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Learned Optimism in Children

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We live in an "age of melancholy" (1). Our children succumb to depression at progressively younger ages and at progressively higher rates. Scientific inquiry over the last two decades has identified several cognitive and behavioral deficits implicated in the etiology of childhood depression and, of these, pessimistic explanatory style is perhaps the most researched. Within the last decade a handful of researchers have begun work on empirical validation of protocols designed to redress faulty thinking in depressed children.

This chapter examines a depression prevention program for children developed at the University of Pennsylvania. In this chapter we focus on two related cognitive-behavioral risk factors for depression in children; learned helplessness and pessimistic explanatory style. First, we briefly profile childhood depression. Second, we outline the nature of learned helplessness and pessimism in children. Third, we offer two conceptualizations of learned optimism. Narrowly defined, learned optimism is the skill of reattributing one's pessimistic explanations to more optimistic causes. More broadly formulated, it is a set of skills that promotes cognitive flexibility and resiliency in children. Within this framework we describe our program, the Penn Optimism Program, which aims to "inoculate" children against depression with the skills of learned optimism.

Childhood Depression

The lifetime prevalence of major depression in the United States has increased dramatically in the last two generations (2). This is in part due to decreases in the mean age of onset observed over the same time period (3).

Current estimates indicate that almost 10% of children experience clinical depression before the age of 14, and up to 20% of adolescents have a major depressive episode before the end of their high school years (4, 5).

In spite of sound epidemiological evidence indicating increased risk for children, the development and validation of effective treatments for child and adolescent depression have lagged behind the adult research. Two historical factors have contributed to this. Only recently have clinicians and researchers acknowledged that children can be clinically depressed (6), and that child depression is phenomenologically similar to the adult disorder (7). Furthermore, prior to the 1970s, the existing psychotherapeutic interventions for adult depression were predominately psychoanalytic in orientation. These therapies were considered inappropriate for children and young adolescents, who, it was argued, were yet to complete their psychosexual development.

The advent of cognitive therapy for depression paved the way for new treatments of childhood depression (8, 9). Three lines of research converged to indicate that cognitive techniques were germane to the treatment of depression in children. First, cognitive therapies are demonstrably effective in treating adult depression (10). Second, as proposed by cognitive theorists, the efficacy of the therapy is mediated by change in the patient's maladaptive thoughts (11). Third, depressive children tend to make the same cognitive distortions associated with the adult disorder, and these maladaptive styles of thinking have been causally implicated in the development of depression in children and adolescents (12–15). Specifically, children whose thinking style is pessimistic are significantly more likely to fail and become depressed than their optimistic peers.

Helplessness and Pessimism

A hallmark feature of depression is the individual's perceived lack of control over her world and her future; a sense of helplessness that leads to hopelessness (16). A seminal animal model of uncontrollability was developed in the 1960s by Martin Seligman and his colleagues (17, 18). As graduate students in an animal learning laboratory, they conducted a series of trials in which dogs in two experimental conditions were administered noninjurious electric shocks. Dogs in the first condition were able to turn off the shock with a simple lever push. The animals in the second condition were unable to escape the shocks. They were experimentally "yoked" with those in the first condition to ensure equivalent amounts of electric shock across condition, but they had no lever and no control.

Some twenty-four hours later, all of the dogs were put through a second learning paradigm. They were placed in a shuttlebox—a small box divided in two by a low barrier. When the floor of one side of the box was electrified, the dogs in the lever condition learned, within two or three trials, to escape across the barrier. The dogs who had no control in the first experiment

never attempted escape. They overgeneralized learning from a situation in which they clearly did not have control, to one in which they truly did. They had learned to be helpless.

The "learned helplessness" model was readily extended to human behavior. When people are subjected to uncontrollable noise, for example, fully two-thirds fail to switch off highly preventable noise in a subsequent phase of the experiment (19). However, not everyone becomes helpless in the wake of an uncontrollable, aversive event. Revision of the theory was required to account for the resilient third. The reformulated model integrated helplessness with the cognitive variable of explanatory style (20). By so doing, learned helplessness was modified from a theory of stimulus-operant-response to one of stimulus-interpretation-response.

