CHAPTER 2

Developmental Approaches to Understanding Media Effects on Individuals

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A 12-year-old boy in Florida brutally kills a 6-year-old girl by imitating professional wrestling moves (*Stiff Sentence*, 2001). Two teenagers in Littleton, Colorado practice shooting everything in sight by repeatedly playing the violent video game *Doom* before they embark on a shooting spree that kills 13 adolescents and themselves at Columbine High School (Gibbs & Roche, 1999). A 17-year-old in Texas sets himself on fire while being videotaped in an attempt to duplicate a stunt called the "human barbecue" from the MTV show *Jackass* (Brachear, 2002). Four youths, aged 13 to 17, watch the violent film *Menace II Society* on videotape, then commit a carjacking and shoot two other youths in a manner that parallels the film very closely (Means Coleman, 2002). These and countless other tragedies are the types of incidents that often come to mind when one mentions the effects of media violence on people. While such stories suggest an immediate, direct effect of media on the perpetrators, these highly publicized "media effects" stories may actually demonstrate more about how *not* to think about media effects, because they oversimplify complex situations.

In order to more fully understand media effects on children, it is first necessary to dispel some myths regarding media influences. Thus, we address some common beliefs regarding media effects, and how these beliefs—though simple, persuasive, and sometimes partly true—may actually hamper a fuller comprehension of how various media influence youth. Following this discussion, we describe two general approaches to development—one based on normative developmental theory (the developmental tasks approach) and the other focused on individual differences among children (the risk and resilience

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approach). We will use these models as frameworks for understanding the intersection of media effects and development.

SEVEN MYTHS ABOUT MEDIA EFFECTS

Myth 1. Media effects are simple and direct.

Each of the examples above describes what appear to be simple and direct effects on children imitating what they have seen. Yet the effects of media are not simple; neither are they usually direct. Most media effects are cumulative and subtle, even when they are designed to influence behavior. This subtlety masks remarkable power and persuasiveness. For example, research on advertisements demonstrates that attitudes and purchase behavior can be altered by as few as two or three exposures to an advertisement (Woodward & Denton, 2000). Yet, as we watch or drive past advertisements we don't *feel* our opinions changing. The effects of media usually happen at a level of which we are not consciously aware.

Advertisements, for example, are designed to influence and are successful at influencing brand awareness, brand preferences, brand usage, and brand loyalty (e.g., Gentile, Walsh, Bloomgren, Atti, & Norman, 2001). We rarely notice that advertisements affect us (aside from the rare pizza commercial that immediately makes us crave pizza). This is because ads are generally presented as entertainment, so that viewers are less likely to notice any effect or to resist their messages. Research suggests that the more one participates in this charade, by claiming that advertisements don't affect one's self, the *more* likely one is to be affected (Greene, 1999).

Thus, to the extent that we expect media effects to be simple and direct, we are probably failing to notice the strongest and most powerful media influences.

Myth 2. The effects of media violence are severe.

Each of the events mentioned at the beginning of this chapter is extreme, and it is certainly true that most people who watch media violence never seriously injure other people or themselves. Since media violence does not make them commit the same kinds of violence, many people draw the inference that it has no effect on them or on most other people. Potter (1999) described this issue clearly, stating that, "People know that others are committing violent acts, but they also know that they personally have never committed any atrocities. The problem with this reasoning is that people equate [media] effects with atrocities" (p. 122). Watching violent media can have many effects, and we should not expect that exposure to media violence will cause people to begin killing each other. For every child who picks up a gun and shoots someone, thankfully there are millions who do not. But anecdo-

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tally, most seasoned educators will tell you that schoolchildren have become more disrespectful, more verbally aggressive, and more likely to push and shove each other over time. In fact, the largest effect of media violence is probably not illustrated by individual examples of violent behavior, but by the "culture of disrespect" it has fostered and nurtured (Walsh, 2001). Interpersonal violence is just the endpoint on a continuum of disrespectful behavior. As can be seen in Figure 2.1, for every single example of a school killing, there were over 7,000 serious injuries, 28,000 thefts, 44,000 physical fights, and 500,000 reports of bullying (W. Modzeleski, personal communication to the authors, January 9, 2003). Killing someone is just the most visible tip of the phenomenon—there is a great deal of aggressive behavior that is not so extreme.

While media effects on aggression are most likely to arouse concerns, violent media affect us much more broadly. Any time that you have laughed, felt excited, become scared, or otherwise aroused while watching a violent movie, *you have just been affected*. Positive and negative emotional and physiological reactions to violent media are media effects. Clearly, many people seek out this type of stimulation. After all, who wants to watch a "boring" movie? Violent media have many effects, including emotional, physiological, cognitive, attitudinal, and behavioral effects (see chapters 4 and 7 for more details). To the extent that we expect media effects to be exhibited through atrocities, we may be missing opportunities to see the more typical effects of media.

