Moving Against the World: Life-Course Patterns of Explosive Children

Avshalom Caspi
Harvard University

Daryl J. Bem
Cornell University

Glen H. Elder, Jr.
Department of Sociology, University of North Carolina at Chapel Hill

Do ill-tempered children become ill-tempered adults? What are the life-course consequences of such an explosive interactional style? What processes can account for the persistence of maladaptive behavior across time and circumstance? To answer these questions, this study used data from the Berkeley Guidance Study (Macfarlane, Allen, & Honzik, 1954) to identify children with a pattern of temper tantrums in late childhood (ages 8-10) and to trace the continuities and consequences of this behavioral style across the subsequent 30 years of their lives. Life-course continuities in this behavioral style were found for both sexes. Men with histories of childhood tantrums experienced downward occupational mobility, erratic work lives, and were likely to divorce. Women with such histories married men with lower occupational status, were likely to divorce, and became ill-tempered mothers. It is proposed that maladaptive behaviors are sustained through the progressive accumulation of their own consequences (cumulative continuity) and by evoking maintaining responses from others during reciprocal social interaction (interactional continuity).

The need to delay gratification, control impulses, and modulate emotional expression is the earliest and most ubiquitous demand that society places on the developing child, and success at many life tasks depends critically on the individual's mastery of such ego control. In this article, we looked back at the life histories of children who were failing to achieve such mastery, who, at age 10, were still reacting to childhood frustration and adult authority with explosive temper tantrums. We sought to discover whether such ill-tempered children become ill-tempered adults and, if they do, what the causes and consequences of such continuity are.

The continuity of maladaptive behavior has long been recognized as a challenge to psychological theory. If behavior is largely sustained by its consequences, then adaptive behaviors should show continuity almost by definition. (Research confirms that it is the adaptive or "ego resilient" individual whose personality displays the strongest continuity across the life course [Block, 1971].) But why should maladaptive behaviors persist? What are the processes that sustain them across time and circumstance?

These are ancient and enduring questions, but we believe that the recent emphasis in both personality and developmental psychology on the interaction between the person and the environment can provide a fresh perspective on them. In particular, we should like to focus on two of the many meanings of interaction that abound in the contemporary literature of interactional psychology (e.g., Magnusson & Endler, 1977). One of these meanings refers to interactions between dispositions of the person and characteristics of the environment. We are interested here in the special case in which the individual's dispositions systematically select him or her into particular environments, environments that, in turn, might reinforce and sustain those dispositions (e.g., Scarr & McCartney, 1983; Wachtel, 1977b). For example, when extraverts preferentially seek out social situations they thereby select themselves into environments that further nourish and sustain their sociability.

Maladaptive behaviors can similarly select individuals into environments, albeit more coercively. The ill-tempered boy who drops out of school may thereby limit his future career opportunities and select himself into frustrating life circumstances that further evoke a pattern of striking out explosively against the world. His maladaptive behaviors increasingly channel him into environments that perpetuate those behaviors; they are sustained by the progressive accumulation of their own consequences. We shall call continuity of this kind cumulative continuity.

A second meaning of interaction refers to the reciprocal, dynamic transaction between the person and the environment: The person acts, the environment reacts, and the person reacts back. This process provides another potential mechanism for sustaining maladaptive behaviors. For example, Patterson's work with aggressive boys has shown in elegant detail how family interactions can create and sustain destructive and aversive patterns of behavior (Patterson, 1982). By extension, we suggest that a child whose temper tantrums coerce others into provid-

---

This research was supported in part by a grant from the National Institute of Mental Health (MH-34172). Glen H. Elder, Jr., was supported by a Senior Scientist fellowship from the National Institute of Mental Health (MH-00557).

We are indebted to the Institute of Human Development, University of California, Berkeley, for permission to use archival data from the Berkeley Guidance Study, and to Ricky Exell, Marjorie J. Honzik, and Guy Swanson for their assistance. Thanks to Steven Cornelius for helpful comments on initial drafts of this manuscript.

Correspondence concerning this article should be addressed to Avshalom Caspi, Department of Psychology, William James Hall, Harvard University, Cambridge, Massachusetts 02138.
lying short-term payoffs in the immediate situation may thereby learn a behavioral style that continues to "work" in similar ways in later years. The immediate reinforcement short-circuits the learning of more controlled interactional styles that might have greater adaptability in the long run.

In this analysis, we thus concur with Wachtel (1977a) and others before him (e.g., Cottrell, 1969; Sullivan, 1953) who have argued that it is not so much a personality trait or a psychoanalytic-like residue of early childhood that is maintained across time, but an interactional style that evokes reciprocal, maintaining responses from others. Accordingly, we shall call continuity of this kind interactional continuity.