We are predisposed to analyze and interpret the events that befall us in life (21). We attribute them to cause, and we imbue them with meaning for ourselves and our future. This seems particularly true of negative events, perhaps because the threats they pose are more salient to survival than the boon provided by positive events. And it is as true of preadolescent children as it is of adults. When a child argues with a school friend, to what does she attribute the disagreement? Does she put it down to the recent divorce of her friend's parents, or does she instead believe "my friend's a jerk"? Does she think "all friendships have their ups and downs," or does she say to herself "I'm just no good with people?"

If we analyze these very different explanations, we see they vary across three dimensions. First, some will believe that the argument is all their fault ("I'm so irritable"; internal), while others attribute it to the friend or to circumstances ("she's a jerk" or "she's upset over her parents' divorce"; external). Second, some will attribute the argument to an enduring cause ("I don't have what it takes to be a good friend"; stable), while others will see the cause as short-lived ("all friendships go through ups and downs"; unstable). Third, some believe that the cause of the argument undermines almost everything they do ("I'm just not good with people"; global), while others will confine the operation of that cause to a relatively narrow domain ("I don't deal well with people as upset as she"; specific). Pessimists tend to explain negative events in terms of internal, stable, and global causes, and attribute positive events to external, unstable, and specific causes. Conversely, optimists tend to explain negative events as due to external, unstable, and specific causes, while ascribing positive outcomes to internal, stable, and global attributes.

In the reformulation, emphasis shifted from uncontrollable aversive events to the *perceived* uncontrollability of aversive events. Perception of control is mapped onto the three dimensions of explanatory style. One's own behavior is generally more amenable to control than that of another. Given that we want adversity to end and will exert whatever control we have to end it, those negative events perceived as uncontrollable will also be seen as stable over time. So, internal and unstable attributions typically denote high levels of controllability. For example, imagine your child ex-

plains the argument with her friend in the following way: "we argued because I was cranky, and I was cranky because I stayed up too late watching TV last night." It should be relatively easy for the child to change her TV viewing so that crankiness rarely interferes in her social world again. External-stable explanations indicate low controllability, because to gain control over them one must effect another's disposition or an environmental constant (e.g., stop the friend from being a jerk, or cause her parents to reconcile). Attributions to internal-stable or external-unstable causes usually represent a middle level of control (e.g., "I'm not good with sad people," "she's in a bad mood"). Global attributions indicate loss of control—that the cause of the problem cannot be contained. In essence, the more pessimistic the attribution, the less the degree of perceived control.

Optimism and pessimism are best conceptualized as poles on a continuum. We tend to reflexively explain negative events at a habitual level of pessimism, which can be measured with a quick and easy pencil and paper test (22). Furthermore, in the absence of active intervention, our degree of pessimism remains constant across the lifespan (23). For these reasons our degree of optimism-pessimism is referred to as an "explanatory *style*." The adult literature demonstrates that pessimists are at elevated risk for compromised performance in sports (24), reduced productivity in the workplace (25), academic failure (26), depressed mood (27), and even death from coronary heart disease (28).

Pessimism in children is measured using the Children's Attributional Style Questionnaire (CASQ), developed for ages 8 to 14 (29). The CASQ consists of 48 forced-choice items, in which the child is presented with a hypothetical positive or negative event and asked to choose between two possible causes. On each item, two of the dimensions are held constant across the two explanations and the third is varied. For example, respondents are presented with "a good friend tells you that he hates you" and must choose between "my friend was in a bad mood that day" and "I wasn't nice to my friend that day." These attributions are both relatively unstable and specific, but the former is external and the latter internal. Sixteen items are designed to tap each of the three dimensions. Internal, stable, and global scores for each of the positive and negative hypothetical events can be combined into composite positive and composite negative scores (CP and CN). A summary optimism score (CPCN) is derived by subtracting CN from CP. Internal consistency and test-retest reliability is best with these three composites (30).