Figure 2.1
Incidents of violent behaviors in American schools, 1998. Adapted from W. Modzeleski (2002), United States Secret Service.
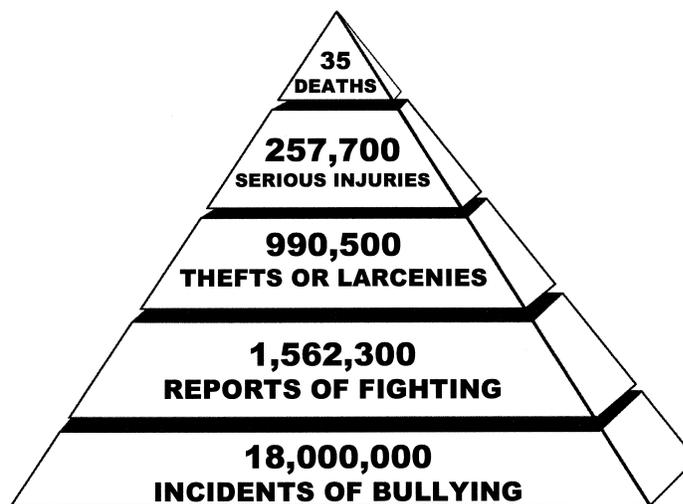
Myth 3. Media effects are obvious.

In each of the examples at the beginning of this chapter it was obvious (usually from the perpetrator's own admission) what media product had influenced the subsequent behavior. This leads many to expect that such links should usually be obvious, and thus they take the absence of a direct and obvious link as evidence that no media effects should be implicated. Because the effects of violent media are usually indirect, subtle, and cumulative (and thus not obvious), many people then argue that researchers and policymakers are trying to find an easy scapegoat to explain violent behaviors. Indeed, even when the link is obvious, many people make this argument. The following anonymous quote was posted in response to the *Jackass* copycat burning: "TV shows are not responsible for copycat attempts of dangerous stunts they portray . . . Blaming TV shows for the actions of minors is just passing the buck" ("Texas talkback," n.d.).

Because the effects tend to be subtle and cumulative, even if people notice that someone is becoming more aggressive over time, they may not infer that the gradual change could be due partly to watching violent media. Nevertheless, cause-effect relationships need not be obvious to be significant. Most people accept that smoking causes lung cancer, even though the effect is subtle and cumulative (for a description of the many parallels between smoking and media violence, see Bushman & Anderson, 2001). One cigarette does not change a person's health in any particularly noticeable way, but years of smoking can have dire consequences (but, importantly, not for all people!). To the extent that we expect media effects to be exhibited in an obvious manner, we are missing opportunities to see other less obvious and perhaps more pervasive effects.

Myth 4. Violent media affect everyone in the same way.

Many people assume that, to be considered valid, media violence effects must be unidimensional—that is, that everyone must be affected by becoming more aggressive and violent. While that is one of the documented effects, it is not the only one. Meta-analyses (studies that analyze data presented across large numbers of studies) have shown that there are at least four main effects of watching a lot of violent media. These effects have been called the *aggressor effect*, the *victim effect*, the *bystander effect*, and the *appetite effect* (Donnerstein, Slaby, & Eron, 1994).

The *aggressor effect* describes how children and adults who watch a lot of violent entertainment tend to become meaner, more aggressive, and more violent.

The *victim effect* describes how children and adults who watch a lot of violent entertainment tend to see the world as a scarier place, become more

scared, and initiate more self-protective behaviors (including going so far as to carry guns to school, which, ironically, *increases* one's odds of being shot).

The *bystander effect* describes how children and adults who watch a lot of violent entertainment tend to habituate to gradually increasing amounts of violence, thereby becoming desensitized, more callous, and less sympathetic to victims of violence (both in the media and in real life).

The *appetite effect* describes how children and adults who watch a lot of violent entertainment tend to want to see more violent entertainment. Simply put, the more one watches, the more one wants to watch.

These effects are well-documented in hundreds of studies. What is less well known is which people are more prone to which effects (although these effects are not mutually exclusive). In general, females tend to be more affected by the *victim effect*, whereas males tend to be more affected by the *aggressor*, *bystander*, and *appetite effects*. But it is still unclear how to predict exactly how any given individual will be affected by any given media violence presentation. However, the fact that we cannot yet make this prediction reliably should not be taken as evidence that there is no effect. Furthermore, that everyone is not affected in the same way does not mean that everyone is not affected.

