

When Promises Fail: A Theory of Temporal Fluctuations in Suicide*

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Abstract

Numerous studies have reported that suicide rates tend to be affected by temporal variables (month, day of the week, day of the month, holidays). Few authors have provided convincing explanations of these relations, and no one except Durkheim has suspected that they display similarities which indicate that they might have some causal origins in common. This article attempts to look at several temporal correlations as examples of the same underlying dynamics and to offer a theory which helps to organize a traditionally enigmatic body of research.

—Suicide is most frequent in the spring months and least frequent during the winter.

—A secondary peak occurs in the fall, but primarily among women.

—Suicide peaks on Monday, then declines to a trough on the weekend.

—The suicide rate is typically lower than normal on major holidays, but it tends to be higher than normal on New Year's Day.

—Suicide is most common near the beginning of the month and least common near the end of the month.

—It is not unusual for a despondent individual to commit suicide just when he/she had recently seemed to display a noticeable improvement in mood.

Each of these generalizations has been reported by researchers on suicide, some of them many times. While all of these patterns call for additional empirical confirmation or specification, nothing is so badly needed as theory which would help to explain the existing data. In the literature on temporal variations in suicide, instead of systematic attempts to develop and defend explanations, one is more likely to find brief men-

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tions of some explanatory possibility which the author does not find sufficiently compelling actually to endorse. Quite often, authors simply report their findings without so much as a nod in the direction of theory. Surely it is time for an equally high priority to be placed on efforts to construct creative explanatory schemes as on the recounting of new but poorly understood empirical findings.

It may be that progress toward explanation has been impeded by a tendency for researchers to focus too narrowly on a specific temporal variable, as if each one were entirely unique, rather than also considering the more general phenomena of which the individual variables are examples. Of course, it is quite likely that numerous unrelated factors contribute to the empirical patterns cited above. Yet it may also be productive to question the tacit assumption that the seemingly disparate patterns have no common origins at all. If the various temporal fluctuations in suicide are *partly* the expression of the same underlying dynamics, then we have a rare opportunity to illuminate several enigmas with one basic explanatory proposition. What follows is an attempt to suggest such a proposition by exploring the phenomenological implications of temporal cycles for someone in despair.

An Underlying Pattern?

In order to argue that several temporal variables correlate with suicide partly for the same reason, it is necessary to establish that the cyclical patterns tend to have a similar shape. First, Durkheim's partial recognition of this will be discussed. Then, the modern evidence on variations by month, day of the week, holiday, and day of the month will be reviewed in that order.

DURKHEIM'S NEGLECTED INSIGHT

An apparently overlooked feature of Durkheim's *Suicide* ([1897] 1951) is his observation that the correlations of suicide with season, day of the week, and day of the month displayed certain similarities of form and etiology. He began by presenting data which showed that suicide increased from January to June and then declined in the second half of the year. He attributed this to variation in the intensity of social activity. For example, with the arrival of spring, "everything begins to awake; activity is resumed, relations spring up, interchanges increase" (p. 119); hence, suicide rates climb.

He then discussed a French study which classified 6,587 suicides by day of the week on which they occurred. The lowest rates were found on Friday, Saturday, and Sunday.

Finally, in a footnote he stated, "It is noteworthy that this contrast between the first and second parts of the week recurs during the month," citing a study of 4,595 Parisian suicides, of which 38 percent occurred in the first 10 days of the month, 32 percent in the next 10 days, and 30 percent in the last 10 days (p. 119).¹

In short, his review of these temporal data led him to the important generalization that suicide is higher in the first part of "new periods" and lower at the end of them, a configuration which he explained, with a trace of uncharacteristic tentativeness, in the same footnote: "The rhythm of social life seems to reproduce the calendar's divisions; there seems to be renewed activity whenever a new period is entered and a sort of slackening as it draws to an end" (p. 119).

Durkheim's overriding purpose, of course, was to refute all non-social explanations of suicide rates in favor of his sociological ones. This left him with little choice but to relate the temporal cycles in suicide to some cyclical aspect of social interaction. But his effort to use intensity of social life as the explanatory variable is not effective. In the first place, there is little reason to believe that social interaction is more intense in spring than in fall, or during the first third of the month than during the last third. Moreover, why should increased social activity elevate the suicide rate? Although this notion begs for an explanation, he provided none. His subsequent discussions of egoism and anomie contained no reference to temporal variables, and so it remains unclear whether he meant that greater intensity of social life promoted egoistic or anomic suicide, and just how it might do so.² This contrasts sharply with his detailed and confident accounting of the relations between suicide, egoism, anomie, and such variables as religious affiliation, marital status, and economic conditions. It is no wonder that the explanation of temporal correlations is not regarded as one of Durkheim's contributions to our understanding of the social origins of suicide.