Examination of explanatory style in children began in earnest as recently as the mid 1980s. Research since indicates that children's causal attributions, especially those for negative events, stabilize into a style by about age nine (31) and that, as with adults, pessimism leads to an array of age-relevant problems. Pessimism causes depressive symptoms in children (30). The pessimistic child tends to underachieve academically (32, 33) and has fewer and less satisfying peer relationships (34).

Can the maladaptive consequences of pessimism be averted? Is explanatory style changeable? Cognitive therapy does produce positive change in explanatory style. This appears not to be true of drug therapies, even when the degree of depressive symptom relief is comparable. Furthermore, change in explanatory style is an important mediator of both treatment and relapse prevention effects (35). That is, those depressed patients who become more optimistic over the course of cognitive therapy not only benefit more from the therapy, but are also more robust against subsequent bouts of depression.

The Penn Optimism Program (POP) attempts to equip at-risk children with these same skills.

Challenging Pessimism

The Penn Optimism Program (POP)

The Penn Optimism Program (POP) is a 12-week (24-hour), school-based intervention which is delivered in groups of 10 to 12 children. In our initial iterations of POP, participants were not diagnosably depressed, but were at risk for depression due to high levels of family conflict, low levels of family cohesion, or the early onset of mild levels of depressive symptomatology. In POP we have attempted to distill the essential skills of cognitive therapy, calibrate them to a child's developmental age, and present them in a preventive mode. The result is a manualized, activities-based curriculum which reads much more like a school course than a therapy.

Reference to an "optimism program" may invoke notions of a protocol designed purely to make pessimists more optimistic; a "reattribution training," as it is often labeled. Reattribution is an important skill to which substantial content is devoted in POP. But relegating optimism to change in causal explanations is optimism narrowly defined (36). The causal attributions we make are rich in context and meaning. They reflect our past successes and failures. They are snapshots of our current cognitive biases. And they entail predictions about our futures. When a child concludes that she failed a history test because she "didn't study enough," she is implicitly adding that in the future she can avoid academic failure by studying more. Conversely, when she attributes to a pessimistic cause like "I'm just plain stupid," she endows her academic future with hopelessness.

In addition, causal explanations frame the problems in our lives and therefore also determine the goals we set and the solutions we generate. Some children in interpersonal settings seem particularly prone to biased attributions and consequently to poor social problem solving. Accurate predictions and effective problem solving are skills which we include as learned optimism, broadly defined.

Causal Reattribution: Flexibility and Accuracy

In POP, the skill of reattribution is set within the framework of Albert Ellis's ABC model (37, 38). Ellis argued that we intuitively believe that activating events lead to emotional and behavioral consequences (A→C, e.g., fail a history test and so give up and become depressed), but that this intuition is wrong because it omits a crucial mediating variable. According to Ellis, activating events invoke certain beliefs in us, and it is these beliefs that make sense of how we feel and what we do (i.e., A→B→C). Beck and colleagues focus on automatic thoughts; those beliefs that occur reflexively in the wake of negative events (9, 39, 40). Attributions represent an important subset of automatic thoughts.

The first three sessions of POP teach the skill of causal reattribution. But more fundamentally these sessions try to convey to the participant the notions of cognitive flexibility and accuracy.

Sessions 1 and 2 are devoted to developing flexibility. Adults and even children get themselves into explanatory ruts. Their explanations for negative events form rapidly and reflexively and exist on the periphery of awareness. Therefore, we must first teach the children to slow down their thinking in order to identify their automatic attributions. Second, we guide them to an understanding of the emotional and behavioral impact of these thoughts, as predicted by the ABC model. We describe this to our students as the link between thoughts and feelings and present it in the form of three-panel cartoons like that in Figure 8.1.

