A developmental account is given of the role of self-continuity in insulating adolescents against the risks of suicide.

Self-Continuity in Suicidal and Nonsuicidal Adolescents

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Adolescents attempt suicide at a rate that is wildly in excess of that reported for any other age group (Diekstra and Moritz, 1987; Hanton, 1986; Schneidman, 1985). This chapter is all about finding a developmental means of accounting for this alarming epidemiological fact. The novel idea that I hope to convey here is that this dramatic spiking in the incidence of self-destructive behaviors is linked to the routine difficulties such young persons encounter in working out age-appropriate ways of vouchsafing their own continuity through time. Extending on a set of findings obtained in collaboration with my colleague Lorraine Ball (Ball and Chandler, 1989), I introduce new evidence demonstrating that even temporary loss of the narrative thread of one's personal persistence—a stitch easily dropped in the course of first knitting up one's identity—can leave some adolescents especially vulnerable to a range of self-destructive impulses, against which others remain better insulated.

The task of deciphering the meaning of this proposed link between suicide and the problem of diachronic continuity requires first getting clearer about what is ordinarily meant by the notion of self-continuity, and what is generally known about how young persons routinely come to understand the possibility of personal stability when faced with the inevitability of personal change. This chapter is an introduction to these often unfamiliar matters. What justifies this excursion into matters so seemingly remote from the immediate problem of adolescent suicide is that without some such detour into developmental theory, there seems to be little hope of ever explaining the strongly age-graded character of self-destructive acts. After devoting the front half of this chapter to a discussion of these normative matters, I present pertinent evidence of how failures in such self-continuity warranting practices link up to the actual suicidal behaviors of a group of psychiatrically hospitalized adolescents.

Self-Continuity and Its Developmental Vicissitudes

Contemporary philosophers (for example, Harré, 1979; MacIntyre, 1977; Perry, 1976; Rorty, 1976; Wiggins, 1971) and psychological theorists from James (1892) to Erikson (1968) and beyond (for example, Damon and Hart, 1982; Gergen and Gergen, 1983; Guardo and Bohan, 1971; Peevers, 1987) have generally agreed that the concept of self or personhood necessarily presupposes the satisfaction of two constitutive conditions. The first, given considerable prominence in contemporary developmental research on the identity formation process (for example, Damon and Hart, 1982; Guardo and Bohan, 1971; Peevers, 1987), is that in order to qualify as a self, all of the various component parts that together make up the mosaic of one's simultaneously present attributes must be seen to constitute a single synchronically *unified* whole. That is, it has come to be seen as constitutive of what we ordinarily mean by self- or personhood that there be followable reasons as to why the collection of the simultaneously present attributes that are seen to go into making up a single individual all actually cohere or fit together as attributes of one and the same person. It is for such reasons that when the component parts of any self-system somehow fail such tests of coherence, and utterly refuse to be integrated, that we feel obligated to begin talking of indwelling spirits, or multiple personalities, or otherwise imagine that more than one self somehow coexists inside the skin of what would in some other context be taken to be a single unified individual.

The second, much less studied, but no less constitutive feature of bona fide selves is that despite being subjected to the effects of exceptionless change, they must, nevertheless, somehow justify all their various temporally distinct manifestations as alternative expressions of one and the same individual. It is this historical or diachronic aspect of selves that must be conserved somehow across transformations, lest they cease to qualify as persons at all. The importance attached to this necessary aspect of self-continuity arises because it is precisely this quality of persistence that serves to make each of us responsible for our own pasts and invested in our own as yet unrealized futures. Theologians long ago christened the spiritual counterpart of such diachronic self-continuity "numerical identity" in recognition of the fact that, like selves, souls too must depend for their efficacy on being counted only once (Chandler, Boyes, Ball, and Hala, 1986). Without some such accounting scheme Saint Peter, for example, whose job is presumably to keep track of just how many distinct souls are afoot in the world, would obviously have hell to pay. Despite the linchpin role of self-continuity in holding together the successive time slices that together make up the archipelago of the historical self, however, research psychologists have only recently begun to pay the notion of self-continuity any serious heed.