In general, then, we propose that long-term continuities of personality through the life course are to be found in interactional styles that are sustained by the progressive accumulation of their own consequences over time (cumulative continuity) or by their contemporary consequences in reciprocal social interaction (interactional continuity) or by both.

This kind of interactional analysis also suggests the kinds of situations that will later evoke particular behavioral styles. For example, the explosive, undercontrolled interactional style that appears as temper tantrums in childhood may later manifest itself as ill-tempered, undercontrolled irritability when the individual again confronts frustration or controlling authority (e.g., in school, the armed services, or low-level jobs). In addition, such a style may manifest itself again in life situations that require frequent negotiation of interpersonal conflicts (e.g., in marriage or child rearing).

Accordingly, we have organized our subjects' life-course trajectories in terms of achievement patterns (in education, military, and work settings), marital careers, and parenting. These phenotypically diverse situations are all characterized by demands that may elicit previously established relational styles. Each requires the individual to delay gratification, control impulses, or modulate emotional expression in ways he or she could not manage in late childhood.

Method

Subjects

Data for this study were obtained from the archives of the Institute of Human Development (IHD) at the University of California, Berkeley. The subjects are members of the Berkeley Guidance Study (Eichorn, 1981), a study initiated in 1928 with every third birth in the city of Berkeley over a period of 18 months. The original sample included an intensively studied group of 113 subjects and a less intensively studied group of 101 subjects matched on social and economic characteristics. Both samples are combined in our study.

Most of the subjects came from white, Protestant, native-born families. Slightly more than 60% were born into middle-class homes. Of the 112 girls in the sample, a maximum of 95 have been followed up into adulthood. There are no significant differences between those who were followed up and those who were not followed up in childhood temper tantrums (t < 1). Respondents did, however, score significantly higher than nonrespondents on adolescent measures of intelligence (t = 3.84, p < .001) and social class at the time of their births (t = 2.99, p < .01).

Temper Tantrums

Childhood data on the Berkeley subjects were obtained from clinical interviews with their mothers and subsequently organized into ratings on 5-point behavior scales (see Macfarlane, 1938; Macfarlane, Allen, & Honzik, 1954). We have used two of these scales in our study: severity of temper tantrums and frequency of temper tantrums. Severe tantrums involved "biting, kicking, striking, and throwing things" as well as verbal explosions such as "swearing, screaming, and shouting accompanied by marked emotional reactions . . . anger completely dominated behavior." Tantrum frequency ranged from one per month to several times per day. For the analyses presented here, we have combined these two ratings into a single 5-point scale averaged across ages 8, 9, and 10 (1936-1938), designating any child with a score of 3 or above as having had a history of childhood temper tantrums. In all, 38% of the boys and 29% of the girls were so classified.

Adult Assessment

The Berkeley subjects were interviewed when they were about 30 years of age (1960) and again when they were about 40 (1968-1971). These interviews provide a detailed record of each subject's education, work, marriage, and parenthood. In addition, at least two professional clinicians read each interview from the 1960 follow-up and provided a Q-sort description of the subject using the 100-item California Q-Set (Block, 1971). Additional information on marital and parenting roles was obtained from interviews conducted in 1970 with subjects' spouses and any of their children between the ages of 14 and 19.

Results and Discussion

Male Subjects

Do ill-tempered boys become ill-tempered men? The answer is yes. Correlations between the temper-tantrum scores in late childhood and the Q-sort ratings of judges 20 years later reveal that ill-tempered boys are later described as significantly more undercontrolled (r = .45, p < .001), irritable (r = .27, p < .05), and moody (r = .29, p < .05) than their even-tempered peers. Other Q-sort items reflect some of the occupational correlates described later: These men are also described as significantly less ambitious (r = - .37, p < .05), productive (r = -.38, p < .01), and dependable (r = -.38, p < .01) than their even-tempered peers.

Adult achievement. The Berkeley men reached the age of majority during the late 1940s, a period of significant social change in American life. A new middle class was emerging from a new white-collar workplace in which interpersonal skills often replaced technical or clerical skills as a requirement for success and advancement in institutional roles (Mills, 1951): "The child who is to be trained for the intricate human relations of the bureaucracy . . . must learn to be a 'nice guy'—affable, unthreatening, responsible, competent, adaptive" (Miller & Swanson, 1958, pp. 202-203). An explosive, undercontrolled style would seem particularly ill-suited to this new world and might well have had the most severe implications for boys from mid-
characters in the image as a text document.
As Table 4 shows, there is a significant effect of childhood tantrums, F(1,70) = 16.97, p < .001; for job status, F(1,70) = 3.67, p = .06; for Tantrums X Job Status, F(1,70) = 4.47, p < .05.