POP participants learn how to recognize pessimistic and optimistic thoughts and to analyze them according to the three dimensions of explan-

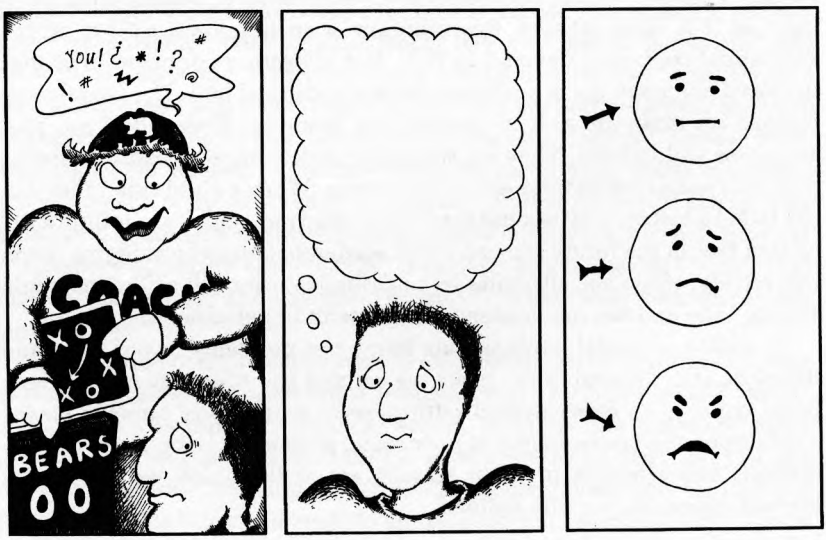

Figure 8.1. Illustration of the ABC model using a three-panel cartoon.

atory style. With the aid of role-plays and stories, they learn about the mechanism of self-fulfilling prophecy, by which pessimistic thoughts lead to depression and failure while optimistic thoughts do not. When Greg, a pessimist, is turned down at the school dance, for example, he thinks: "I got rejected because I'm ugly and nobody likes me." The emotional consequence of this thought is that Greg feels sad. The behavioral consequence is that he clings to the wall for the rest of the evening. By taking himself off the dance floor, he ensures that he does not get to dance. This only serves to corroborate his initial belief, rendering it even less likely that he dances at the next event. Linking back to helplessness and explanatory style, Greg's attribution of the event to highly internal, stable, and global causes leads him to quit and to fail to exert control over elements of the situation which are in fact changeable.

Most important, however, we encourage the students to generate alternative causal attributions; explanations outside of their typically narrow band of optimism-pessimism. We ask them to be as creative as possible, without vetting their responses, and we help them trace the very different consequences they would experience were they to endorse the alternative attribution. Imagine if Greg were to respond with a more external, unstable, or specific response, such as "she must not feel like dancing," or even "that girl probably doesn't like me." What are the alternative emotional and behavioral consequences for him? He will probably experience some sadness, but significantly less than the thought "I'm ugly" will generate in a 12-year-old child. His more optimistic thoughts make it rational for him to persist, and his persistence will, in all likelihood, lead him to a dance partner (see Figure 8.2). This newfound cognitive flexibility continues as a central theme in POP, applied not only to causal attributions, but also to predictions about the future and the search for goal-compatible problem-solving strategies.

While Sessions 1 and 2 promote the expansion of the children's attributional repertoire, Session 3 is devoted to funneling down to accuracy. The lay notion of optimism is one of resolutely refusing to see bad events as bad. This is encapsulated in facile phrases like "turning grey skies into blue," "looking at the world through rose-colored glasses," or "seeing the glass as half-full." Even some clinicians and researchers have communicated to us their belief that reattribution is the process of shaping optimistic explanations, regardless of the evidence. This, however, has never been our understanding of that skill. Rather for us, reattribution is the practice of supplanting pessimism with optimism only "to the extent that reality permits" (36).

In POP, the skills of generating alternatives (cognitive flexibility) and evaluating the evidence for and against each is paralleled with the work of a detective. Endorsing one's initial attribution without considering other possible causes is analogous to arresting the first suspect. Glibly reattributing to a more optimistic cause is equally irrational.