From the point of view of putative owners of selves, the key problem with the necessity of self-continuity lies in the obligation to seek out adequate explanatory means or "warranting practices" that acknowledge those evident

personal changes that occur and, at the same time, to render these different ways of being either structurally equivalent or otherwise functionally interchangeable. A self that lacked this quality of persistence, and instead simply winked in and out of existence with every momentary change, would be unrecognizable as an instance of what selves are generally understood to be. Continuity, then, represents a necessary condition over which the term *self* is reasonably allowed to operate (Shotter, 1984), for the reason that a self that is not taken by others to be somehow abiding would be fundamentally nonsensical (Luckman, 1976). Consequentially, if we could not manage to see how our pasts or likely futures are our own, then we would fail in a fundamental way to live up to one of the primary constitutive conditions of selfhood and would cease to be distinct persons in our own and others' eyes.

Although, as Lifton (1974) pointed out, the various argumentative grounds capable of justifying this necessary sense of self-continuity are not commonly part of conscious awareness, they nevertheless underlie and support the tone and quality of one's self-awareness and often do become explicitly available to awareness during crisis points and times of transition (Barclay and Smith, 1990). Consciously available or not, our sense of well-being nevertheless depends on the defensible conviction that we do in fact extend forward and backward in time. At least, that has been the germ of Erikson's (1968) and our own insistence that a sense of diachronic continuity is fundamental to what it means to have or be a self.

If each of us is under an obligation to somehow work out viable means of successfully warranting our beliefs in our own personal persistence, then there is every reason to suppose that as individuals develop, the cognitive complexity or formal adequacy of their self-continuity warranting practices will increase apace. At least, these several expectations served to set in motion my own protracted search, carried out in collaboration with various colleagues (Ball and Chandler, 1989; Chandler and Ball, 1989; Chandler, Boyes, Ball, and Hala, 1986), for possible age-graded changes in the ways that normal young persons actually think about their own personal continuity.

So far, more than one hundred children and adolescents have been extensively interviewed and tested regarding these matters. Our efforts to date have led us to distinguish a total of five distinctive ways in which these subjects have talked about their own persistence through time. Although these continuity-warranting strategies are not seen to structure themselves into the same kind of "strong" stagelike sequences said to characterize the course of operative and moral reasoning development (Kohlberg and Armon, 1984), they nevertheless can be rough-sorted in terms of the adequacy with which they successfully champion personal sameness without also ignoring personal change. Moreover, collateral empirical evidence suggests that increasingly older and more cognitively mature subjects also prefer the more formally adequate of these several continuity-warranting practices. In the following sections, I list and describe these different ways of reasoning about personal sameness, some of which I broadly characterize as *structural* and others as *functional* continuity warrants.

A Typology of Alternative Self-Continuity Warrants

The five alternative ways in which young persons so far have been noted to reason in favor of their own continuous identities are further distinguishable in terms of whether they rest on arguments that are basically structural or functional in character. My use of the term *structural continuity warrants* relies on Barclay and Smith's (1990) "entity" notion of self and has as the common feature the fact that they are meant to vouchsafe one's persistence in the face of change by drawing attention to the presence of one or more structural details of the self that are presumed to somehow stand apart from time, and to go on being identical to themselves despite acknowledged changes in other quarters. Three self-continuity warrants of this structural sort have been identified. These are referred to in this chapter as "simple inclusion," "typological," and "essentialist" warranting strategies.

Functional continuity warrants avoid all such suspect claims about the supposed architectural features of the self that are somehow imagined to be immune to the workings of time. Instead, arguments of this caliber rest their case on claims for various continuity-engendering relational forms that stitch together, into one functional unit, "time slices" of the self. By such lights, an individual inevitably going through various personal changes is nevertheless held to be selfsame if a case can be made that the person one once was and has since become are functionally related. Two such functional arguments have been identified. These different functional approaches roughly parallel the familiar cause-reason distinction and are referred to here as "foundational" and "narrative" warranting strategies.

Each of these five distinct continuity-warranting strategies is based on a different conception of the structure or architecture of the self, and on different assumptions regarding the sorts of changes to which these self-structures are subject (see Table 4.1).

