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Understanding Emotion

PAUL L. HARRIS

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Our emotional lives are complicated by two factors that are frequently ignored in psychology. First, at least beyond the period of early infancy, we not only feel an emotion, we also know that we are feeling an emotion. This self-awareness can be used to report, anticipate, hide, and alter the emotional state. Second, we can identify and understand the emotions that others feel. This other-awareness can be used to upset or comfort the other person; it also has emotional repercussions for the observer, awakening feelings of guilt, apprehension, and gratitude *vis-à-vis* the other.

In this chapter, I trace the development of this dual awareness. I argue that some of its early manifestations reflect a wider body of knowledge about the workings of the mind that children construct, regardless of culture. Having set out the argument, I review various standard approaches to the development of emotional understanding.

INTENTIONALITY

In the first year of life, infants begin to recognize the intentionality of emotional states—the fact that they are often directed at objects or situations in the environment. This is shown most clearly by the phenomenon of social referencing. Confronted by a salient stimulus whose status is uncertain, infants aged about 9 months will look toward a caretaker as if for guidance. Depending on the emotional stance of the caretaker—for example, encouraging or fearful—infants are more or less likely to approach the stimulus (Klinnert, Campos, Sorce, Emde, & Svejda, 1983). This phenom-

enon reveals several features of the infant's early conception of emotion. First, and most obviously, the infant's selective response shows that he or she is able to discriminate between different facial expressions of the caretaker. In addition, the infant is able to respond appropriately to the emotional significance of the expression: to retreat if the caretaker expresses disgust or fear, and to approach if the caretaker expresses encouragement or pleasure. Finally, and of equal importance, is the fact that the caretaker's expression is not simply an inhibitor or releaser of the infant's ongoing action. It operates in a more complex and subtle fashion. Specifically, the infant treats the expression as a comment on a particular object or person in the immediate environment, rather than as a generalized behavioral instruction. Thus, the infant's selective reaction is directed at the object that the adult looks toward when expressing his or her emotion (Hornik, Risenhoover, & Gunnar, 1987). This last feature of social referencing is important because it shows that the infant conceives of another person's emotional stance as an intentional stance—one that is targeted at, and to be glossed as, a comment on a particular object.

In the first year of life, infants resonate appropriately to the emotional expressions of other people, but show little sign of regarding them as states of the other persons that may be initiated or assuaged by their own actions. In short, infants exhibit little tendency to comfort or deliberately upset another person. This starts to change in the second year of life. Although there are important individual differences, infants begin to make rudimentary

efforts to comfort a caretaker or sibling who shows obvious signs of distress. For example, they may approach and pat a distressed person, or offer him or her objects (Zahn-Waxler & Radke-Yarrow, 1982). In a parallel fashion, infants start to make deliberate efforts to upset or tease other people in the second year: They may deliberately strike another person, or make off with objects that the other clearly wants (Dunn & Munn, 1985). These various behaviors show that 1- and 2-year-olds think of another person as experiencing an emotional state that they themselves can causally influence. In particular, they exhibit simple efforts to alter the relationship between the other person and the intentional object or target of his or her emotion. Thus, they proffer or withdraw a desired object. They step between warring parents, or they direct their ministrations to the body part of a sibling who has been hurt.

DESIRES AND BELIEFS

Recent research has shown that children aged between 2 and 3 years begin to construe actions in terms of the desires that motivate and guide them. By the age of 4 and 5 years, they also acknowledge that agents do not always pursue their goals with bona fide knowledge of the best means. Children realize that agents select actions in terms of their beliefs—true or false—about how best to attain what they desire (Harris, 1989; Perner, 1991; Wellman, 1990).

This psychological "theory" is also used by children in their understanding of emotion. Insofar as 2- and 3-year-olds regard other people as agents who pursue their own individual goals, they also assume that the emotions these agents experience will be a function of the match between reality and their goals. Thus, children understand that other people will be sad if they do not get what they want, but happy if they do. This very simple conception of emotion is quite powerful. It allows children to realize, for example, that there is nothing inherently joyful or sad in a given outcome; its effect on particular agents may vary sharply. Thus, one person may be pleased to be given milk if that was what he or she wanted, whereas another person may be sad to be given milk if he or she wanted juice instead (Harris, Johnson, Hutton, Andrews, & Cooke, 1989; Yuill, 1984).