It appears that Durkheim found himself in a predicament. The astute seeker of statistical regularities was driven by the data to acknowledge that there was something significant about the beginning and end of temporal cycles, yet the data did not lend themselves well to the theoretical scheme to which he was wedded. Unequipped to offer more than a vague and unsatisfying "explanation" of the underlying pattern, he consigned the admittedly "noteworthy" phenomenon to a footnote and pursued the question of temporal correlations no further. The initial insight was undeveloped by him and apparently unnoticed ever since.

THE RECENT RESEARCH

A great many studies have reported monthly (or seasonal) fluctuations in suicide. A review by Kevan (1980) listed 80 such reports between 1825 and

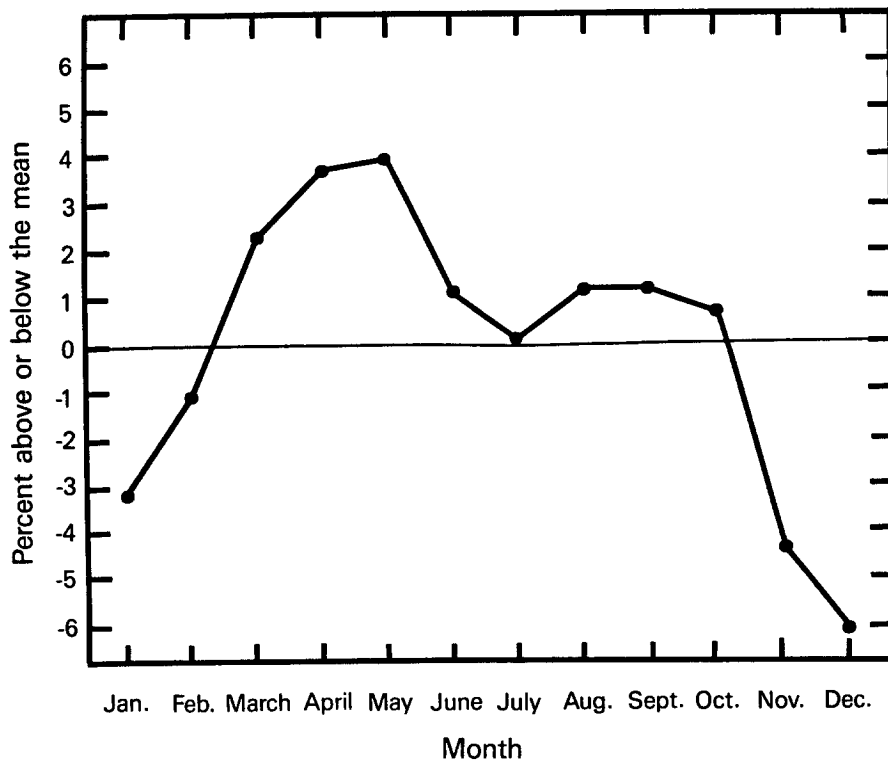


Figure 1. CORRECTED MONTHLY SUICIDES EXPRESSED AS PERCENTAGES ABOVE OR BELOW THE MONTHLY MEAN, UNITED STATES, 1972-78. (CORRECTED FOR NUMBER OF DAYS IN THE MONTH.) (REPRODUCED FROM MACMAHON 1983, p. 745.)

1979. The most reliable information, however, comes from the more recent studies using multi-year data from national populations. These will be given the most weight in this discussion.³

In the United States, the National Center for Health Statistics (NCHS) has collected national suicide statistics by month for several decades. Dublin (1963), Massey (1967), Rogot, Fabsitz & Feinleib (1976), Lester (1979), Bollen (1983), MacMahon (1983), and Warren, Smith & Tyler (1983) have reported NCHS data which together covered virtually all years between 1950 and 1978. Although these authors did not always use the same analytical techniques, the results were quite consistent: suicide peaks in the spring months, especially April and May, and bottoms out in the winter months, especially December (see Figure 1). This is essentially the same result obtained by Barraclough and White (1978) and by Meares, Mendelsohn & Milgrom-Friedman (1981), who used national data from Britain for 1968-72 and 1958-74, respectively. Iga et al. (1978) found that the suicide

rate in Japan between 1968–72 peaked in April (no data on a trough were presented).

As might be predicted, national data from Canada and Finland suggest a somewhat later occurrence of peak and trough.⁴ Kevan (1980) reported a Canadian pattern (1960–73) which included a peak in the months between April and July and a trough between December and February (he was not more specific). Nayha (1982, 1983) found suicide in Finland (1961–76) to be most frequent in May and June and least common in January and February.