Table 4.1. Typology of Possible Self-Continuity Warrants

Level	*Warranting Strategy*	*Grounds for Continuity*	*Characterization of the Self*	*Interpretation of Change*
1	Simple inclusion	Structural	Figural collection mosaic of parts	Change is discounted
2	Typological	Structural	Multifaceted typological structure	Change is denied
3	Essentialist	Structural	Unchanging genotypical core	Change is trivialized
4	Foundational	Relational or functional	Effect or logical implication of a determining past	Determinate change is rationalized
5	Narrative	Relational or functional	Autobiography or narrative center of gravity	Change triggers a hermeneutic rereading of the past

What will become obvious as the discussion proceeds here is that the earlier ways of thinking about selfhood are less adequate to the task of warranting self-continuity than are their successors. However, as I later make clear, it is not so much a running behind developmental schedule with reference to these continuity warrants that characterizes suicidal adolescents as it is that these young persons have somehow fallen completely through the cracks while attempting to navigate between the levels of the various self-warranting practices.

Simple Inclusion Arguments. Claims about personal continuity that fall under the heading of "simple inclusion arguments" all begin with a characterization of the self as a mere mosaic of juxtaposed parts, and a conception of personal change that simply allows new elements to be tacked on, or old parts sloughed off, without consideration for their places within the larger whole. Given such an add-on conception of selfhood and the suffixed changes that it allows, all such bids in favor of self-continuity must necessarily rest on the hope that after each successive landslide of personal change, there will remain at least one atomic fact about one's former identity that can be pointed to as the basis for one's persistence through time. Resting one's case for personal persistence on the fact that, despite other changes, at least one's name, for example, or fingerprints, or street address still remains the same is typical of continuity warrants of this caliber. While better than no sense of personal persistence at all, continuity arguments of this quite primitive sort suffer from the limitation that the whole of one's identity amounts to no more than an arbitrary collage of whatever residual aspects of the self have thus far escaped the ravages of time..

Typological Arguments. The second in this series of increasingly complex continuity-warranting strategies rejects as inadequate all simpler claims that the self is no more than some transient collection of arbitrary parts and substitutes in their place a somewhat better organized typological surface structure, the separate attributes of which are worn much like the fixed facets of some empty polyhedronic shape. An important part of what is accomplished by viewing selves in this way is that what would otherwise necessarily count as evidence of personal change can now be redescribed as merely presentational, as but one of the facets of a self-structure now being showcased at the expense of others that are temporarily thrown into eclipse. Persons who see themselves as having a devil on one shoulder and an angel on the other, both of which alternatively thrust themselves forward from time to time, provide examples of such typological views of self-structure. Change, in this still primitive conception of the self, amounts to little more than a spatial rearrangement of parts (Shotter, 1984) and is thus effectively denied. As such, the continuity-warranting practices that grow out of such typological conceptions of self and change manage to "solve" the problem of personal persistence, but only by writing off real changes as matters of mere appearance.

Essentialist Arguments. Essentialist arguments basically hinge on a genotype-phenotype distinction and are the first in this sequence of progressively more complex structural self-continuity warranting practices to succeed in justifying personal sameness without turning a blind eye to the real changes

occurring in the self. Persons who follow this approach tend to characterize the self as a structure with a certain depth, the deeper layers of which are taken to be more central to, and defining of, the true essence of one's unique nature. Given this hierarchical arrangement, change, or at least changes of a certain presumably superficial sort, can be written off easily as mere phenotypical variations while, beneath this changing surface structure, there remains a subterranean core of essential sameness, a rock of persistent selfhood capable of paraphrasing itself in endless superficial variations.

Among the things that are free to vary across different versions of essentialist accounting schemes is a depth-of-processing factor that expresses the relative degree of abstraction at which more peripheral differences are seen to be joined. Toward the shallow end of this continuum are, for example, modest trait concepts such as "artistic" or "athletic," which can serve as nodes that join lower-bound dimensions of possible difference such as interest in the visual as opposed to performing arts, or individual versus team sports. The problem with such essentialist attributes of this middle range is that, while more stable than the transient phenotypical specialties they subsume, these second-order attributes also often change. Many people, for example, only start out being athletic or artistic but are not easily describable in those terms as the years take their toll.