To understand where children learn their attitudes, values, and patterns of behavior, we can consider the effects of various proximal and distal sources of influence (see Figure 2.2). The family is closest to children, and children clearly have their attitudes, values, and behavior patterns shaped and modified by their families. The behaviors defined as "normal" within each family affect

Figure 2.2
Multiple spheres of influence on children.
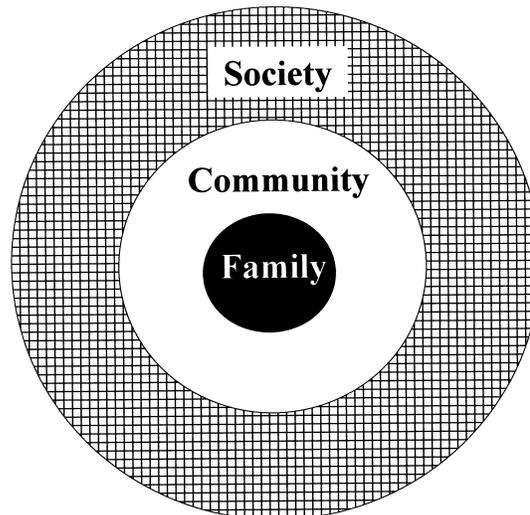
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the behaviors of the individuals within that family. Beyond the level of the family, the norms of the community affect the norms of families and individuals within it. Beyond the level of the community, the norms of society affect the norms of communities, families, and individuals within it. The media operate at this societal level, and media effects can be seen at all levels. Thus, the media can affect us not only one-on-one, when we are watching TV, for example, but they also affect us by affecting the norms, expectations, and patterns of behavior of our families and communities. This is another aspect of the media's subtlety—they can affect us through multiple directions at once. Although this makes it likely that everyone will be affected by violent media in some way, it also makes it likely that the effects may not be identical for all people.

Myth 5. Causality means "necessary and sufficient."

Determining if and when something "causes" something else is a problem that has plagued philosophers and scientists for centuries. In the social sciences, it is a surprisingly complex problem to solve. For many people, however, it has become oversimplified—something is a cause if it can be shown to be necessary and/or sufficient as a precursor. This position has been used to argue against the effects of media violence. Ferguson (2002), in a response to Bushman and Anderson's (2001) meta-analyses of media violence and aggression, stated that: (a) because humans have always been violent, "violent media, then, are not a necessary precursor to violent behavior" (p. 446), and (b) because many people who are exposed to media violence never commit violent behavior, "violent media, then, are not sufficient to cause violent behavior" (p. 446).

This argument seems, on its surface, to be reasonable. Yet this argument actually betrays a grossly oversimplified idea of causation. Consider, for example, a rock on the side of a hill. Assume that you give the rock a push and it begins rolling down the hill. Did you cause the rock to roll down the hill? By the argument laid out above, you did not. Rocks have rolled down hills for centuries without someone coming along and pushing them. Therefore pushing it is not necessary. Furthermore, many rocks that are pushed do not roll down hills. Therefore, pushing it is not sufficient. Although pushing the rock was neither necessary nor sufficient to make it roll down the hill, that does not mean that it was not a cause of the rock's beginning to roll.

Most complex issues of interest (such as aggressive behavior) are multicausal. In the present example, many other issues interact to determine whether the push you gave to the rock caused it to roll down the hill: the force of gravity, the mass of the rock, the shape of the rock (round rocks require less of a push than square ones), the friction of the hill surface, the slope of the hill surface, the direction of the push, the force of the push, how deeply the rock is embedded into the ground, and so on—all interact to determine

whether your push makes the rock begin to roll or not. Recognition that the issue is multicausal does *not* mean that your push is not one of the causes; in fact, it may have been a significant determiner or catalyst for the ultimate outcome, without which the other causes would not have been activated or sufficient. Aggressive behavior, too, is multicausal. Media violence is likely to be one of the pushes that interacts with other forces at work. In most situations, it is neither necessary nor sufficient. However, that does not mean that it is not a cause—it just means that it is *one* of the causes.

This conception of causality is similar to the idea of "proximate cause" in law, where the goal is to assign legal responsibility for an action. The proximate cause is the last action to set off a sequence of events that produces an injury. Yet, the goal of social science is not the same as that of law. Social science is concerned with all of the causes for some behavior, not only the necessary, sufficient, most recent, or largest causes. Because media violence has been shown to increase the likelihood of aggressive behavior, it can be a cause of aggressive behavior, even if it alone is not a necessary or sufficient cause.

Myth 6. Causality means immediacy.

Many people also expect that causality requires immediacy, as in a fall causing a broken bone. As noted in the smoking and cancer example, however, physical symptoms may become visible only after some threshold of disease process is attained, which may take a long time. With regard to media violence, many people assume that the effects must be seen in the short term in order to be caused by exposure. For example, Ferguson (2002, p. 447) states, "If media violence is a necessary and direct cause of violent behavior, a significant decline in violent crime should not be occurring unless violence in the media is also declining." We have already seen that media violence can be a cause without being a "necessary" cause. The issue of whether it is a "direct" cause seems to be the relationship between the amount of media violence and the incidence of violence in society. From the 1950s until about 1993, both the amount of media violence and the number of aggravated assaults rose in the United States (Grossman, 1996). In the latter half of the 1990s, the aggravated-assault rate fell somewhat while the amount of media violence stayed constant or increased (especially in video games—see chapters 4 and 7). This was taken by many to be "evidence" that media violence does not cause aggressive behavior.