Problems in life almost never have a single cause. Rather, they are a consequence of a multiplicity of contributing factors. So, in analyzing the

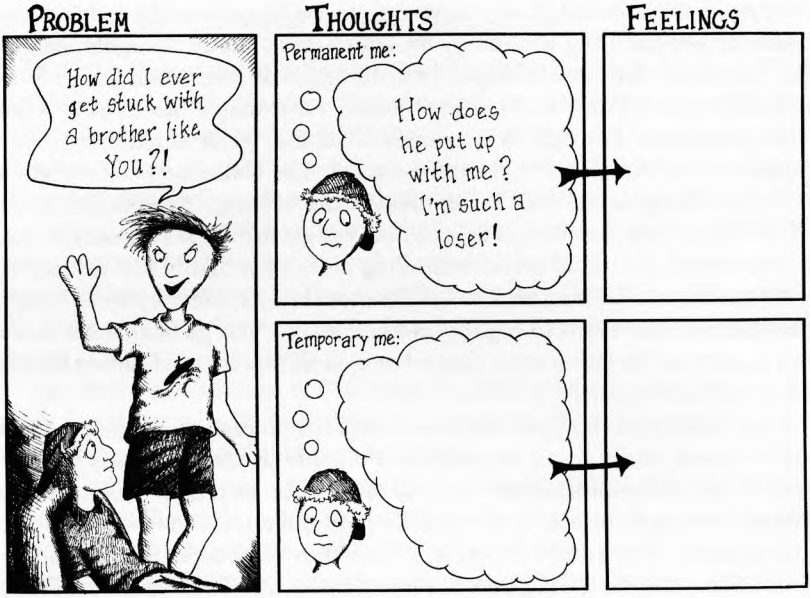

Figure 8.2. Demonstrating reattribution with the three-panel cartoon.

cause of a problem, a good detective first lists several candidates. In response to asking herself why she failed the history exam, she not only arrives at the explanation "I'm just plain stupid," but also lists "I didn't put in enough hours of study," "I didn't study the right material in the right way," "the teacher has it in for me," and "I'm just not good at history" to name a few.

POP participants are taught how to review their lives and solicit information from others to help in evaluating the accuracy of each causal self-statement. Older children are assisted in determining the relative contribution of each cause that has implications for problem solving. Devoting more time to study for the next exam is only beneficial if the child also studies the right material in the right way. Similarly, coaxing her parents to meet with the principal about the teacher's animosity will not help if the exam failure is due to inadequate study. You cannot solve a problem until you know what the problem is.

Some children are habitually more optimistic than the evidence warrants. This typically manifests itself on the internal-external dimension. In the wake of an exam failure, they may automatically assume it's because "the teacher hates me." We encourage these children to generate and evaluate more internal attributions in order to take responsibility for what they are truly culpable. Their overly optimistic response may preserve their self-esteem and mood, but it is not reality-based and so does not lend itself to effective solutions. Our task with children who habitually externalize blame is to guide them to greater dexterity in generating more pessimistic

attributions. However, the children in our programs more often show a depressogenic attributional style. When these children become more accurate in their causal explanations, they are moving toward the optimistic end of the continuum.

Determining a problem-solving strategy is also a logical funneling process. Focal causes are delineated from the candidate list on the basis of the evidence implicating them in the problem. Once isolated, their changeability can be examined. Highly stable factors are less amenable to change (e.g., "I'm just not all that smart"). Although such a cause may play a large role, it is maladaptive to allocate limited problem-solving resources to its resolution. If unstable factors (e.g., study habits) contribute at all, then some scope for improvement is afforded the student. Study habits can be monitored and alterations made and tested against subsequent exams. If the child truly adheres to the new study regimen but still no change is evident, then different causes should be examined and new solutions sought and tested. Eventually the weight of the evidence may indeed indicate that the student truly is just not cut out to be a historian. In spite of all her efforts to improve in the course, the student may have reached asymptote on grade or academic interest. Perhaps then a cost-benefit analysis may point toward reallocating her study time and energy to different subjects. If asymptote is reached across her academic life, then she should be encouraged to explore nonacademic talents and interests, while studying enough to maintain the best grades she can. Her depressogenic or anxiety-invoking beliefs about her future (e.g., "I'll never amount to anything") can be subjected to the same scrutiny, as described in the next section.

It is in this way that learned optimism plays out in problem solving. The optimistic child is not Pollyanna. When problems arise, she seeks out those causes which are most implicated and most changeable. The pessimist becomes helpless because he automatically settles on a unitary stable and global cause and so can find no leverage for change. The optimist remains resilient because her cognitive skills lead her to find and exert control whenever and wherever possible, but always "to the degree that reality permits" (36).