Nearer the opposite pole of this depth-of-processing dimension are more abstract notions such as "personality," or the theological idea of an immaterial, featureless, and immutable "soul." Here, there is danger that some situational bad bounce will cause one to lose his or her immortal soul or suffer some fundamental personality change; but the high cost paid for such insulation is that while personalities, souls, and the like are long on generality, they are short on interpersonal currency or connectedness to the mundane concerns of daily life. Despite wholesale change, I may say, for example, that I persist at being myself because I possess an immutable soul. But this can be dismissed as mere handwaving. In short, essentialist arguments function reliably only when composed at a rather top-lofty level of abstraction that does little real practical work. Clearly, such essentialist claims work best in homogeneous and static societies where everyone agrees about the essential stuff of which persons are thought to be made, but they quickly falter in settings of rapid social change. As Lifton (1974) pointed out, various kinds of symptoms of psychological distress, including suicide, occur more frequently when societies do not manage to share with their younger members those symbols of continuity that allow for "experiential transcendence" and entry into what he called "mythic time." It is also worth mentioning that all essentialist continuity warrants, and in fact all "entity" or structural notions of personal persistence, tend, as Barclay and Smith (1990) observed, to decouple the self from the activities of the whole being, and to promote various unworkable dualistic assumptions about indwelling spirits or other "ghosts in the machine."

Foundational and Narrative Arguments. The functional approaches to the problem of personal persistence that make up the fourth and fifth levels in this proposed typology differ from the arguments just outlined in that they abandon as unrealistic all false hopes that there might exist certain persistent attributes of the self that somehow stand outside of the workings of time. In the place of "shared parts" arguments, advocates of these functional approaches substitute a set of alternative problem-solving strategies. According to these strategies, earlier and later versions of the self exhibit diachronic continuity in that these successive time slices are understood to stand in a certain functional relation to one another that cements them in time.

The key difference that divides foundational and narrative continuity warrants is the order in which those who employ them attempt to move between past and present. Foundational arguments build such relations by reading events from the past to the present, claiming that one persists at being one's own self because the present is the *effect* of which one's ancestral past is the antecedent *cause*. Here, for example, past and present are stitched together because of "the terrible fall I took from the high chair" or "my formative prep-school experience," or, more broadly, because once "two roads diverged in a yellow wood and I took the one less traveled by, and that made all the difference" (Frost, 1955, p. 116). The drawback to all such foundational arguments is their deterministic or fatalistic character. By these lights, the past becomes an inescapable force that succeeds at guaranteeing a certain brand of personal continuity only at the expense of emptying the future of all of its potential for surprise, and denying the possibility of real personal reform.

By contrast, narrative arguments, the second type of functional continuity warrants, attempt a more interpretive form of historiography by reading the relation between past and present from back to front. That is, self-history is seen as a storytelling or narrative enterprise that undertakes to reread the past in light of the present in a struggle to give one's life interpretive meaning (Harré, 1979; Ricoeur, 1983). By these lights, remembered selves must be constantly reedited (Barclay and Smith, 1990); an identity is not a static thing but a configuring of personal events into a historical unity (Polkinghorne, 1988); and self-continuity is the ability to tell a believable story about one's self—a story that possesses what Dennett (1978) called a "narrative center of gravity." Those who successfully employ such narrative approaches succeed not by finding ways of showing successive time slices of one and the same person but rather by altogether avoiding this freeze-frame way of looking at selfhood. From this view, the entire life narrative constitutes the self—a story that must be formed and reformed as the events of one's life unfold.

As implied by their ordered presentation, the five levels of the foregoing typology of possible self-continuity warranting practices are envisaged as forming a loose developmental sequence. While the order in which these different means of explaining oneself are acquired does not conform to some iron law, they are viewed as ordered within a "soft" developmental sequence (Kohlberg

and Armon, 1984). What is claimed, then, is that arguments further along in this proposed sequence seriously engage problems overlooked at earlier levels and thus represent formally more adequate solutions to the problem of personal continuity. Simple inclusion arguments, for example, are seen as necessarily immature because they turn a blind eye to any change and stake all claims for personal persistence on isolated attributes, no matter how remote these may be from matters of personal relevance. Typological arguments, by contrast, acknowledge change but ultimately discount it as purely presentational. Essentialist warrants successfully hierchicalize the various attributes of the self and, while fully recognizing the possibility of genuine change, nevertheless trivialize it by pointing to "higher" or "deeper" parts that are seen to provide for the genotypical sameness beneath all such phenotypical variation. Foundational warrants, by contrast, successfully slip the leash on all suspect claims about changeless parts, but only at the expense of a deadening fatalism.