Yet many causes have long-term effects. Consider smoking and lung cancer. Or consider water, salt, and your car. Over many years, cars that are repeatedly exposed to salt rust at a higher rate than those that are not exposed. But if you pour saltwater on your car, will you see it rust? No, it is a long-term effect. Some researchers have presented evidence that the effects of media violence may be long term. For example, Centerwall (1989) has documented

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that the murder rate appears to double about 15 years after the initial intro-
duction of television to communities or countries. It has been hypothesized
that about 15 years must elapse before the full effect is revealed, as that is the
time it takes for a generation to grow up with the violent media and to reach
a prime crime-committing age. If this hypothesis is correct, then we shouldn't
expect to see immediate effects. To the extent that we expect causation to
appear as immediate or short-term effects, we may miss a number of impor-
tant long-term effects.

Myth 7. Effects must be "big" to be important.

Many people have agreed that the accumulated research shows that there
is a systematic effect of violent media on aggressive behavior, yet they also
insist that it is not a large enough effect to be important. These discussions
often include a statistical approach. For example, Ferguson (2002) notes that
the amount of variance in violent behavior explained by media violence in
meta-analyses is somewhere between 1 and 10 percent. This means that if we
drew a circle representing all the reasons why someone might act violently,
media violence would account for between 1 and 10 percent of the pie. (It
should be noted that some meta-analyses have reported larger numbers, and
that there are a number of methodological reasons why these numbers may
be underestimates; see Paik & Comstock, 1994, for a detailed explanation.)
Ferguson (2002, p. 447) states that these effect sizes are "small and lack prac-
tical significance." Ferguson is not alone in making this type of value judgment
(e.g., Freedman, 2002), but it is unclear on what basis it is made. In epide-
miological terms, if only 1 percent of the people watching a violent TV show
become more aggressive, and one million people watch the program, then
10,000 people were made more aggressive. That does not seem to us to "lack
practical significance." Indeed, many (if not most) medical studies on the ef-
fects of drugs or diet are concerned with such small effects. Supplementing
one's diet with calcium can increase bone mass, but the effect is "only" about
one percent (Bushman & Anderson, 2001). Hormone replacement therapy in
women may increase the odds of breast cancer, but across the whole popu-
lation, the effect is probably less than one percent. A daily aspirin may reduce
the risk of heart attacks, but again, the effect is less than one percent (Hem-
phill, 2003). The medical profession regards these small effects as clearly im-
portant and having a great deal of practical significance.

In fact, there are probably hundreds of reasons for any aggressive act (e.g.,
abuse, poverty, history, gang membership, drug use, etc.). If there are hun-
dreds of reasons, then any single one of them should not account for much
variance. That media violence consistently appears to account for at least 1
to 10 percent of the effect is actually surprisingly large!

Summary

These persistent myths underscore the importance of thinking carefully about what the effects of media violence on individuals may be. We must understand that everyone may be affected, yet not in the same way. We must recognize that most children may be affected, although we may only notice the effects in extreme cases. Two developmental theoretical approaches show a great deal of promise for helping researchers to understand the effects of media violence on children: the developmental tasks approach, and the risk and resilience approach. Each will be described in turn, and their relevance to media effects will be discussed after each.

DEVELOPMENTAL TASKS APPROACH

Overview

Most children learn to talk. Most children become attached to a primary caregiver. Most children develop relationships with peers. Each of these capacities—language acquisition, development of attachment relationships, and the formation of peer relationships—is a *developmental task*—a capacity or skill that is important for concurrent and future adaptation (Sroufe, 1979). Masten and Braswell (1991, p. 13) define developmental tasks in the following manner:

In developmental psychopathology, adaptation is often defined in terms of developmental tasks. . . . The basic idea is that in order for a person to adapt, there are developmental challenges that must be met. Some arise through biological maturation, others are imposed by families and society, while others arise from the developing self.

Researchers have used this approach for at least two purposes. First, it provides a set of criteria by which to judge adaptation at any particular point in development. All children of a particular society are presumed to face these tasks at some point in development; thus, these tasks serve as a barometer from which to infer competence (Masten & Coatsworth, 1998). Second, the developmental task approach provides researchers and practitioners with a framework for understanding how development unfolds over childhood. For example, those interested in understanding the etiology of depression can use such a framework to inform how development went awry (Cicchetti & Toth, 1998).

A number of principles are specific to a developmental task approach. First, there is a hierarchy to these tasks (Sroufe, 1979; Sroufe, 1995). Different issues rise in importance depending on the developmental level of the child. Thus, for infants, the most important task that must be negotiated is developing a

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trusting relationship with a primary caregiver. As can be seen in Table 2.1, this task recedes in importance as other tasks arise.