Several investigators have noted a second, lesser rise in the fall months (Iga et al. 1978; Lester 1979; MacMahon 1983; Warren et al. 1983). When he analyzed NCHS data controlling for sex, Bollen (1983) found that the fall peak occurred primarily among females. Kevan (1980) cited data from Canada (1925–49) which also showed the secondary fall peak among women only. Meares, Mendelsohn & Milgrom-Friedman (1981) observed a similar phenomenon among British females, and Parker and Walter (1982) discovered it in New South Wales (1971–76).⁵ Nayha (1983) reported a secondary peak in October among Finnish women who were married or widowed, but not among those who were single or divorced.

In short, there appears to be a consistent seasonal pattern in the suicide statistics gathered on national populations. There is also persuasive evidence of variation by day of the week, at least in the U.S. (studies using national data from outside the U.S. are mute on this question). The NCHS data reported by Rogot, Fabsitz & Feinleib (1976), Lester (1979), Bollen (1983), and MacMahon (1983) indicate a clear pattern: suicide peaks on Monday, then generally declines throughout the week to a trough on the weekend, especially on Saturday (see Figure 2).

Another temporal pattern has been reported by Phillips and Liu (1980), involving a dip in suicide on and just before a holiday and a peak immediately after it. These authors examined the seven-day period which includes the holiday, the three days before it, and the three days after it, for six major U.S. holidays (1972–76). With the exception of New Year's Day, which will be discussed below, and Washington's Birthday, which is not experienced by most Americans as a real holiday, they found a pattern which corresponds closely to the day-of-the-week configuration presented in Figure 2, if the holiday is treated as the "weekend," the first day after the holiday as "Monday," and so on. Although Phillips and Liu were apparently unaware of this parallel, it emerges clearly when their data (even with New Year's Day and Washington's Birthday included) are graphed with the holiday placed in the weekend position (see Figure 3).

In addition to the seasonal, day-of-the-week, and holiday variations, another cycle has been reported by MacMahon (1983). She found regular fluctuations in U.S. suicide between 1972–78 by day of the month.

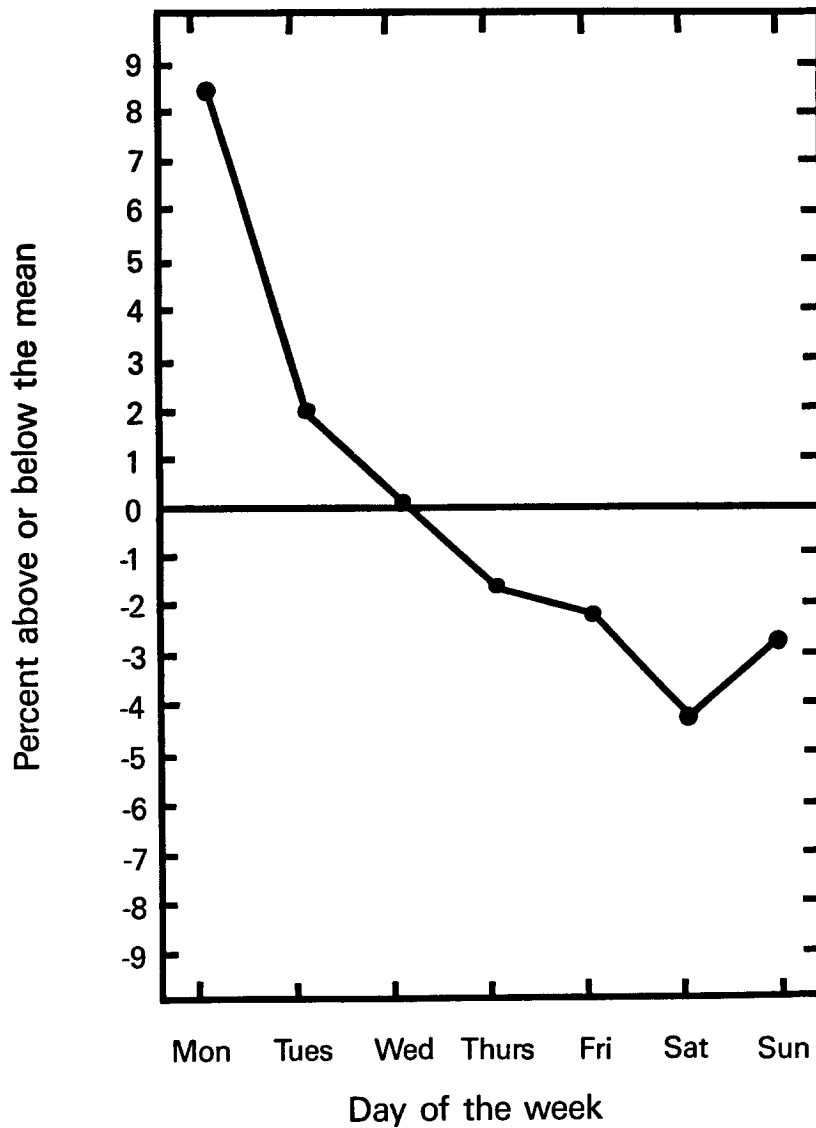


Figure 2. SUICIDES BY DAY OF THE WEEK, EXPRESSED AS PERCENTAGES ABOVE OR BELOW THE DAILY MEAN, UNITED STATES, 1972-78. (ADAPTED FROM MACMAHON 1983, p. 746.)