Beyond all reasons why some strategies for warranting self-continuity can be viewed as better, or at least more complex, than others, there is also empirical evidence to suggest that movement through this series is both age-graded and related to other common metrics of cognitive maturity. For example, young adolescents (that is, those under age fifteen) have been shown to rely almost exclusively on simple inclusion and typological structural arguments, whereas those sixteen years or older seem to primarily employ essentialist and functional arguments (Chandler, Boyes, Ball, and Hala, 1986). More generally, reliable correlations on the order of .45 have been observed between chronological age and movement through this five-level sequence. Similarly, there is other evidence (Boyes, 1987) that essentialist arguments, which rely on distinctions between the more and less central features of the self, and Levels 4 and 5 functional arguments are routinely available only to those young persons who also demonstrate proficiency on standard measures of formal operational reasoning.

More generally, these empirical research efforts have demonstrated that questions about personal sameness are live issues in the minds of young persons, that adolescents are quick to discuss their views regarding these matters in some detail, and that what they have to say tends to fit comfortably and without remainder into the five-level typology just outlined. Finally, and most pertinent to the discussion that follows, all of the "normal" children and adolescents so far tested have invariably had at their disposal one or another of these more or less adequate ways of vouchsafing their own personal persistence through time.

Getting from Failure in Self-Continuity to Suicide

The account of self-continuity development just outlined could be correct in all of its particulars without simultaneously making any real contribution whatsoever to our understanding of suicidal behavior. What follows now is an attempt to prove the opposite case by examining how a loss of diachronic con-

tinuity might actually pave the way toward such life-threatening assaults on the self. I go about this by providing a preliminary list of reasons why young persons who are unable to find the continuous thread in their own identities might be especially inclined to respond to difficulties or disappointments with attempts on their own lives. Having made these conceptual connections, I then turn attention to a quick survey of other collateral lines of evidence indicating that adolescents in general, and suicidal adolescents in particular, regularly suffer some breakdown in their ability to see themselves as temporarily connected to their own determining pasts and likely futures. The additional business of *empirically* demonstrating such connections in groups of suicidal and nonsuicidal adolescents is addressed in the final section of this chapter.

As with growth processes more generally, a number of things can conceivably go wrong with one's efforts to move toward a mature understanding of the grounds on which continuous or numerical identity must necessarily rest. The most obvious of these is to simply get older without also getting better or more mature at justifying one's persistent identity. That is, one can fall short of sustaining a successful conception of self-continuity simply by failing to make timely developmental progress in updating one's thinking about personal sameness in the face of change. It does not seem particularly odd, for example, to hear six- or seven-year-olds defend their convictions about persistent personal sameness by pressing the point that they have continued to live in the same houses or are still called by the same names. Similar statements from the mouths of young adults, however, obviously seem inappropriately childlike.

While fixations or developmental delays of the foregoing sort may set important restrictions on the kinds of personal change that can be countenanced without confusion, such age-inappropriate approaches to the problem of self-continuity merely tax, rather than repeal, the necessity of those constitutive diachronic connections on which all coherent conceptions of selfhood depend. That is, a sense of self-continuity defended even in childish ways is, nevertheless, still some sort of committed view about one's persistence in time.

Qualitative growth models of the elaborate, discontinuous sort promoted here—models that characterize the path of identity development as progressing through an ordered sequence of increasingly adequate problem-solving strategies—suggest the possibility of still other ways in which continuity-warranting practices can go wrong. One such dangerous prospect is that developmentally earlier ways of solving the self-continuity problem will be discarded as immature before some more adequate alternative is fully in place. That is, growth models, such as that proposed here, leave open the possibility of pathologies arising from awkward or failed transitions from one ontogenetic level to the next. Even during the best of such transitional moments, when both of one's conceptual feet are momentarily off the ground, the self is in some jeopardy of temporarily losing its rootedness in its own past and its grounding in its own prospective future. For such persons, I argue, the usual hedges that are commonly thrown up against momentary self-destructive impulses are dramatically lowered.

At one time or another, most people, it seems, have imagined taking their own lives, often for what later appear to be especially trivial reasons (Rubenstein and others, 1988; Ross, 1985). While nearly everyone has thought about escaping their problems by killing themselves, few ever act on such inclinations, primarily, it must be supposed, because the persons who would be hurt or lost will be them—wonderful them. Viewed in these terms, what needs explaining is not so much the impulse to act in self-destructive ways as the occasional absence of those restraints that lead most of us to abandon such passing suicidal thoughts in favor of a future into which we project our own continued existence. Hence, any serious impediment to seeing oneself as having such a personal future or temporally continuous self would work to rob one of his or her best defenses against suicidal thoughts. From this vantage, suicide attempts that are linked to a loss of personal continuity seem more like senseless drive-by shootings or eerily detached high-altitude bombing missions than actual assaults on a future self in which there is some ongoing personal stake.