Applying the Skills to Predictions

Depression and anxiety are highly comorbid in both adults and children (41). The same cognitive errors and distortions which produce depression when applied to past events may lead to anxiety when operating on possible futures. Indeed, as we saw earlier, causal attributions are imbued with predictions about the future.

Some of the children in our program are experiencing high levels of parental conflict at home. The pessimists among them report that when their parents argue, or even fight, they have a stream of thoughts like the following:

> What did I do wrong this time? I know they're fighting because of me. What's wrong with me? I'm always messing up. They get angry with me and they fight with each other. They're always arguing and they always will. They'll probably get divorced like Mike's parents. My mom will be so unhappy. She'll never get over it. My dad will move away and I'll never see him again. I'll never be happy again.

Her causal attribution is highly pessimistic. She not only blames herself ("I did something wrong"), she also assigns the cause to what seems like a highly stable, dispositional aspect of herself (something is "wrong with me"). When we make predictions about the future, it is rational to take current circumstances into account. Because she attributes the fighting to stable causes, she necessarily projects into a bleak future. "My parents will get divorced because they don't care about me, and they don't care about me because there is something wrong with me." If one assumes the cause of the fighting is permanent, one must also assume that the fighting will continue.

Her attribution to cause is probably inaccurate. Parents often fight *about* the child, but they rarely fight *because* of the child. However, disputing this single attribution may not be sufficient to significantly reduce her hopelessness. Her negative view of the future is probably supported by an entire network of pessimistic beliefs which feed into her predictions. "My mother will never be happy again because I just don't have what it takes to help her." "My father will leave forever because he doesn't care about me, and he doesn't care about me because I just can't connect with anyone." "I'll never be happy again because bad things make me sad, and I have no control over my mood nor the events in my life." These are causal attributions for projected future events.

If we scrutinize her self-statements about the future, we notice that whenever there is ambiguity, her pessimism leads her to predict the worst. She has offered up an implicit causal chain:

parents' fighting → divorce → absent father

She perceives a 1:1 correspondence between each step in the chain; fighting will lead to divorce, and divorce means that she will rarely or never see her father again. This process is called "catastrophizing" (see chapter 12 in this volume). While her predicted outcome is possible, it is unlikely. First, most married couples argue but most do not divorce. Second, within those 45% of marriages that do end in divorce, in most cases the children do have access to both parents.

The process of disputing such catastrophic beliefs is called "decatastrophizing." In this skill, the children are asked to again use their cognitive flexibility, this time in generating several possible futures as alternatives to the pessimism-driven outlook they automatically conceived. Flexibility can

be maximized by providing a structure within which the child generates alternatives. We first ask the child to generate and list the worst possible outcomes for the current situation. For the pessimists, these are the very thoughts over which they habitually ruminate. Next, we prompt for some best possible outcomes, with the caveat that they must be about as improbable as the worst list (e.g., "I'll never be happy again" can be counterpoised with "they will never argue again"). Finally, the child generates most likely outcomes. By extracting the worst-case scenarios the child feels validated. Without generating best-case outcomes children may fail to see the low probability of their worst fears. Worst and best lists serve to calibrate their evaluation using evidence.

The worst, best, and most likely lists can be used to inform problem-solving strategy. Most time and energy should be devoted to the outcomes in the most likely list. Strategies can be implemented now to minimize the chances that bad outcomes occur and maximize any positive outcomes. However, one or two of the worst-case scenarios may be so maladaptive that some time should be devoted to averting those consequences.

The child who makes pessimistic attributions for past events also projects her pessimism into the future. Like a bad detective, she assumes her most catastrophic thoughts will inevitably be realized, and this perception leads to helplessness in the present. The optimistic child recognizes that predicted futures are testable hypotheses that can be evaluated by evidence. How much do other parents argue? Of her friends whose parents have divorced, how many have access to both parents and how many are *never* happy again? They use this information to reshape their predictions, identify the most likely, and act to exert control where they can.