By the age of 4 or 5 years, this simple conception is elaborated still further. The child starts to realize that it is not the fit between desire and actual outcome that elicits emotion, but rather the fit between desire and assumed outcome. For example, let us say that the child watches a little drama in which a monkey tricks an elephant: The monkey offers the elephant a can of Coke, Coke being the elephant's favorite drink. Unknown to the elephant, however, but known to the child (who has watched the monkey's prior machinations), the Coke has been tipped out of the can and replaced by milk, which the elephant does not like. The child can now be asked two questions: How does the elephant feel when she first sees the can, before she sips any of the liquid inside with her trunk? And how does she feel after she has taken a sip? Even 3-year-olds can get the second question right, as we would expect from the preceding analysis. Seeing the elephant as an actor with her own distinctive and subjective desires, they realize that she will be sad when she finds out the true contents of the can—the milk that she does not like, rather than the Coke that she enjoys. However, 3- and 4-year-olds have much more difficulty with the first question, which concerns the elephant's emotion prior to her discovery of the monkey's trick. They judge that even at this point she will be sad, as if she somehow knew what the monkey had done. By contrast, many 5-year-olds and almost all 6-year-olds grasp that the elephant's emotion at this point will be based on a false premise: Seeing the can, she will happily anticipate that she is about to enjoy her favorite drink (Harris et al., 1989).

The emergence of this belief-desire conception of emotion appears to be universal among normal children. For example, Baka pygmy children living in a preliterate community in the rain forests of Cameroon exhibit a similar pattern of development to their peers in the West: By 4-5 years of age, they realize that someone will react emotionally not in terms of the actual situation, but in terms of the situation that they mistakenly take to be true (Avis & Harris, 1991).

SOCIAL STANDARDS

The world would be a simpler place if getting what we wanted made us happy and not getting it made us sad. Yet (outside of *laissez-faire*

economics) we rarely condone the naked pursuit of self-interest, and its pursuit rarely makes us happy. Young children do not appear to share these qualms. When told simple stories in which the protagonist does something bad (e.g., stealing), but ends up getting what he or she wants (e.g., the marbles belonging to a classmate), then 4- and 5-year-olds judge that the protagonist will be happy. Here again, we find them applying their simple desire model of emotional satisfaction: Getting what one wants brings happiness, and it does so regardless of the cost to others. By contrast, 8-year-olds recognize that such wrongdoing will probably lead to a bad conscience on the part of the perpetrator—he or she will feel guilty (Nunner-Winkler & Sodian, 1988).

One possible explanation for this moral insouciance on the part of young children is that they simply do not know what is right or wrong. However, there is ample research with preschool children showing that this is not the case. In fact, they have a robust appreciation of the wrongness of misdemeanors such as stealing, hitting, and lying: They go so far as to insist that such actions would be wrong even in a culture or environment with no particular rules about such acts (Smetana, 1981).

A more plausible explanation is that young children view their emotional lives in narrowly hedonistic terms: They do not anticipate gaining any emotional satisfaction from conforming to the moral canons they so firmly recognize. Thus, they do not anticipate that a wrongdoer will feel bad or guilty about having violated a moral standard. Conversely, they do not anticipate that someone acting righteously will feel satisfied or proud at having resisted temptation. This neglect of the influence of rules or standards on our emotional lives appears to extend beyond the moral sphere. For example, it is not until 8 years of age that children realize that someone will be proud at having accomplished something that meets or exceeds a social standard. Until that age, they acknowledge that one might feel pride, but only insofar as one's achievement is witnessed by an approving caretaker (Harter & Whitesell, 1989).

Thus, the available evidence suggests that a sea change occurs at about 6 or 7 years of age in young children's conception of the causes of emotion, or rather in their conception of the springs of action. Whereas the preschooler sees an agent as bent on the pursuit of his or her desires, since their satisfaction will bring

unalloyed happiness, the 8-year-old realizes that agents are also motivated to meet certain moral and social standards. Securing an otherwise desirable object will not bring happiness if it involves the violation of those social standards; instead, one will feel guilt or shame. Conversely, forgoing an otherwise desirable object may not necessarily lead to sadness, if in so doing one has abided by some social or moral precept.