To the extent that at least some part of the foregoing account proves correct, it goes a considerable distance toward answering two fundamental questions. The first, already partially addressed above, asks how it is that anyone, at any developmental station, could actually manage to override the otherwise universal impulse to preserve and sustain one's own life (Linehan, Goodstein, Nielsen, and Chiles, 1983). The second is directly concerned with adolescents and asks for reasons that might explain the anomalously high rate of suicide attempts in this age group. That is, while the foregoing remarks were meant to make suicide seem more of a live option, at least for those whose identity problems have already cost them all connection to their own futures, no case has yet been made as to why adolescents demonstrate such losses of self-continuity more often than do persons in other age groups.

The basis for an answer to this puzzle lies in the fact that between the middle school years and young adulthood, the typical young persons whom we have tested commonly work their way through as many as four of five different self-continuity warranting strategies. During each of these transition periods, the prospect exists that these young persons will abandon older and less adequate claims about personal continuity well before anything that could qualify as a more mature alternative is yet in view. In short, if hazards to the self are most often met on the cusp of a transition from one self-continuity warranting strategy to the next, then adolescents who are forever coming to view their sense of self in some new way will thus distinguish themselves as a particularly high-risk group.

During such more or less extended transitional moments, one's sense of temporal connectedness can be easily lost. Without a diachronic framework linking one's past, present, and future, such persons have no more reason to be committed to their own future well-being than they are to the fortunes of a complete stranger. If, during such periods of selflessness, negative circumstances conspire to make one's life of the moment seem intolerable, then sui-

cide becomes a live option lacking in all of its usual serious and sobering personal consequences.

Such a view has a number of decided advantages over competing accounts. By making suicidality the result of a disrupted transitional *state*, rather than some fixed personality *trait*, the transient and nonrecurrent nature of such self-destructive behaviors are better accounted for. By linking suicidal acts to moments of developmental change, reasons are provided as to why such self-destructive behaviors most often occur during periods of developmental transition (puberty, age of retirement, beginning senility, and so on). And, most important, by making provision for the fact that the victim of one's own suicidal acts is, under these special circumstances, experienced as a person numerically distinct from one's self, a way is found of circumventing those natural inhibitions that otherwise operate against acts of self-harm.

Comparison of Continuity Claims of Suicidal and Nonsuicidal Adolescents

In comparison to the more roundabout tasks of explicating the notion of self-continuity and of explaining why failures to maintain such a sense of personal persistence might be conducive to suicide, the job of laying out available evidence concerning how suicidal and nonsuicidal persons differently approach the task of providing reasons for their own continuity is relatively straightforward. Some of the procedural details and early findings of the research program on which I report here have already been presented elsewhere (Ball and Chandler, 1989; Chandler and Ball, 1989; Chandler, Boyes, Ball, and Hala, 1986). Notwithstanding a certain necessary overlap with these earlier reports, three general sorts of things must be considered here. First, some brief account is needed of the particular methods employed for getting at what both suicidal and nonsuicidal adolescents actually believe about their own self-continuity. Next, sufficient normative data must be presented for an adequate understanding of the usual self-continuity warranting practices of ordinary adolescents, and how these change with age and other markers of cognitive development. Finally, new evidence must be presented that complements and extends earlier findings (Ball and Chandler, 1989) that suicidal adolescents are wholly unlike their nonsuicidal age-mates in that they appear to have lost all sense of their own personal persistence through time.

