.999	-.007	.978	17
6. Importance of God	.164	.530	.051	.845	17
7. Opportunity to choose	.206	.428	.247	.339	17
8. Hope	.274	.343	.023	.937	14
9. Quality of life	.337	.239	.119	.685	14
10. Life satisfaction	.344	.176	-.033	.901	17
11. National pride	.384	.128	-.045	.863	17
12. World will get better	.397	.143	.084	.767	15
13. Happiness	.401	.111	.251	.331	17
14. Appreciation of life	.413	.070	.332	.152	20
15. Individualisation	.473*	.035	.422	.064	20
16. Trust	.500*	.041	.182	.484	17
17. Capability to choose	.544*	.016	.465*	.045	19
18. Individual effort	.588*	.017	-.011	.969	16
19. Individualistic values	.624**	.003	.431	.058	20
20. Good health	.642**	.005	.241	.351	17
21. Have a good life	.668**	.006	.287	.299	15
22. Freedom and control	.677**	.003	.200	.441	17

\* Significant at 0.05 level

\*\* Significant at 0.01 level

a. Ranked according to correlation coefficients for males.

1. Data for Japan were deleted for this variable as they were well below those for Western nations.

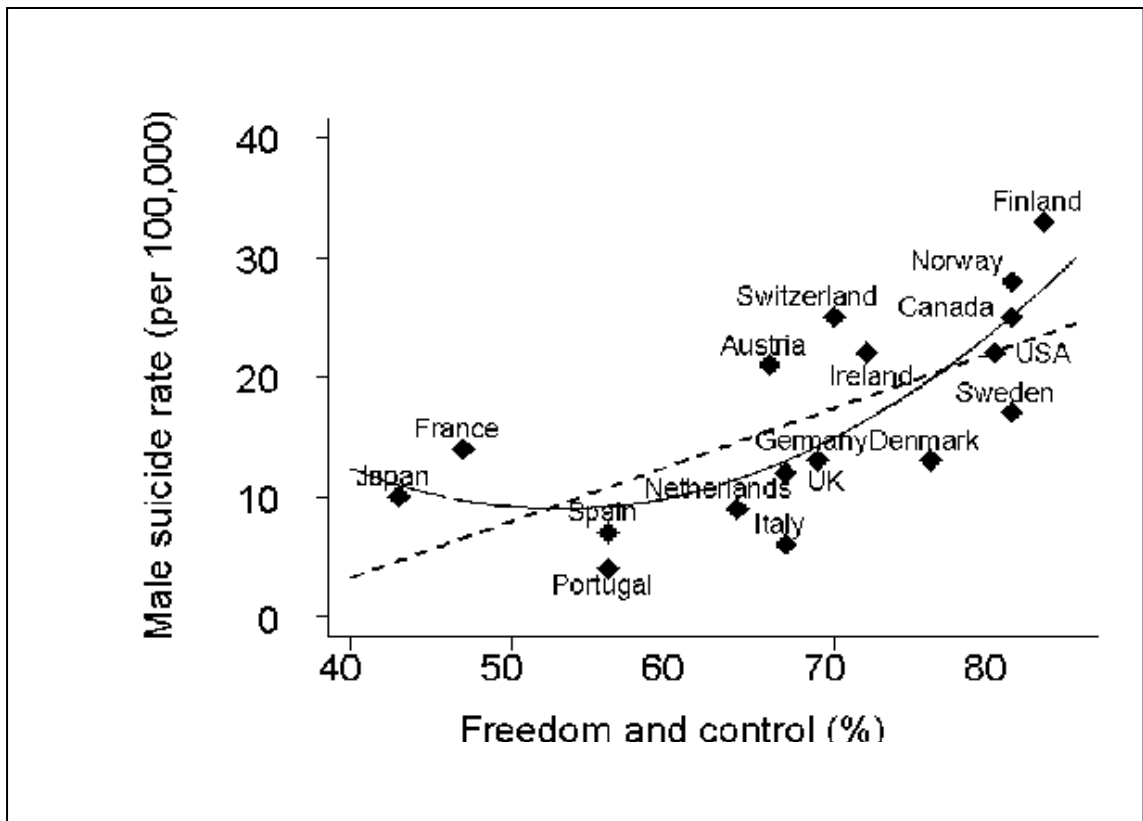


Figure 1: The relationship between suicide rates for males aged 15-24 and sense of personal freedom and control (v.22). A quadratic model shows significant curvature in the relationship ( $p = 0.032$ ), and increases the multiple correlation from  $R = 0.68$  for the linear model to  $R = 0.76$ .