MIXED EMOTIONS

Hitherto, I have discussed emotional reactions as if they were uncluttered, singular reactions of sadness, fear, shame, and so forth. In fact, the same situation can trigger more than one emotion, and can even provoke emotions of opposite valence. Faced with a new opportunity, we may feel a conjunction of excitement and apprehension; if eventually that opportunity slips through our fingers and is seized by another person, we may end up feeling regret at the opportunity that we have lost, relief at not having to face the challenge that it might have offered, and envy at the person who will go in our stead.

Young children are quite slow to acknowledge this kaleidoscopic aspect of emotion. Whether they are asked to invent or describe episodes (Harter & Buddin, 1987) or to attribute emotions to a story character (Harris, 1983; Meerum Terwogt, Koops, Oosterhoff, & Olthof, 1986), children below the age of 8 or 9 years are inclined to think of emotional reactions as single-valenced. For example, asked about a story character who is asked down into the circus ring to join the clowns, young children are likely to say that the character will be pleased or afraid, but they typically deny that both emotions can be experienced concurrently. By the age of 9 or 10 years, this constraint is set aside; children acknowledge that the same situation can provoke two opposite feelings.

Why do children find it difficult to acknowledge mixed emotions? On the basis of various control procedures, we can rule out some initially plausible hypotheses. For example, it is not the case that young children misconstrue or simplify situations likely to provoke mixed emotions: Asked to retell stories containing such situations, they show quite accurate recall (Harris, 1983). Nor is it likely that young children reject the possibility of mixed feelings

because they think of such feelings as mutually exclusive opposites that cannot co-occur in the same person. Even when asked whether different people might feel a single (albeit different) emotion in response to a given situation, younger children tend to deny that it is possible, and to focus exclusively on one of the two possibilities (Gnepp, McKee, & Domanic, 1987).

A more plausible explanation is that young children fail to scrutinize an emotionally charged situation in an exhaustive fashion. Having settled on one feature of the situation, they cease to consider it from a different point of view, even though they know that it contains other features and can describe these features quite accurately if asked. Support for this emphasis on young children's nonexhaustive appraisal strategy comes from a recent training study. Children listened to a story episode that contained two conflicting components; to ensure that they paid attention to each component, they were asked what emotion each component would provoke. Then, at the end of the story, they were asked how the protagonist would feel overall. Many children who had ignored the possibility of mixed feelings at the outset of the study now acknowledged that the protagonist might feel two opposing emotions; moreover, when they were asked about similar episodes in their own lives, they could frequently recollect appropriate examples. Interestingly, this training effect worked for the 6- and 7-year-olds, but was relatively ineffective for younger children, suggesting that an exhaustive appraisal calls for a minimum information-processing capacity (Peng, Johnson, Pollock, Glasspool, & Harris, 1992).

HIDING EMOTION

Do children realize that a person's emotional expression may not correspond to his or her real emotional state? There are two issues involved in answering this question, one conceptual and the other perceptual. We may begin with the perceptual issue. Research with adults shows that their deliberate displays of emotion differ from their spontaneous expressions of emotion. However, the differences are subtle and hard to detect. Not surprisingly, adults are poor at distinguishing a deliberate, strategic display of emotion from its authen-

tic, spontaneous counterpart. Children also have great difficulty in making this perceptual discrimination.

Despite the difficulty in deciding on any particular occasion whether a smile or frown is fake or genuine, children may still have a general conceptual appreciation of the fact that real and apparent emotion need not coincide. Indeed, several experiments show that this insight emerges quite early, typically between 4 and 6 years of age. For example, if children are told stories that contain two critical components—an emotionally charged situation (e.g., tripping and hurting oneself), and an explicit reason for hiding the ensuing emotion (e.g., the likelihood that other children will tease the victim if he or she bursts into tears)—there is a clear age change in their ability to work out the emotional ramifications. Six-year-olds understand that the victim may really feel sad but will try nonetheless to look happy or OK. They also understand that an onlooker will be misled by this display, mistakenly thinking that the victim is not upset. By contrast, 4-year-olds are more likely to collapse the distinction between real and apparent emotion (Gross & Harris, 1988; Harris, Donnelly, Guz, & Pitt-Watson, 1986).