Before going on, however, it is useful to briefly preview the message arising from these research efforts. The interesting point is this: Normal adolescents, even psychiatrically hospitalized but not suicidal adolescents, while differing in the evident maturity or formal complexity of their beliefs about self-continuity, nevertheless succeed in reasoning their way to the conclusion that, despite real changes, they are persistently themselves. That is, despite other important individual differences, including self-reports of depressive affect, nonsuicidal youth of every stripe seem able to successfully count their

own pasts and as yet unrealized futures as their own. In sharp contrast, better than four out of every five of the suicidal subjects so far tested completely lack any effective means of warranting their own self-continuity, and so stand stripped of all connections to their pasts or investments in their own future well-being. What is accomplished by this all but complete segregation of suicidal from nonsuicidal subjects is not only the practical promise of an eventual diagnostic instrument powerful enough to overcome the actuarial obstacles associated with the generally low base rate of suicide, but also, and more important, a conceptually coherent means for understanding the high incidence of attempted suicides among adolescents. In a research environment sometimes reduced to the seemingly circular demonstration that suicidal individuals regularly feel hopeless and depressed, there is enough that appears new here to justify a closer look at the specifics of these methods and results.

Measuring the Presence or Absence of Various Self-Continuity Warranting Practices. As described earlier, the issue of one's own continuous or numerical identity is not ordinarily the sort of matter about which one consciously deliberates. Consequently, some care must be devoted to the job of finding just the right procedural means for bringing out peoples' best thoughts on these usually implicit matters. What was eventually hit upon as a method for directing subjects to these otherwise background considerations was a structured interview that begins by asking about the continuity or lack of continuity in the biographies of various fictional characters chosen from among the literary classics. The kernel idea here is that "character development," as it is commonly understood, amounts to a set of literary devices employed by authors as a way of guaranteeing a certain followable continuity in the lives of storied persons. By pressing for explanations as to how certain familiar fictional characters went on being themselves despite often dramatic changes, we created opportunities for easing subjects into discussions of their own well-guarded and otherwise often inaccessible thoughts about the grounds for their own personal continuity.

The suicidal and nonsuicidal adolescent subjects were first given "Classic Comic Book" versions of Victor Hugo's *Les Miserables* and Charles Dickens's *A Christmas Carol*, and then they were asked to discuss ways in which Jean Valjean and Ebenezer Scrooge were alike and different from themselves at the beginning and end of these stories. After agreeing that both of these stories were about unfolding events in the lives of what they took to be one and the same numerically identical person, they were pressed for detailed explanations of what they understood to be the basis for their strong beliefs in the self-continuity of these story characters. All of these efforts were prodromal to the positing of a parallel set of questions about their own lives, in which subjects were first asked for past and present descriptions of themselves, and then for reasons for believing that they too were continuous, numerically identical persons (for further details regarding these assessment procedures, see Ball and Chandler, 1989).

Almost all of the ordinary and psychiatrically hospitalized adolescents so far tested with these procedures have found the issues at hand to be matters worthy of discussion, and typically they have gone on to offer lengthy replies to questions about their own self-continuity warranting practices. Verbatim transcripts of these accounts have proved to be highly scoreable in terms of the typology of different continuity warrants detailed earlier, and pairs of blind raters generally have been in close agreement as to how such protocols ought to be coded. Finally, and most pertinent to the purposes of this chapter, adolescent subjects have been observed not only to employ each of the five continuity-warranting strategies discussed but also to sometimes throw up their hands in failed attempts to find any personally acceptable means of judging themselves or others as truly continuous in the face of change.

Clues About the Normative Course Followed in Achieving a Mature Sense of Self-Continuity. Data from the approximately one hundred nonhospitalized adolescents between the ages of twelve and eighteen interviewed thus far permit the drawing of a few general conclusions about the usual course of self-continuity development. One of these is that while individual adolescents have been observed to employ each of the five warranting strategies described, simple inclusion (level 1) warrants were generally issued by only the youngest, and narrative (level 5) warrants were employed by only a few of the oldest and most mature of the subjects. The bulk of these typical twelve- to eighteen-year-olds tended to rely instead on typological (level 2), essentialist (level 3), and foundational (level 4) arguments, with progressively older subjects showing a preference for the more complex of these problem-solving strategies. The age-graded nature of these data is reflected in a positive correlation of .45 between age and the maturity of usual warranting practices.

A further set of findings that cross-classify self-continuity warranting practices with Piagetian levels of operativity support the related view that there is a certain predictable relationship between the ways in which young persons think about matters of self-continuity and the ways in which they undertake to solve various less personal cognitive problems. What these data generally suggest is that only adolescents scored as formal operational were also able to make use of essentialist (level 3), foundational (level 4), or narrative (level 5) solutions to the problem of personal sameness in the face of change.