Specifically, the rate peaked around the fifth of the month, then declined fairly regularly to a trough around the 29th (see Figure 4).

When one compares Figures 1-4, there emerges a rough but unmistakable similarity among them which confirms Durkheim's insight: suicide

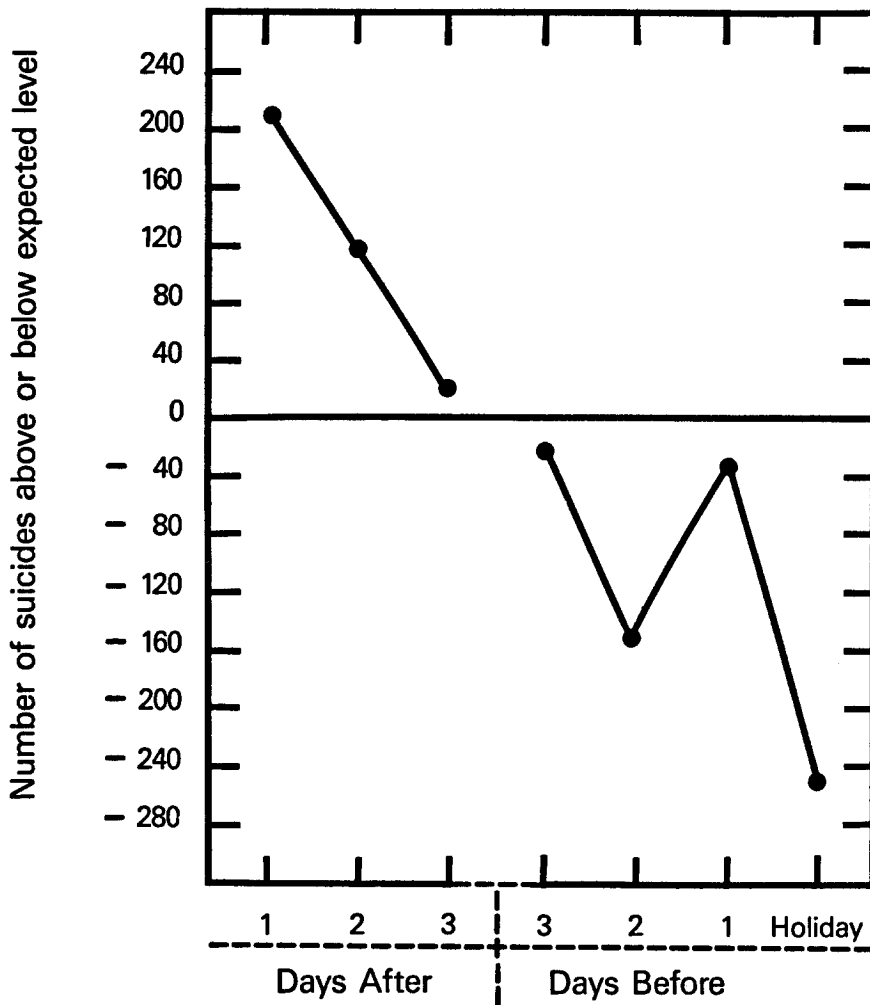


Figure 3. FLUCTUATION OF U.S. SUICIDES BEFORE, ON, AND AFTER MAJOR U.S. HOLIDAYS, 1972-76. (ADAPTED FROM PHILLIPS & LIU 1980, p. 48.)

tends to be highest at or near the beginning of the cycle and lowest at or near the end of the cycle. This seems especially clear with respect to the day of the week, day of the month, and holiday. At first glance, the monthly fluctuation may not seem to fit this generalization, since the beginning of the calendrical cycle (January and February) is a relatively low suicide period. However, as Durkheim indicated, in a *seasonal* sense the new year arrives in the spring. Figure 1 should be viewed with this in mind.⁶