Several additional features of this age change are worth emphasizing. First, it is not restricted to English-speaking children. Japanese children, who grow up in a culture that places considerable emphasis on the appropriate display of emotion even by young children, show a similar age change (Gardner, Harris, Ohmoto, & Hamazaki, 1988). Second, the ability to conceptualize the difference between real and apparent emotion is not a prerequisite for actually deploying display rules under appropriate circumstances. For example, when children unwrap a gift and find that it is disappointing, they will express less overt disappointment in front of the donor than when they open the gift alone (Cole, 1986), even at 4 years of age.

Thus, children can put certain simple display rules into practice before they can understand them. Indeed, this developmental sequence may be necessary. Specifically, children may first need to create a discrepancy between what they actually feel and what they express to others in order to start to conceptualize that discrepancy. The mismatch between actual and expressed emotion may be especially potent if children are alerted to it

by the fact that despite their own awareness of what they actually feel, other people react gullibly to their misleading display of emotion. Notice that it would not be easy for the children to discover any discrepancy between real and displayed emotion with respect to other people, because, as noted earlier, it is hard for children to make any perceptual discrimination between a genuine and a simulated expression (Harris & Gross, 1988).

Finally, it is worth emphasizing the revolutionary nature of the child's discovery. The 6-year-old who adroitly distinguishes between real and apparent emotion has discovered the potential privacy of his or her inner emotional life. For the first time, the child can harbor feelings of resentment, anger, and grief, safe (or sorry) in the knowledge that those feelings may be quite unknown to his or her parents or siblings. Of course, children may doubt whether they can successfully hide emotion; for example, adolescents can be quite explicit about such doubts (Harris, Olthof, & Meerum Terwogt, 1981), and some insecure children may overestimate their parents' access to their private feelings (Main, 1991). Nonetheless, the concept of privacy opens up a thicket of possibilities. For the first time, the child can deliberate knowingly about whether to confide or confess. Equally, once the privacy of others' emotions is understood, the child can begin to wonder about the authenticity of other people's professions of happiness, fearlessness, or love. Finally, the child can start to enter complex triangular relationships in which feelings are deliberately hidden from one person following a request (or threat) from another person.

CHANGING EMOTION

We attempt to control our emotions in two ways—by hiding the outward expression of emotion, and by changing the emotional state itself. It has occasionally been suggested that an alteration in the outward expression is sufficient to change the emotional state, but such effects are weak (Matsumo, 1987). Moreover, they are usually achieved under artificially insulated conditions. Specifically, subjects are asked to compose a particular emotional expression in the absence of any counteracting situation. By contrast, in real life, our attempts to compose a particular facial expres-

sion have to counteract the influence of the immediate context. For example, "a brave face" is usually composed not in an affectively neutral situation, but in a threatening or dangerous situation.

Given that a mere outward adjustment of our emotional expression is rarely sufficient to change the emotional state itself, we typically resort to techniques that strike at the cause of the emotion rather than at its symptomatic expression. Do young children make this differentiation? In an interview study, children aged 6, 11, and 15 years were asked about the possibility of both hiding and changing their emotion (Harris et al., 1981). Children typically gave different answers to these two questions. With respect to hiding emotion, they emphasized the need to change one's outward behavior. With respect to changing emotion, on the other hand, they focused on the cause of the emotion: They suggested changing either the immediate external situation, or the thought processes sustaining the emotion.

Various studies have shown that there is a gradual shift with age in the balance between these latter two strategies. Younger children concentrate on the need to change the external situation. Older children, in contrast, mention cognitively oriented strategies in addition (Altshuler & Ruble, 1989; Band & Weisz, 1988; Harris & Lipian, 1989). For example, in a study of boys who had just started to live at a new boarding school, a popular technique for warding off homesickness was keeping oneself mentally occupied, thereby leaving no time for thoughts of home (Harris & Guz, 1986).

One plausible explanation for children's increasing emphasis on this technique is that it is part of a wider conceptual change in their understanding of the mind. Specifically, as children get older, they realize that the mind has a limited information-processing capacity. Accordingly, they realize that negative thoughts and the emotions they arouse can be deliberately displaced by positive thoughts and the emotions they arouse. A particularly effective analgesic in the case of painful thoughts is an activity that requires concentration. Even if the activity is not especially enjoyable in itself, it may still serve the function of blocking out painful thoughts. Accordingly, the boarding-school boys sometimes mentioned absorbing intellectual activities (e.g., solving math problems) as a therapeutic technique (Harris, 1989).