This does not mean, however, that early tasks are irrelevant at later stages; to the contrary, later tasks are *contingent* on the success with which earlier tasks were negotiated. That is, any measure of competence is implicitly measuring the totality of adaptation that occurred prior to that measurement. This idea—that development is cumulative and builds on prior adaptation—can also be seen in Table 2.1. Here, the degree to which a child is able to form a trusting relationship with a primary caregiver has direct implications for how she negotiates the next tasks, such as active exploration of her environment. If a child has established a healthy sense of trust and this helped her to actively explore her environment, then the child is in a good position to deal with issues of self-regulation, which are typically encountered in the preschool period. Development proceeds in this way, building on past resolutions and negotiations.

Although current adaptation is predicated on prior adaptation, change is still possible; future developmental progress is not determined or fixed as a result of how earlier developmental tasks are organized (Sroufe, 1997). Rather, the successful negotiation of earlier tasks sets the child on probabilistic pathways for future competence, and these can change depending on the severity of contemporaneous circumstances (e.g., parental death; Cicchetti & Toth, 1998). The implication of this is that it is erroneous to think of adaptation (or maladaptation) as something a child "has." Instead, adaptation is a dynamic process, predicated both on past history and current context.

Finally, while change is possible, it is constrained by prior adaptation (Erikson, 1963; Sroufe, 1997). The longer a child is on an adaptive pathway (i.e., successful negotiation of prior developmental issues), the less likely it is that dire, current circumstances can bump the child onto a maladaptive pathway. This line of reasoning informs current efforts at early prevention projects (Zigler & Styfco, 2001).

Summary of Major Developmental Tasks

The effects that violent (or other) media may have on children and youth may be very different depending on the age of the child in question. As children face different developmental tasks, media are likely to have a greater or lesser effect depending on the specific issues the children are facing at that time. A brief summary of the key developmental tasks at each of five ages is presented below. Because of space limitations, we are unable to describe each task in detail, but have made an effort to include most of the major tasks at each age in a number of categories. The developmental tasks have been adapted from Masten and Braswell (1991), Sroufe, Cooper, and DeHart (1996), Sroufe, Egeland, and Carlson (1999), and Aber and Jones (1997).

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Table 2.1
Examples of Developmental Tasks

Key Developmental Tasks of Infancy (0–12 Months)
♦   Attachment to caregiver(s)

♦   Regularity of patterns

♦   Transition from reflex to voluntary behavior

Key Developmental Tasks of Toddlerhood (1–2½ Years)
♦   Curiosity, exploration, and mastery

♦   Differentiation of self from world

♦   Independence of actions, such as self-care and feeding

♦   Learning of language

Key Developmental Tasks of Early Childhood (2½–5 Years)
♦   Learning behavioral self-control and compliance with external rules

♦   Learning emotional self-control

♦   Learning gender roles and stereotypes

Key Developmental Tasks of Middle Childhood (6–12 Years)
♦   Learning how to build loyal friendships and to be accepted by peers

♦   Learning social rules and norms

♦   Adjusting to school

♦   Learning the importance of academic achievement and real-world competence

♦   Moral development

♦   Consolidating self-concept (in terms of the peer group)

Key Developmental Tasks of Adolescence (13–18 Years)
♦   Learning to build intimate and committed friendships/relationships

♦   Adjustment to pubertal changes

♦   Transition to secondary schooling

♦   Developing strong and coherent personal identity

Source: Adapted from Aber & Jones, 1997; Masten & Braswell, 1991; Sroufe, Cooper, & DeHart, 1996; Sroufe, Egeland, & Carlson, 1999.

Infancy (approximately 0–12 months)

During infancy, developing a trusting relationship with a caregiver is the key developmental task for healthy development. This is not to belittle other important developmental functions at this age. In physical development, the brain is undergoing a tremendous amount of neural network development. In cognitive development, infants exhibit learning by classical conditioning, operant conditioning, and imitative learning. In emotional development, the expression of emotions begins to develop, and we see the beginnings of emotional regulation.

Toddlerhood (approximately 1–2½ years)

During toddlerhood, children develop a number of capacities that could be affected by media. In cognitive development, children at this age develop the capacity for symbolic representation, including language. Children also grow in their ability to use language in a competent communicative manner to conduct conversations in a socially appropriate and culturally specific manner. Social gestures begin to emerge, including conventional social gestures and symbolic gestures. Children also begin to understand themselves as distinct from others. However, children's cognition is still constrained by limited memory abilities, a lack of logic, and a difficulty distinguishing what is real and what is fantasy.

In social development, children's independence of action and feelings of competence are particularly important during toddlerhood. This is also the period when children begin to be expected to learn to regulate and control their behaviors and expressions of emotions. Toddlers begin to acquire the rules, norms, and values of society through socialization processes. Children begin to look to others for cues about how to act in new or ambiguous situations, and begin to internalize the rules and values.

In emotional development, the so-called self-conscious emotions such as shame, guilt, and pride emerge. Early attachment relations and the further development of those attachment relations continue to be important.