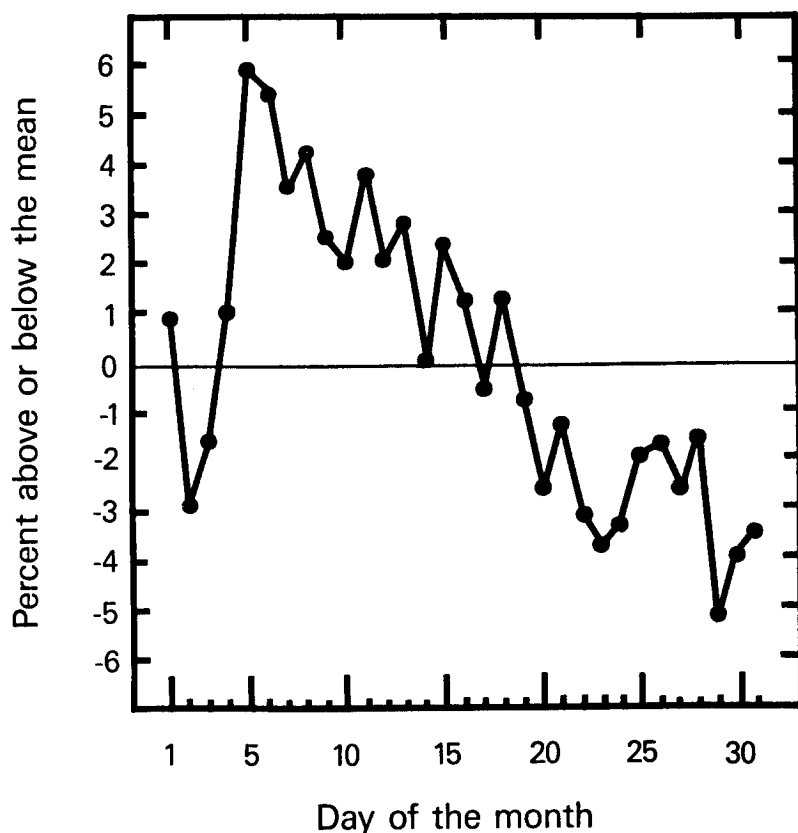


Figure 4. SUICIDES BY DAY OF THE MONTH EXPRESSED AS PERCENTAGES ABOVE OR BELOW THE DAILY MEAN, UNITED STATES, 1972-78. (REPRODUCED FROM MACMAHON 1983, p. 748.)

To be sure, there are some differences between the patterns, most notably the secondary peak in the fall months (which will be addressed below). But it is also true that we are comparing cycles which are subdivided into unequal numbers of units (ranging from seven to thirty-one), and this itself might somewhat reduce the correspondence between the graphs.

Now that we have observed a similarity in the shape of the temporal correlations, what should we make of it? There are two possibilities.

THE INDEPENDENT-EXPLANATIONS HYPOTHESIS

One might argue that there is less here than meets the eye. It is nothing more than coincidence that these several relations happen to display a

comparable structure. The actual causes of the various correlations are diverse and entirely independent of one another.

For example, the seasonal cycle may be due to meteorological factors (see Pokorny 1968 for an overview), such as the effect of light on the pineal gland (Parker & Walter 1982). Another viewpoint attributes the spring peak to "the painful contrast between the suicide's own despair and the resurgence of life about him" (Dublin 1963, p. 56). Perhaps the day-of-the-week pattern results from the blues that people feel at beginning the new work week. The day-of-the-month cycle could stem from the fact that bills become due at the beginning of the month (MacMahon 1983, p. 744). At any rate, the appearance of a common underlying cause is an optical illusion.

Proponents of this hypothesis are faced with the task of offering a satisfying explanation for each of the temporal correlations individually, a challenge which few investigators have been eager to accept. Indeed, given the state of theory in this area, it is not surprising that MacMahon would conclude: "There is no satisfactory explanation for any of these temporal cycles" (1983, p. 744).

THE COMMON-EXPLANATION HYPOTHESIS

This approach contends that these data, coming as they do from different populations, years, and researchers, are unlikely to bear such a close resemblance to one another without at least some common causation. An example of this view would be Durkheim's belief that certain temporal fluctuations originate in variations in intensity of social life. The possibility of a common cause is enhanced if an explanation can be suggested which fits the data, is intuitively plausible, and is derived from well established sociological concepts.⁷

It should be added that the common-explanation approach offers the potential advantage of parsimony compared to the independent-explanations position. Whenever possible, it is more desirable to have a systematic set of propositions than a patchwork of speculations which are more numerous but no more persuasive. "The grand aim of all science . . . is to cover the greatest possible number of empirical facts by logical deduction from the smallest possible number of hypotheses or axioms" (Albert Einstein, quoted in Thomlinson 1965, p. 37).

A Broken-Promise Effect

The position taken here is that the data clearly call for more than a series of cycle-specific explanations. The pursuit of a general explanation can

begin with what is probably the most widely accepted interpretation of a temporal correlation: the view that spring suicide often stems from the contrast between a brightening external environment and a persistent internal gloom.