REVIEW AND IMPLICATIONS

The evidence reviewed in the preceding sections suggests that children's understanding of emotion is part of a wider conceptual development. A flurry of recent research (Astington, Harris, & Olson, 1988; Harris, 1989, 1991; Perner, 1991; Wellman, 1990) has charted the emergence of the child's so-called theory of mind. Without necessarily subscribing to the notion that children are busy working out a theory concerning the operations of the mind, we can readily acknowledge that children are constructing an increasingly elaborate conception of the way in which a variety of reactions, including emotional reactions, are governed by mental states. During the first year of life, children begin to acknowledge the intentionality of emotion; in the preschool years, emotions are increasingly incorporated into a simple belief-desire psychology. In the school years, this psychological model is refined in various ways as children begin to understand more about the control of emotion, including both the external expression and the internal state itself. We can now begin to consider the implications of these findings for standard theories of emotion and emotion understanding.

Emotion Scripts

A long tradition of work in social cognition, beginning with Borke's pioneering studies (Borke, 1971), has demonstrated that children rapidly work out the type of situations that elicit various emotions—fear, sadness, happiness, guilt, and so forth (Barden, Zelko, Duncan, & Masters, 1980; Harris, Olthof, Meerum Terwogt, & Hardman, 1987). Children are also aware of the typical actions and expressions that accompany a particular emotional state (Trabasso, Stein, & Johnson, 1981).

Given children's facility in building up this knowledge base, it is tempting to conclude that their understanding of each emotion involves a script in which there are slots for the eliciting situation; the subjective state; and the accompanying physiological, behavioral, and expressive symptoms of the emotion. Such an emphasis on script-based knowledge has several advantages. First, it assimilates children's understanding of emotion to a wider body of research on children's understanding of other regular, sequentially organized events (cf. Nel-

son & Gruendel, 1979). Second, it draws attention to the fact that an understanding of emotion calls for a causal understanding of the connections among the sequential components. Third, the script notion is sufficiently flexible that it promises to be of service when we look outside the Western world to children's understanding of emotion in cultures where different emotional themes are prominent (see Lutz, 1987).

Nonetheless, there are problems with a narrow emphasis on script-based understanding. Although it is loosely correct to claim that particular situations arouse particular emotions, closer scrutiny reveals a conceptual difficulty. Specifically, the same situation can elicit different emotions, depending on the appraisal that the actor makes of the situation. To take a simple example, even 3- and 4-year-olds in an experiment described earlier (Harris et al., 1989) realized that the impact of discovering the actual contents of a gift container would depend on whether it matched what the person wanted. Thus, the very same discovery can lead to happiness or sadness, depending on the actor's appraisal. This means, for example, that we cannot write down a list of the situations that elicit happiness, confident in the knowledge that they will have a similar impact on everyone.

A possible solution to this problem is to define the eliciting situation in more abstract terms. For example, we might define situations that provoke happiness as "situations that bring about the fulfillment of an actor's desire." Once we move in this direction, however, we are tacitly recognizing that emotions are very special kinds of scripts. They do not begin with the kind of objective event that we normally associate with scripts (e.g., the action of sitting down at a table may be seen as the first move in the dinner script). Rather, they begin with an event that is inherently psychological, such as an actor's getting what he or she wants. In short, we can apply the script notion to children's understanding of emotion, but its successful application will presuppose an analysis of children's psychological understanding.

A second disadvantage of the script-based approach is that it provides no impetus for the identification of developmental regularities in children's understanding. For example, research described in an earlier section has shown that at about the age of 4-5 years, chil-

children start to understand the role of beliefs. This insight appears to generalize across different emotions, including happiness, surprise, and fear (Hadwin & Perner, 1991; Harris et al., 1989). Were children simply acquiring a distinct script for particular emotions, such cross-emotion regularity would not be expected.

The Emotional Unconscious

The traditional approach to the emotional unconscious is to assume that painful feelings are repressed. That such repression occurs is taken for granted by psychoanalytic theory. This is not the place to debate the merits and demerits of the psychoanalytic approach to emotional development. However, it is worth underlining two features of the psychoanalytic approach that contrast with the current approach. First, according to psychoanalytic theory, the child represses painful rather than pleasurable material; only if the latter is associated with threat or guilt is it also subject to repression. Thus, according to psychoanalytic theory, there would be no reason to expect the child to repress feelings of unalloyed joy. Second, the cause of repression is motivational rather than cognitive. Precisely because certain feelings are painful, the child is motivated to banish them from consciousness.