Early childhood (approximately 2½–5 years)

In cognitive development, children at this age begin to learn to classify things by shared characteristics, such as color, size, and shape (classification). They also begin to be able to organize things along a particular dimension, such as size or height (seriation). Learning to deploy attention with intention begins at this age, although "the tasks of selecting information to attend to, staying focused on it, and ignoring irrelevant stimuli all pose challenges to preschoolers" (Sroufe et al., 1996, p. 348). Children at this age continue to have difficulty solving appearance-reality problems, and reality is usually defined by the surface appearances of things. In addition, children at this age tend to only be able to focus on one piece of information at a time.

In social development, children of this age begin to develop what has been called a theory of mind. The idea is that preschoolers begin to understand that some things happen that cannot be directly observed, such as the idea that other people can make errors. However, preschoolers continue to have difficulty differentiating their own point of view from that of others.

Children at this age begin to learn "scripts" for types of behaviors, such as what happens in restaurants or what happens to get ready for bed. Similarly, preschoolers also begin acquiring a gender-role concept and to conform to sex-typed behavior. Related to this, preschoolers begin to explore adult roles in their play, including identifying with adults and mimicking adult attitudes and behaviors.

However, probably the most important developmental task for early childhood is learning self-control and self-regulation, including reflecting on one's actions, delaying gratification, tolerating frustration, and adjusting or inhibiting one's behaviors to suit particular situational demands. These actions are part of the preschooler's growing social competence, where children begin to be able to coordinate and sustain interactions with individuals and groups of peers.

In emotional development, preschoolers begin to regulate their own emotions, including learning to be aware of the standards for behavior and using those standards to guide their words and actions. This internalization of standards is a critical part of learning to be able to feel genuine guilt or pride. True empathy and aggression begin at this age, by which we mean actions that have no other purpose than to commiserate with another person or to cause the other person harm or distress.

In moral development, children enter Kohlberg's stage 1 of preconventional moral reasoning, in which "good" behavior is based on a desire to avoid punishments from external authorities (e.g., Sroufe et al., 1996).

Middle childhood (approximately 6–12 years)

In cognitive development, children at this age begin to understand the distinction between appearance and reality and to look at more than one aspect of things at the same time. They also gain a sense of industry, which Sroufe et al. (1996) define as a basic belief in one's competence, coupled with a tendency to initiate activities, seek out learning experiences, and work hard to accomplish goals. Ideally these actions would lead to a sense of personal effectiveness.

In social development, learning how to form friendships is probably the main developmental task of middle childhood. This includes learning how to be part of a peer group, and how to learn and adhere to the group norms. These foster the development of the self-concept, in which one's sense of self is defined in part by the context of the peer group to which one belongs.

These peer relations are also important for moral development, in that the peer groups help to impart cultural norms and values. They also provide

opportunities for children to see other points of view and to grow in understanding emotion and having empathy for others. Children continue to develop through Kohlberg's preconventional moral reasoning (stage 2, in which actions are motivated by desires for rewards more than desires to avoid punishment) and begin conventional moral reasoning (stage 3, in which the child's goal is to act in ways others will approve of and to avoid disapproval). Although the peer group is important as part of the engine of moral development, it is important to remember that peer groups exist within cultures and usually reflect those cultures. In fact, Sroufe et al. (1996, p. 472) have stated clearly that "the particular moral principles that children adopt are largely a product of their culture."

Adolescence (approximately 13–18 years)

In cognitive development, adolescents gain the ability to think about abstract concepts and relationships among abstract concepts. Attention skills also make major gains during adolescence.

In social development, the main developmental task is probably learning how to achieve deep levels of trust and closeness with both same-sex and opposite-sex peers. At home, adolescents gain more autonomy and responsibility for homework, finances, jobs, and choices affecting their futures. Personal identity makes additional gains during adolescence, in which adolescents begin to find a fit for themselves within the larger social context as well as defining themselves as unique and independent of their peer groups. Body image also begins to become important as children adjust to pubertal changes.

In moral development, adolescents continue through Kohlberg's conventional moral reasoning (stage 4, in which actions are defined as good to the extent that they perform one's duties as prescribed by the laws of society), and may begin to develop into Kohlberg's postconventional moral reasoning stages.

Media Violence and Developmental Tasks Example

Using a developmental tasks approach can help guide research and theories about media effects in a number of ways. When asking the question, "how will this show/game/movie affect children?" it becomes clear that the answer is unlikely to be unidimensional. The effects are likely to differ greatly depending on the age of the child. Consider the following example taken from a nationally broadcast episode of professional wrestling (*WWF Smackdown*, October 7, 1999). Wrestling was selected as an example of media violence here because it is highly watched by children (it has historically been the highest-rated show on cable; Keller, 2002).