This theory contains an important insight: the suicidal person's affective state can be adversely influenced by circumstances which tend to promote the aspiration or expectation for feeling better. It is easy to imagine how an event associated with negative emotion could be the "last straw" which pushes a despondent person into suicide. However, it is also true that an event which generally induces positive anticipation may itself cause the suicidal individual's outlook to worsen by virtue of the unfavorable contrast between raised expectancy and stubborn reality.

To understand fully how this can happen, it is helpful to invoke the concept of relative deprivation, that is, the principle that the level of one's subjective well-being depends directly upon other subjective variables: expectations, wishes, aspirations, hopes. The critical point is that a dysphoric mood is the result of the negative discrepancy between how one feels and how one expects (hopes) to feel. If an impending event subtly heightens expectations or aspirations without actually producing real and lasting improvement in the suicidal person's condition, then his/her mood does not necessarily return to its original level but rather to a lower one, due to a more acute sense of relative deprivation. It is as if a promise had been broken. Mood may now be depressed to a point below the individual's suicide threshold, already close at hand. An event which may have minuscule psychological consequences for most people has produced a fatal "broken-promise effect" for some others. The spring, weekends, and holidays are examples of affectively positive events with the potential to promise more than they deliver.

A key piece of empirical support for this reasoning is the trough which immediately precedes the peak in the data. The location of the trough suggests that something is causing an unusual number of suicidal people to desist from taking their lives, apparently in anticipation of something which, in fact, does not occur, leading to a sharp increase in suicide rate. Any theory which attempts to explain these data must offer a plausible account of the linkage between trough and peak.

A consideration of the spring suicide peak, then, suggests the identity of a common causal element in several temporal patterns: a day or period which carries a collective, positive appeal. However, the logic of this explanation does not seem helpful with regard to the day-of-the-month cycle. Nor does it account for the low suicide rates of November and December, a holiday period which, like spring, should raise expectations. This indicates that as a phenomenological analysis, the argument is incomplete. And indeed, there is an additional possibility. The despondent individual, like everyone else, does not experience spring merely as a

time of nicer weather, but also, at a deeper level, as a *beginning*, as the threshold of a new period. This suggests a second means by which a temporal broken-promise effect might arise.

Temporal beginnings are significant because they can stimulate, even if slightly, the feeling of possibility associated with newness. They connote a symbolic break with the immediate past, a fresh start. The chance that something good—or at least something better—may be ahead cannot be ruled out. By implying potential, beginnings, at least in small measure, imply hope.

But why, then, should suicide rates be higher at or near the beginning of a cycle, a time of implicit promise? As the new period approaches, it raises hope in some people who are presently on the edge of suicide. Hence, in this period some potential acts of suicide are discouraged. However, the implied promise associated with the arrival of a new temporal cycle is usually unfulfilled. A great deal of the time, May does not actually yield more than December did, and next week or month will closely resemble last. Thus, the stage is set for a drop in mood. This process helps to explain an important consistency in the data: suicides are less likely to occur before a major temporal threshold than after it. This generalization applies to the beginnings of the week, month, calendar year, seasonal year, and school year, as well as to the important holidays.⁸

Pre-threshold periods do not seem hospitable to suicide. This may clarify the paradoxical pattern of a suicide trough in November and December. It is a commonplace among laypeople and professional counselors alike that “people get depressed around the holidays.” Indeed, the reasoning which seems to explain the spring peak leads to a prediction that the Thanksgiving-through-New Year’s holiday season would be a period of high suicide rates. In fact, though, the monthly rates continue to decline until beginning to ascend in January and February. It seems that something is inducing a delay in suicides. One possibility is the fact that Christmas comes near the end of the November-December period, thus continuing to sustain anticipation in suicidal individuals throughout most of this time. But in addition, December is the end of the calendrical cycle. The approaching new year offers the implicit promise of a new beginning, and in this pre-threshold period some suicides are averted.⁹

In sum, a temporal broken-promise effect can develop from the elevated sense of expectancy implicitly occasioned by either a positively valued event (e.g., spring) or the threshold of a new cycle per se. Of course, these processes can occur simultaneously, as they do in the day-of-the-week cycle. The beginning of the week follows an end (Saturday and Sunday) which, like a holiday, has positive connotations for most people. Thus, an initial contrast effect can occur during the weekend, as Saturday and Sunday fail the suicidal individual. This would account for the fact that the suicide rate begins to climb on Sunday. And it means that many of

Monday's suicides are lagged effects of the weekend, while others are probably precipitated by the dynamics associated with the beginning of the new weekly cycle itself.