The developmental account that I have described offers a quite different approach to the emotional unconscious. First, it is plausible to suppose that in early infancy a child has emotions and expresses them, but simply lacks the ability to conceptualize his or her emotional experience. Thus, the infant feels and expresses fear or anger, but lacks the conceptual ability to realize that it is in any particular emotional state. Exactly when children start to become aware of their own emotions is, of course, difficult to establish. To the extent that children talk appropriately about their emotions in the second and third year of life (Bretherton & Beeghly, 1982), we can be confident that by that age, if not sooner, they are aware of their emotional states.

Nevertheless, even after this achievement, it is likely that children's awareness remains sharply constrained. I have argued earlier that the appropriate attribution of an emotion depends on an analysis of the actor's beliefs and desires. Consider a child who is trying to make sense of an emotion experienced at some

earlier point in time. For example, the child may have been left alone by the caretaker and starts to worry that the caretaker is not going to return. Eventually, the caretaker does return and the anxiety dissipates. The child who seeks to explain his or her feelings to the caretaker may be at a loss, because the belief that caused that anxiety is difficult to reconstruct. There is now considerable evidence that young children have difficulty in acknowledging that someone might hold a false belief. This difficulty occurs not only when a child is invited to diagnose what someone else believes (e.g., the duped elephant in the experiments described earlier), but also when the child attempts to reconstruct what he or she mistakenly believed a few minutes earlier (Gopnik & Astington, 1988; Wimmer & Hartl, 1991).

What exactly might we expect, then, when the child is reunited with his or her caretaker? Theoretically, there are two possibilities. First, the child may remember the fear or distress that was felt during the separation, but (having now abandoned the mistaken belief that the caretaker will not return) may be unable to conceptualize the belief that caused the emotion, and therefore may explain only part of what has happened to the caretaker. Alternatively, in the absence of the ability to reconstruct the belief that caused the emotion, the child may also have difficulty in reconstructing the emotion that it generated. In that case, the child's narrative to the caretaker may be even more sparse. For example, the person looking after the child may explain to the caretaker that the child burst into tears at a certain point; the child, when asked about this, may claim not to remember doing any such thing.

This hypothetical outcome is, of course, similar to the type of outcome that psychoanalytic theory would expect. However, it is important to emphasize that the account I have provided lacks both of the critical elements of the psychoanalytic account. The child's lack of awareness is attributable to cognitive and not to motivational factors. In addition, the reason for the child's lack of awareness has nothing to do with the painfulness of the emotion when it was experienced.

To make this last point very clear, we may consider another hypothetical situation. This time, we may envisage the child separated from its caretaker but playing happily. The caretaker is not expected to return for some time. Suddenly, however, the door opens and

the caretaker reappears. The child experiences surprise. Here again, the child needs to reconstruct a mistaken belief (namely, that the caretaker was not about to return) in order to make sense of the surprise that he or she is experiencing. In the absence of the ability to reconstruct that mistaken expectation, we should expect the child to have difficulty in explaining his or her surprise (or even in acknowledging that surprise was felt at all), because once the caretaker is there, the (mistaken) belief that the caretaker is not about to return is abandoned. In this hypothetical example, there is no suggestion that the child is upset when the reunion occurs; if anything, the child is pleasantly surprised that the reunion has occurred earlier than expected. Nonetheless, if the account that I have developed above is correct, we should expect children to have difficulty in conceptualizing any emotion, positive or negative, that is caused by a mistaken belief.

This analysis can even be extended to emotions that are not linked to mistaken beliefs. Recent research has shown that although 3-year-olds find it particularly difficult to reconstruct a belief that they no longer hold, they also have difficulties (albeit less acute) in reconstructing a desire or goal that they no longer have (Baron-Cohen, 1991a; Gopnik & Slaughter, 1991). Consider, for example, a 3-year-old who is upset at having to hand a toy back to a younger sibling; a few minutes later, when the child is happily occupied with some alternative activity, it may be difficult for the child to conceptualize the earlier desire and the emotion that its frustration provoked.