Self-Continuity Warranting Practices of Suicidal and Nonsuicidal Adolescents. An earlier study (Ball and Chandler, 1989) constituted a test of the key expectation that suicidal adolescents would evidence a fundamental disruption in their ability to see themselves as continuous with their own pasts and future selves. This study began with an attempted three-way comparison between thirty suicidal and nonsuicidal psychiatrically hospitalized adolescents and a matched group of their nonhospitalized age-mates. It quickly proved impossible to successfully identify psychiatrically hospitalized adolescents whose medical records were altogether free of references to implicit or explicit threats of suicide. Consequently, a coding system was introduced for rating

each subject's medical records in terms of the evident degree of suicidal risk. These data were consequently collapsed to create a "low-risk" and a "high-risk" group. This classification scheme took into account a variety of factors, including suicidal ideation and the recency, number, and degree of lethality of previous suicide attempts. In the end, however, classification in the high-risk group effectively proved to coincide with having been placed on "active suicide precautions" during some part of the then-current period of hospitalization. By contrast, the low-risk group was made up only of persons who were not known to have made such "serious" suicide attempts.

The key finding of this earlier study was that whereas subjects in the low-risk group and their nonhospitalized controls were all found to make use of some more or less mature self-continuity warranting strategy, three out of every four of the high-risk group wholly lacked any means of seeing themselves as connected to their own pasts and futures. In addition, the two high-risk subjects who proved to be exceptions to this general rule were altogether unlike their low-risk counterparts, who had been observed to employ only the most immature of warranting practices. These two "outliers" were found to have especially mature ideas about their own personal persistence (that is, levels 4 and 5), but they were also characterized by various life circumstances that made their own acknowledged future prospects especially bleak. In short, adolescents could be suicidal without also demonstrating problems in self-continuity, but the opposite case did not hold. That is, the combined effect of the several tendencies evident within this earlier data set was to create a picture of self-continuity problems as essentially unique markers of suicidal behavior. It is noteworthy that various clinically based ratings of depression and the responses of these subjects to Beck's Hopelessness Scale failed to significantly differentiate these high- and low-risk groups.

In the interim, from the time that the protocols originally reported by Ball and Chandler (1989) were collected, a dozen new clinical cases and an equal number of control cases have been added to this accumulating data set. Among the new hospitalized subjects, five were coded as high risk and seven as low risk. In keeping with the pattern set by their high-risk counterparts in the earlier study, none of these new highly suicidal subjects evidenced any working mechanisms for warranting self-continuity through time. Similarly, while all but one of the new low-risk hospitalized subjects were again found to possess some method of warranting their own continuity, in keeping with the earlier findings, all of these were of the less-complex simple inclusion (level 1) and typological (level 2) variety. Finally, the twelve new control cases evenly distributed themselves, as did those described by Ball and Chandler (1989), with somewhat more than half employing either essentialist (level 3), foundational (level 4), or narrative (level 5) warranting strategies. Again, no nonhospitalized subject responded in a way that failed to find an acceptable means of warranting self-continuity.

Table 4.2 combines these new cases with those previously reported by Ball and Chandler (1989). As can be seen, more than 80 percent of the high-risk

Table 4.2. Type of Continuity Warrant by Suicidal Status

	Type of Warrant		
Suicidal Status	*None*	*Simple Inclusion or Typological*	*Essentialist or Functional*
High risk	14 (.82)	1 (.06)	2 (.12)
Low risk	3 (.13)	18 (.78)	2 (.09)
Control	0	16 (.40)	25 (.60)

Note: Table figures are *N*'s, with cell percentages in parentheses; total $N = 81$, high-risk $N = 17$, low-risk $N = 23$, control $N = 41$.

subjects so far tested wholly lacked any means of warranting their own self-continuity, whereas this was true for 13 percent of the low-risk hospitalized subjects and none of the nonhospitalized controls.

This evidence, old and new, is taken as a strong demonstration of the theoretical and practical promise of the present attempt to understand the anomalously high rate of suicide attempts by adolescents as a partial consequence of the difficulties such young persons commonly experience in searching out some basis for their own self-continuity or numerical identity. Should future research continue to support this conclusion, we will have come a crucial distance toward better understanding the strong relation between suicide attempts and age. Perhaps more important, these results also point the way to certain interventions that might help young persons see their way through difficult transitions en route toward a more mature sense of diachronic self-continuity.

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