It is important to emphasize that the subjective significance of temporal phenomena for suicide involves apprehensions of social reality which are usually subarticulate. The implicit link between temporal events and hopefulness is part of the taken-for-granted experience of reality. People sense these things more than "think" them. The implied hopefulness rarely is so strong as to enter awareness.

However, to affect emotions or behavior, there need not be a strong or conscious connection. It is certainly true that most individuals do not derive important amounts of hopefulness and optimism from routine temporal events. Hence, the phenomenological implications of temporal rhythms are ordinarily quite negligible. But someone whose emotional state is one of intense despair may be sufficiently sensitive to the weak implication of hope in the approach of a collectively significant temporal threshold to be affected by it. Even a small amount of semiconscious hopefulness might be meaningful to an otherwise hopeless person.

If temporal rhythms pose some danger to a badly despondent person, so too would any other condition which elevates his/her hopes and expectations without actually providing the basis for sustaining those emotions. This is probably what occurs in many cases of despondent people who kill themselves despite the impression of those around them that they had just begun to improve psychologically. The customary interpretation of this phenomenon is that an extremely depressed individual "is unlikely to be suicidal because he lacks even the energy to carry out the act" (Maris 1984, p. 48). When for some reason such a person becomes less depressed, presumably he/she acquires the necessary energy. The theory outlined here suggests an alternative explanation: despondent individuals whose spirits have been lifted for some reason are vulnerable to a broken-promise effect, and some will fall victim to it.

These ideas can be extended to another puzzle. Phillips and Liu (1980) and Bollen (1983) reported that suicide in the U.S. (1972-76) tended to be lower than normal on national holidays, with the distinct exception of New Year's Day, which had an unusually high suicide rate. Rogot, Fabnitz & Feinleib (1976) also observed an abnormally high rate for New Year's Day only (1962-66). None of these authors explained this anomaly. Why should New Year's Day show a different relationship with suicide than the other holidays? One factor may be the unusually high level of alcohol consumption associated with this holiday. But perhaps it is also no coincidence that New Year's Day is the holiday which most explicitly marks a transition between an old period and a new one. It is also experienced as "longer" than any other day, since its very inception at 12:00 AM is accen-

tuated by great public attention. Moreover, this attention consists largely of joyous optimism, the hallmark of which is a national party atmosphere. The result is a day which differs from other holidays in the degree to which it provides (a) the implicit promise of a new beginning, (b) a spirit of collective optimism and revelry to contrast with one's personal unhappiness, and (c) the length of time available for some suicidal persons to arrive at the conclusion that promises are not being kept.

Finally, we can return to the matter of the secondary peak in autumn, which is the major discrepancy between the temporal patterns depicted in Figures 1-4. In attempting to interpret this phenomenon, it is of great value to learn that it seems to occur more often among females. If this rise in suicide is related to the broken-promise effect, then possibly there is something about the fall which creates a greater sense of beginning in women than in men. Perhaps we need to look no further than the fact that late summer and early fall mark the onset of the new school year. This could make the transitional nature of this time of year especially prominent for mothers. Obviously, this implies that we would expect more evidence of the fall suicide peak in mothers than in other adult categories.

Data which bear directly on this do not exist at the present time. However, there is an intriguing hint in the research by Nayha (1983) in Finland. When he controlled for marital status, he found that single women and divorced women showed no sign of the autumn rise, as married and widowed women did. Now these data must be regarded as tentative because of the small numbers involved. This is especially true of the divorced and widowed categories, which contained so few cases (302 and 572) that their patterns cannot be taken too seriously until replicated. The single and married categories, while also small (1,164 and 1,596), are at least somewhat more reliable. And they display the configuration one would predict if it is true that women with children are especially sensitive to the temporal transition associated with fall.¹⁰ At any rate, this possibility clearly deserves future scrutiny.

Complications

Also requiring additional investigation are some further demographic differentials in temporal patterns of suicide reported by Bollen (1983) and Phillips (1984). Bollen found gender, age, and racial disparities in the day-of-the-week, monthly, and holiday data. For example, while female suicides peaked on Monday, they were lowest at mid-week, rather than on the weekend as was true of males. Phillips discovered that these temporal

variables explained only 4 percent of the variance in teenage suicides, compared to 34 percent of the adult variance.

These results demonstrate that the picture is more complicated than the analysis to this point has indicated. Apparently the strength of a temporal broken-promise effect varies across demographic categories. It is not surprising—obviously this is one of many, possibly conflicting, suicide-related influences in people's lives—and could occur for numerous reasons. For example, it may be that the day-of-the-week pattern depicted in Figure 2 is most likely to apply to people who have full-time jobs outside the home; hence, it appears more often in males.