A male wrestler, Jeff Jarrett, is angry at his wrestler girlfriend, Miss Kitty, because she lost a wrestling match the previous week. In order to "get back on [his] good side," he requires Miss Kitty to participate in a mud-wrestling

match. He asks the reigning ladies' champion, Ivory, to stand near the ring to watch. He then announces that the goal of the match is to remove the opponent's shirt and bra in order to win. Jarrett then throws Ivory into the mud, to her apparent surprise. Miss Kitty immediately attacks Ivory, removing Ivory's dress. Meanwhile, Jarrett makes comments about women being the lowest form of life and the announcers make lascivious comments about the women's bodies. Ivory eventually removes Miss Kitty's bikini top, "winning" the match. Incensed older-women wrestlers arrive to confront Jarrett, who promptly throws them into the mud, while making comments about them being fat old sows. Ultimately, another lady wrestler, Chyna, sneaks up behind Jarrett, and pushes him into the mud. How would children who repeatedly watch shows like this be affected? The developmental tasks approach provides a framework to understand how children may be affected at different ages.

For infants, it is unlikely to have much effect, unless the parents watch programs like this so much that it interferes with their ability to care for the infant or disrupts the infant's ability to set regular patterns. For toddlers, who are beginning to use language, there were a number of derogatory terms used that children might learn. However, children at this age are just beginning to acquire the standards and values of society through the socialization process. This type of program shows violence as the solution to interpersonal conflict, as well as the "normality" of verbal and physical abuse toward women (especially scantily clad or nude women). Habituation and desensitization processes have begun.

In early childhood, where the main developmental tasks are about behavioral self-control, emotional self-control, and gender roles, this type of program may have a number of negative effects. Very little self-control is displayed. Words are not used to resolve problems, but only to enhance problems. In this specific example, the male was the one with all the power—he set the rules for the engagement, and even though Ivory was "tricked" into the ring, there was no reason she needed to comply with Jarrett's rules—yet she did. The entire episode was derogatory toward women, and even though some might say that the women won in the end, they did it on his terms, not theirs. Children at this age may begin to see women as needing to do whatever men say they should to gain the approval of men and that such behaviors are normal or natural.

In middle childhood, social rules and norms take on increased importance, and they are likely to learn lessons about the importance of physical domination and humiliation of others as an acceptable method of conflict resolution; that is, if they have not already habituated to this level of physical and verbal abuse and therefore do not see it at all. Furthermore, in this example, competence was defined only in terms of ability to fight (although there is also a subtext of sexuality as competence).

In adolescence, the major developmental task is learning how to have intimate and committed relationships. This type of show portrays the relation-

ships between men and women very stereotypically, where the male has the power and the females are submissive. Furthermore, it portrays physical aggression between the sexes as acceptable (and sexual). By this developmental stage, physical and verbal violence in the media will likely appear unremarkable—a natural part of our culture and only a mirror of our society.

We do not mean to suggest that watching one episode of any program is likely to have a large, immediate effect. But any immediate effects as well as long-term effects are likely to be different based on the age of the child, and the developmental tasks approach provides a framework for designing and testing hypotheses about the types of effects we might expect at different ages.

A RISK AND RESILIENCE APPROACH TO DEVELOPMENT

Another approach to viewing development is via a risk and resilience perspective (see reviews by Glantz & Johnson, 1999; Masten & Coatsworth, 1998). As opposed to the normative approach of the developmental tasks framework—every child is presumed to go through these phases, each with varying degrees of ease—a risk and resilience approach focuses on differential life experiences among children that may put them at risk for future maladaptation (risk factors), and those factors that serve to "protect" children from this risk exposure (protective factors). This approach is likely to be useful to help explain why we may see greater effects of media violence on some children than on others. Exposure to media violence is likely to be a "risk factor" for all children. However, some children may have additional risk factors that enhance the effects of media violence exposure, whereas other children may have protective factors that attenuate the effects of exposure to media violence.

One of the strongest and most robust findings in the risk and resilience field is that of the risk gradient, also called a cumulative risk model (Masten, 2001). The premise behind a cumulative risk model is simple: the more risks encountered by a child, the greater the likelihood of problematic functioning (Masten & Wright, 1998; Rutter, 2000; Sameroff & Fiese, 2000). Though simple in premise, the strength in such an approach lies in its acknowledgment that a true challenge to the developmental system comes from the interaction of multiple risk factors, and that this cumulative risk process is greater than any one single-risk factor in derailing development (Belsky & Fearon, 2002). Typical risk factors studied include marital discord, low socioeconomic status (SES), maternal psychological distress, single parent status/divorce, low maternal education, and exposure to violence (Masten, 2001; Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993; Rutter, 2000), as well as genetic risk factors for psychopathology or aggression (Rutter et al., 1997). Seldom do these risk factors occur in isolation; children experiencing one risk factor are likely also to experience a variety of other risk factors (Masten, 2001).