Parallel analyses of the components of this composite index yield similar results. Men with a history of childhood tantrums were less likely to experience more unemployment, to hold more jobs, to change employers more often, and to suffer a greater number of breaks in their line of work than their even-tempered peers (ps < .05). Moreover, they are less satisfied with their careers, r = -.37, p < .05. Of particular pertinence to our conceptual analysis is the finding that these men are dissatisfied with the nature of supervision on the job, r = -.28, p < .05. These two indices of dissatisfaction are nonsignificantly higher for men in low-status jobs, r = -.49, p < .05, and r = -.39, p < .10, respectively.

Mechanisms of continuity. In the introduction we proposed that continuities in maladaptive behaviors across the life course may rest upon two mechanisms. First, the cumulative consequences of such behaviors can increasingly channel the individual into frustrating environments that provoke further maladaptive responding (cumulative continuity). Second, maladaptive behaviors may reflect an interactional style carried through life that evokes reciprocal, maintaining responses from others in social interaction (interactional continuity). Using the findings already reported on men with middle-class origins, the path analysis in Figure 1 reveals evidence for both kinds of continuity.

Cumulative continuity is nicely illustrated by the effect of childhood tantrums on occupational status at mid-life: A history of childhood tantrums is as good a predictor of educational attainment as IQ ($\beta_{\text{tantrums}} = -.34; \beta_Q = .32$; the correlation between childhood tantrums and IQ is -.09). In turn, educational attainment strongly predicts occupational status ($\beta = .59$). There is, however, no direct effect of temper tantrums on occupational status ($\beta = .10$). In other words, middle-class boys with a history of childhood tantrums arrive at lower occupational status at mid-life because they truncated their formal education earlier, not because they continue to carry an ill-tempered interactional style. Further cumulative continuity is seen in the subsequent link between occupational status and an erratic work life ($\beta = -.35$).

Interactional continuity is implied by the strong direct link between tantrums and an erratic work life ($\beta = .45$). Men with a childhood history of tantrums appear to carry this interactional style with them through life, where it gets them into trouble in the world of work, particularly, as we saw earlier, in low-status jobs.

Marriage and parenthood. A history of childhood tantrums also affects the domestic sphere. Men with such a history were significantly less likely to have an intact first marriage at mid-life (age: 40) by better than a 2:1 ratio: Almost half (46.4%) of these men had divorced, whereas only 22.2% of the men without such a history had done so ($r_s = -.25, p = .02$).

Information on parenting was obtained from the 1970 interviews with both spouses and children. Spouses rated the overall quality of the subject's parenting on a 5-point scale. From the children's interviews, an index of ill-tempered parenting was calculated by combining two items: One summarized the child's perception of how well-tempered the parent was, ranging from exceptionally good tempered to usually bad tempered. The other summarized the child's perception of the parent's self-control, ranging from no evidence of parental loss of control to parent shows widespread loss of control—evidence of screaming or crying in front of child, physical abuse (see Elder, Caspi, & Downey, 1986).

Neither the spouse ($r = .14$) nor the child index ($r = .08$) reveals a significant direct effect of childhood tantrums on parenting behavior for the male subjects. As we have seen, however, nearly half of the men with a history of childhood tantrums were no longer in their first marriages at the time of these interviews. It may be that their parenting is not harsh or ill-tempered, but remote or virtually nonexistent. However, to the extent that men with a history of childhood tantrums did become ill-tempered fathers, this relation is expressed through their work problems. A path analysis revealed this indirect link: A history of childhood tantrums was significantly related to an erratic work life ($\beta = .35, p < .05$), which was, in turn, significantly related to the spouses' report of inadequate parenting ($\beta = .36, p < .05$). (These path coefficients are corrected for social class and educational level.) Once again, we see evidence of cumulative continuity.

Female Subjects

Do ill-tempered girls become ill-tempered women? If they do, it is not apparent from the interviews. None of the relevant Q-sort items in adulthood correlates with a history of childhood temper tantrums. The subjects' husbands and children, however, think otherwise.
Adult achievement. Analyses of women's achievement patterns (education, occupational attainment, worklives) do not show the significant connections between childhood temper tantrums and life disorganization that we found for men. Although a large majority of the women were employed at some point in their lives, there was little variation in their occupational status compared with the men. Over two-thirds of the women who were employed held clerical, sales, or technical jobs. A third stopped working following marriage or the birth of their first child, others returned to work after an extended period of homemaking, and others alternated between employment and homemaking. Thus, the key elements of adult achievement assessed for men were less applicable to the women in this historical period.