Applying the Skills to the Social World

We have outlined and demonstrated the use of learned optimism skills with causal attributions and with catastrophic predictions. There are indications that for some children, negative social interactions evoke a particular style of attributional bias, to which the skills of learned optimism can be successfully applied. In this section we examine attributions in the social domain.

Research within the last decade has identified five information-processing steps required for competent social interaction (42). For a child to respond appropriately to the behavior of a peer, she must first attend to and encode the verbal and nonverbal cues displayed by the peer. Second, she must use those cues to accurately interpret the peer's motivation for behaving as he did. Third, she must generate an array of possible responses, evaluate the consequences of enacting each, and then, fourth, select the most appropriate. Fifth, she must successfully enact the selected behavioral response.

Peer-rejected and aggressive children commonly show deficits at one or more of these stages (43). For example, visualize the melee that can be the middle school playground. Imagine a child who finds himself face down on the ground without knowing how he got there. Was he pushed or accidentally bumped, and by whom? Some children in negative interpersonal situations such as these tend to assume that the other's intentions were malevolent, and they selectively attend to cues that support that assumption. This hostile attributional bias often leads them to select and enact aggressive responses. From the perspective of their peer who truly meant no malice, this aggressive response seems unprovoked, and so they tend to respond in kind. The true level of hostility is embellished through the distorted lens of the child's hostile attributional bias—and so the cycle of aggression continues.

POP attempts to build skills at all five stages of the social-cognitive process. Children are taught basic behavioral skills to delay their initial impulse to act. Instead, they learn to identify and distance themselves from their automatic hostile attribution. Like a good detective, they draw up a list of suspects (generate alternatives), and look for clues (evaluate evidence) to determine the relative contribution of the candidate causes they have generated. They learn how to view the situation from another's perspective, the better to determine the true motivation of the playground instigator. The children use decision-making skills acquired in an earlier session to choose the most appropriate course of action, and learn strategies to help enact that option (e.g., assertiveness).

Depressed children are more likely to make hostile attributions than their nondepressed peers (44). When faced with an aversive social situation, the pessimist will invoke a self-fulfilling prophecy—an interactive aggression spiral that brings upon himself the very behavior against which he is so vigilant. The optimistic child has learned to see the world more accurately and so is primed to choose a more prosocial course of action.

Empirical Evaluation of POP

POP is predicated on the skills of learned optimism outlined above. These are complemented with lessons on assertiveness, negotiation, relaxation techniques, anger, and sadness control, dealing with procrastination, social skills, and decision making. The 12–session protocol is fully scripted and manualized (45).

The first empirical trial of POP was conducted with fifth- and sixth-grade children in two middle schools in the suburbs of Philadelphia (46, 47) (design and methodology is fully described in Jaycox, Reivich, Gillham, & Seligman, 1994). The children selected for the program were at risk for depression based on their self-report of depressive symptomatology and their perception of parental conflict in the home. Both prevention and control condition children completed the Children's Depression Inventory

(CDI) (48) and the CASQ at six measurement points; pre, post, and every six months for two years.

POP children experienced significantly fewer depressive symptoms than their control peers at every measurement point from post-test through the two-year follow-up. The clinical significance of these data was also indicated, with 38% of children in the control group suffering moderate to severe levels of depressive symptomatology by the two-year follow-up, compared with 12% in the prevention condition (see Figure 8.3; in this comparison, moderate to severe depressive symptoms is defined as a score greater than 18 on the CDI).

A central aim of POP is to guide children toward more accurate causal attributions for the negative events in their lives. Children at risk for depression tend to exhibit depressogenic thinking styles, such as pessimism. They habitually respond with pessimistic attributions without determining their accuracy. Therefore, for these children, thinking more accurately is equated with thinking more optimistically. Results from this first trial did indeed demonstrate that children in POP developed significantly more optimistic explanatory styles compared with their control peers over the follow-up period (see Figure 8.4). Furthermore, mediational analyses indicated that this positive change in explanatory style led to depressive symptom relief in the prevention group children.

This study demonstrated the two premises essential to our program of research. First, children can become more optimistic when equipped with a set of cognitive skills. Second, this change in explanatory style has prophylactic effects against depression.