These studies have also found that there are individuals who aren't as vulnerable to risk factors as other individuals. This phenomenon, termed resilience, refers to the observation that despite experiencing severe adversity, some children display normal or above normal levels of competence across an array of domains (Masten et al., 1999). Early perspectives on resilience erroneously labeled such children as stress-resistant or invulnerable; such labels incorrectly implied that there was something special about these children, such as hardy constitutions that rendered the children impervious to stress and adversity (e.g., Anthony, 1974). Current thinking regarding resilience assumes that successful outcomes despite stress exposure arise out of dynamic interactions between the child and the environment (Masten, 2001). That is, resilience occurs as a result of multiple protective factors—genetic, interpersonal, contextual, and societal—that impinge on the child as well as interact with the child to counteract the negative effects of stress (Sameroff, Seifer, & Bartko, 1997).
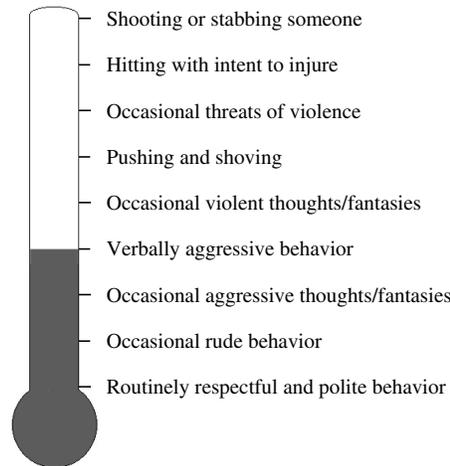
One of the interesting findings to come out of studies of resilience is that there are no extraordinary children or circumstances that account for successful development in the context of adversity; rather, factors such as good self-regulation, close relationships with caregivers and other adults, and effective schools are all implicated as characteristics contributing to resilience processes (Masten & Coatsworth, 1998; Masten & Reed, 2002). In fact, Masten has called this whole process "ordinary magic" (Masten, 2001) due to the normal adaptive processes needed to overcome risk.

With regard to media violence, our view is that exposure to entertainment media violence is a risk factor for aggressive behavior and other negative outcomes. The presence of this single risk factor is not sufficient to cause children to pick up guns and begin shooting. However, with each additional risk factor children have for aggressive behavior (e.g., gang membership, drug use, poverty, history of being abused, access to guns, etc.), the risk of that child acting violently compounds. In contrast, with each additional protective factor children have (e.g., stable family environment, good school performance, open communication with parents, etc.), the risk of violent behavior decreases.

This approach may serve to answer the comment most people make about media violence: "I watched a lot of media violence as a kid, and I never shot anyone." We need to remember that "shooting someone" is a highly extreme behavior. Most people will never engage in such an extreme behavior, and exposure to media violence is not such a powerful effect as to be able to make such extreme changes in people. One possible metaphor for this process is to consider the thermometer shown in Figure 2.3.[1] At the lowest end, a child's behavior is routinely respectful and polite. At the highest end, a child engages in the ultimate disrespectful behavior of shooting someone. It is likely that regular exposure to media violence might be able to shift someone about three spots on the thermometer. It certainly isn't a strong enough effect to shift

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Figure 2.3
Metaphorical aggressive behavior thermometer.

Shooting or stabbing someone

Hitting with intent to injure

Occasional threats of violence

Pushing and shoving

Occasional violent thoughts/fantasies

Verbally aggressive behavior

Occasional aggressive thoughts/fantasies

Occasional rude behavior

Routinely respectful and polite behavior

someone from routinely respectful behavior to shooting someone, but it might change someone to begin showing rude and verbally aggressive behavior. If, however, an individual starts out with other risk factors for violent behavior, and is already at the verbally aggressive spot on the thermometer, regular exposure to media violence may just add enough additional risk to get him to start pushing and shoving others around. The child may also have additional protective factors, which help to keep the level lower.

We have described a number of commonly held beliefs about media effects, and how those beliefs can hamper the ability to accurately predict and interpret the effects of violent media portrayals on children. These myths include the beliefs that media effects must be simple, direct, obvious, severe, and affect everyone the same way. They also include errors in the idea of what a "cause" must be, or how large an effect must be to be important. While the research is clear that media violence can have a negative impact on children, it has been less clear why some children may show a larger effect than others, or why some children may be affected in different ways. The persistence of the myths has made it difficult to understand why we should not expect children to be affected identically. To begin to come to a deeper understanding of the effects of media violence on children, we have provided a brief discussion of two developmental frameworks that can help us to understand how the processes of media effects and development interact. The developmental tasks approach helps to describe why children at different developmental stages would be expected to be affected differently. The risk and resilience approach helps to describe why children at any given age could be affected the same way, but that one child would show the effects behaviorally and another might

not. These two developmental approaches have great promise for the field of media effects research, as they help us to understand why children may be affected differently by exposure to media violence, and also why even though most children will not become seriously violent from exposure to media violence, they may nonetheless be affected in an important and negative manner.

NOTE

1. This metaphor is used in the understanding that it is imperfect. For example, this thermometer describes a hierarchy most typical of male aggression, whereas females are more likely to engage in relational aggression rather than physical aggression (e.g., Crick, 1995; Crick & Dodge, 1996). It is intended solely to help describe how different risk factors can increase the likelihood of more severe aggressive behaviors, and how protective factors can decrease the likelihood of aggressive behaviors.