Although it is not possible to examine the direct effects of childhood temper tantrums on women's achievements, it is possible to trace the implications of this behavioral style on women's status achievements through their husbands' occupational status. This is shown in Table 5 as a function of the women's own history of childhood tantrums and class of origin. As we see, there is both the expected effect of class origins, $F(1, 80) = 23.15, p < .0001$, and also a significant effect of childhood tantrums, $F(1, 80) = 5.76, p < .05$. Women with a history of childhood tantrums fared less well than their even-tempered peers in the marriage market. (Regression analysis reveals that the effect of tantrums remains significant when controlled for the woman's class origins, her educational attainment, and her adolescent IQ.) A similar analysis performed on the husbands' occupational status later in mid-life yields virtually identical results. The effect of class origins remains significant, $F(1, 71) = 11.96, p < .001$, as does the effect of childhood tantrums, $F(1, 71) = 4.11, p < .05$.

The downward mobility of ill-tempered girls is further confirmed by a comparison of their husbands' occupational status at mid-life with that of the girls' fathers at a comparable age (1938–1939). We find that 40% of women with childhood tantrums married down compared with only 24% of their even-tempered peers, $r_s = .16, p = .09$.

Marriage and parenthood. As we have seen, insufficient self-control in childhood consigned women to marriages "below their station." It also contributed to the deterioration of these relationships. Over a quarter (26.1%) of the women with a history of tantrums had divorced by mid-life compared with only 12.1% of women without such a history ($r_s = -.17, p = .06$).

Table 5
Occupational Status of Female Subjects' Husbands at Time of Marriage by Childhood Temper Tantrums and Social Class Origins

<table>
<thead>
<tr>
<th>Temper tantrum rating</th>
<th>Class origin</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Middle class</td>
<td>Working class</td>
<td>$M$</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>5.30</td>
<td>4.00</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>4.88</td>
<td>2.43</td>
<td>4.17</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>5.32</td>
<td>3.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. 1 = unskilled employee; 7 = higher executive. For tantrums, $F(1, 80) = 5.76, p < .05$; for class, $F(1, 80) = 23.15, p < .001$; and for Class X Tantrums, $F(1, 79) = 1.35, p = .25$. 

Figure 1. The effect of childhood temper tantrums on occupational attainment and erratic work lives of men from middle-class origins. (IQ [Wechsler-Bellevue, age 18] is included as an exogenous variable in estimating this model. The correlation between IQ and temper tantrums is $- .09$. $t_p < .10; * p < .05; ** p < .01; *** p < .001$. )
Moreover, in those cases where the marital relationship had not dissolved by mid-life, husbands of women with a history of childhood tantrums report more marital conflicts, $t(40) = 1.90$, $p = .07$, and were more dissatisfied with their marriages than husbands of women without such a history, $t(40) = 1.85$, $p = .06$, and were more dissatisfied with their marriages than husbands of women without such a history, $t(40) = 1.85$, $p = .06$, and were more dissatisfied with their marriages than husbands of women without such a history, $t(40) = 1.85$, $p = .06$. As adults, women with a history of childhood tantrums became ill-tempered parents as well. The two parenting indexes derived from the 1970 interviews show that they are perceived by both their husbands and their children as less adequate, more ill-tempered mothers than women with no history of childhood tantrums (both $rs = .34$, $ps < .05$). Indeed, in our data a history of childhood tantrums is the best predictor of women's ill-tempered parenting. Thus, ill-tempered girls do become ill-tempered women.

General Discussion

We have sought in this study to discover whether ill-tempered children become ill-tempered adults. They do. Children with a stable pattern of temper tantrums in late childhood experience difficulties across many life tasks. The early tendency toward explosive, undercontrolled behavior was evoked in new roles and settings, especially those involving subordination (in educational, military, and work settings) and in situations that required negotiating interpersonal conflicts (such as marriage and parenting). Ill-tempered boys experienced downward mobility and problems in the adult domain most central to men’s lives, work. Ill-tempered girls experienced comparable downward mobility through marriage and did poorly in the role traditionally most salient to women’s lives, parenting. Ill-tempered children of both sexes were likely to divorce and to have conflict-laden marriages.

The specific findings from this study must, of course, be viewed in cultural and historical perspective. For example, recent sex role changes in our society will probably cause the life-course consequences of childhood temper tantrums to become more similar for men and women in the future. Particular developmental patterns depend not only on the individual’s pattern of approach and response (what Bronson, 1966, has aptly termed central orientations), but also on the structure of the environment in any given historical period. But, although social change may produce change in particular manifestations of a disposition in the life course, we can still hope to abstract the general principles of personality functioning that produce these manifestations.

Thus, we have suggested not only that early personality can shape the life course, but that long-term continuities of personality are to be found in interactional styles that are sustained both by the progressive accumulation of their own consequences (cumulative continuity) and by evoking maintaining responses from others during reciprocal social interaction (interactional continuity).

References


Received March 12, 1986
Revision received July 24, 1986