A broken-promise effect is no more likely to have a socially uniform impact than is any other independent variable. Describing and explaining the demographic variations in that impact is a fitting topic for future research. For example, it would be very desirable to examine the temporal suicide patterns of categories defined by several background variables simultaneously, for example, white, married, males under 30 years of age, etc. This degree of subclassification would help us isolate the reasons for the varying phenomenological repercussions of temporal events.

Conclusions

It may be useful briefly to place the temporal correlates of suicide in a larger conceptual context. Many of the variables which influence suicide may be distinguished, at least analytically, into three major types.¹¹ First are those conditions or events which induce the psychological misery that can make the prospect of death seem easier to bear than the prospect of life. Examples might be failure in performance of important roles (e.g., occupational), loss of a cherished role or relationship, physical pain or disability, and a sharp reduction of social reputability.

Second, there are those factors which provide insulation from suicide by supplying the individual with social and ideological attachments to life. These Durkheimian variables represent a kind of "immune system" which sustains individuals against the negative forces which potentially can make living seem more difficult than dying. Some examples of insulators are stable marriages and homes, memberships in cohesive groups, a sense of community, and commitment to collective norms and values (e.g., religious).

Whether one becomes suicidal is a function of the relative strengths of these negative and positive forces. A suicide may result from an increment in the negative category and/or a decrement in the positive one. For individuals who are on the threshold of suicide, however, a third type of variable may also become influential: those which can precipitate the act

by nudging the suicidal person over the edge and which do not directly involve changes in the other two categories. Examples of precipitators would include drug or alcohol binges, the imitation effect apparently at work when one suicide stimulates others, and the broken-promise effect. The latter may be associated with temporal cycles or with any other condition which elevates a sense of expectancy. Because precipitators can be the proximate cause of suicide, the empirical and theoretical examination of this type of variable is particularly important from a practical standpoint.

Notes

1. He remarked that the disproportion is greater than it appears, due to the fact that in several months the last "10 days" actually include 11 days.
2. Perhaps he intended to imply that increased social activity in warmer weather and at the beginning of the week and month produced a rise in anomic suicides due to a destabilization of norms which can result from "abrupt transitions" (p. 252). This is an opaque argument, but to suggest that greater social interchange somehow increases egoism seems even less tenable. One would expect the contrary: the more intense the social life, the lower the (egoistic) suicide rate, since ". . . the state of integration of a social aggregate . . . is more unified and powerful the more active and constant is the intercourse among its members" (p. 202).
3. Relatively recent investigations of seasonal variations using local data include Maris (1969), Cerbus (1970), Zung and Green (1974), Wenz (1977), and Sanborn and Sanborn (1978).
4. This is consistent with Spiers' (1972) conclusion that the spring suicide peak in five large American cities occurred later in those with lower average January temperatures.
5. In New South Wales, May is a fall month and November is in the Spring. Female suicide showed nearly equal peaks in both months, the latter being somewhat larger.
6. Another temporal variable, date of birth, has been reported to correlate with suicide in a manner which closely conforms to the pattern displayed in Figures 1-4. Kunz (1978) classified 311 suicides in "a western state" for 1974 and 1975 according to the quarter of the year in which they occurred, with the first three months after the suicide's birthday being the first quarter, the next three months being the second quarter, and so on. He found that 43 percent of the suicides occurred in the first quarter, 31 percent in the second, 23 percent in the third, and 4 percent in the fourth. However, Lester (1986) was unable to replicate these results.
7. It is worth stressing that to suggest that several correlations have a common cause is not to exclude the possibility (indeed, probability) of numerous independent causes as well. It would be fatuous to propose a monocausal theory of temporal variations in suicide.
8. One exception to this pattern seems to occur among teenagers with regard to the beginning of summer vacation. Using NCHS data from 1977, Phillips (1984) found that the teenage suicide rate was slightly higher in May than in June. This raises an instructive point. When a temporal threshold culminates a period which contains its own significant suicidogenic forces for a certain group, for example, the school year for teens, then the suicide rate may be higher prior to the threshold than after it, depending upon the relative suicidogenic strengths of the temporal and nontemporal variables involved.
9. This alone would predict that January and February would display high suicide rates as the aftermath of the trough in November and December and as the beginning of the calendrical cycle. And in fact, their rates do start to increase, though perhaps not as much as might be expected. But these months are also the end of the seasonal cycle. The impending spring

is by now creating another anticipation of a positively valued event, probably dampening the suicide potential of this period.

10. He also reported that widowed and divorced males between 15–44 years of age showed high suicide rates in the fall, but the small number of cases (62 and 379) makes questionable the significance of this finding. It is a pattern which has not been reported elsewhere and Nayha has no explanation for it.

11. In fact, it would be difficult or impossible to place certain variables in one category only.

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