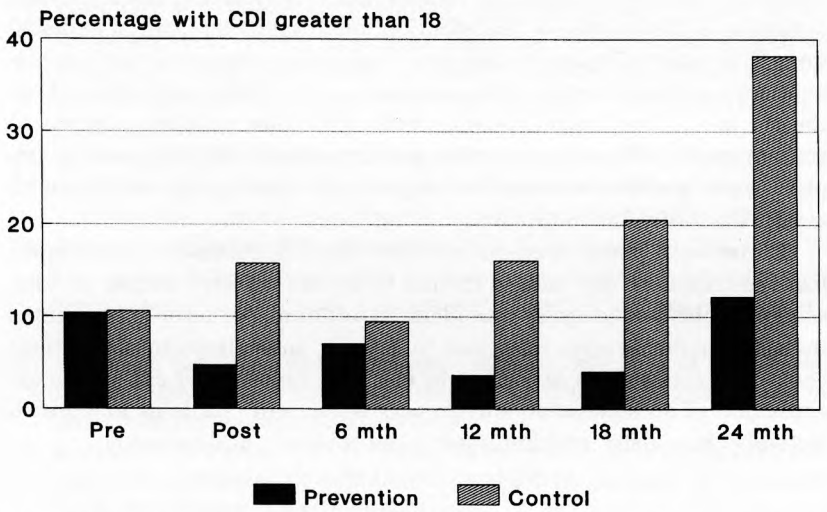

Figure 8.3. The proportion of children experiencing moderate to severe levels of depressive symptoms.

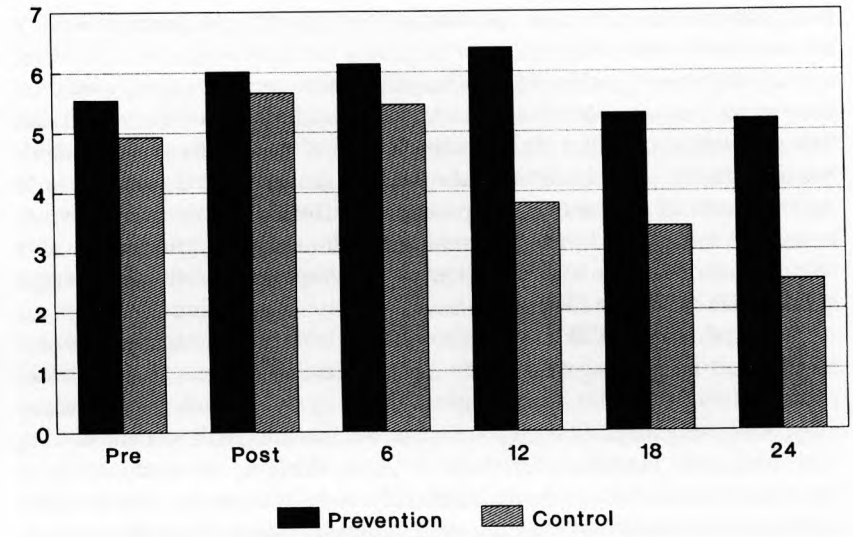

Figure 8.4. Explanatory style by condition and time (numbers represent months).

Conclusions and Future Directions

In this chapter we have described the childhood depression risk factors of learned helplessness and explanatory style. We have outlined a learned optimism program designed to redress them. Narrowly defined, learned optimism is the process of reattribution; modifying one's causal explanations to fit reality. Typically, this entails adopting a more optimistic explanation for negative events. More comprehensively formulated, learned optimism is a set of cognitive-behavioral skills that children can use to ameliorate the effects of pessimism and catastrophic thinking and to improve social problem solving. At its core, the program equips children with greater flexibility and resiliency.

Our research platform continues to be one of dissemination and empirical validation. To this end, in the last two years we have trained middle-school teachers as program providers. In addition, we have implemented research methodologies designed to answer some important questions about the mechanisms of change in POP. We believe that systematic examination of dissemination and process issues will enable us to more effectively "inoculate" children against the epidemic of depression.

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