A further example of the same family of difficulties arises with respect to ambivalent or mixed feelings. Recall that without special training, children find it difficult to acknowledge the possibility of experiencing a positive and a negative emotion at the same time until they are approximately 9 or 10 years of age. This difficulty is not attributable to any constraint on the young children's capacity to experience and express mixed feelings. Consider, for example, the extensive research within attachment theory on the group of insecurely attached infants who express an ambivalent emotional reaction to their caretakers on their reunion after separation: Such infants want to approach their mothers, but, at the same time, resist the cuddling or comforting that they offer. It will be many years

before these children can conceptualize the mixed feelings that they express.

In sum, we must distinguish carefully between the emotions that children feel, and the emotions that they can also conceptualize and talk about. Young children will frequently exhibit an easily recognizable emotion; observers may readily identify the beliefs and desires (including the contradictory desires) that lie behind the emotion. For the children themselves, however, it may be difficult to make sense of the emotions that they experience. To conceptualize an emotion requires going beyond the raw experience of the emotion. It needs to be placed in its psychological context. Without that context, children may simply recollect an inchoate feeling and its accompanying overt behavior, with little conscious appreciation of the cause and identity of the emotion. This lack of awareness should not be confused with motivated repression; it occurs because of a cognitive limitation, rather than a defense mechanism.

Individual Differences

Hitherto, I have written about children's understanding of emotion in terms of a relatively stable, age-based sequence, implying that some of the major features of that sequence are to be found universally, in all types of cultures. What role is there for individual differences in such an approach?

First, recent research has shown that those children who encounter problems in understanding the mind exhibit a parallel restriction in their conception of emotion. For example, having established that autistic children have difficulty in conceptualizing beliefs (Baron-Cohen, Leslie, & Frith, 1985), Baron-Cohen (1991b) went on to demonstrate that autistic children have a similar difficulty in understanding belief-based emotions. On the other hand, autistic children show no obvious difficulty (when compared to normal and retarded control groups equated for mental age) in understanding the link between certain familiar situations and particular emotions (Baron-Cohen, 1991b; Tan & Harris, 1991). Since we know from research with normal children that an understanding of belief-based emotions is a later developmental achievement, the implication is that autistic children are delayed in working out the psychological basis for emotion. They reach one of the lower rungs on the ladder, but have difficulty in proceeding fur-

ther. In short, one obvious way in which individual differences can and do arise is in terms of the rate of progress through the developmental sequence. Severe psychopathology, as in the case of autism, retards progress.

It is unlikely, however, that children vary exclusively in terms of their rate of progress. We may also expect children to show gaps and lacunae rather than a pervasive retardation. Various illustrative studies may be cited. First, there is evidence that emotionally disturbed children (attending special schools) deviate from normal children in their conception of display rules. When they are asked about situations in which it would be appropriate to hide their feelings, such children acknowledge that it would be appropriate to hide one's feelings in at least some situations. Thus, these children understand the basic conceptual point that real and apparent emotion need not coincide. Nevertheless, they apply that insight in a different way from normal children. Normal children recognize that one should hide one's feelings both in order to protect oneself (recall, for example, the story mentioned earlier concerning the child who trips and falls but does not want to be teased for crying) or to protect the feelings of other people (recall the situation of the child who opens a disappointing gift, but manages to smile at the donor). Emotionally disturbed children have particular difficulties with the latter category (Adlam-Hill & Harris, 1988; Taylor & Harris, 1984). One plausible explanation is that they have difficulty in recognizing the impact of their emotions (if expressed) on other people's emotions.

Children also vary in their understanding of strategies for changing as opposed to hiding emotion. For example, Meerum Terwogt, Schene, and Koops (1990) interviewed a group of emotionally disturbed children attending a special school. When asked about strategies for changing emotion, these children were more likely to insist that emotion is an autonomous, inescapable process that cannot be redirected.

These studies illustrate how the study of normal development can be used to illuminate abnormal development. Specifically, the study of normal development offers us a set of conceptual benchmarks. We can use these to create a relatively detailed profile of abnormal development. Children who are categorized, for example, as autistic or emotionally disturbed are not abnormal in their entire conceptualization of emotion; rather, they deviate

in specific ways. This circumscribed deviation is helpful from a therapeutic point of view, because it shows where a particular child may need special help, and where the child may enjoy relatively normal development.

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