

PART I

Conceptual Foundations



CHAPTER 1

Parenting Science and Emotion Regulation: Principles, Effects, Determinants, and Supports

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1.1 Parenting Science

Parenting is a vital status in the life course with consequences for parents themselves, but parenting is also a job whose primary object of attention and action is the child. Human children do not and cannot grow up as solitary individuals. Parenting exerts direct effects on offspring through genetic endowment as well as the experiences parents afford their offspring. Those experiences are instantiated in parents' cognitions and practices. Parenting also exerts indirect influences on offspring through parents' relationships with each other and their connections to community and culture. Parenting is fundamental to the survival and success of the human species. Everyone who has ever lived has had parents, and the vast majority of adults in the world become parents. Indeed, each day approximately three quarters of a million adults around the world experience the joys and rewards as well as the challenges and heartaches of becoming a new parent. Emotions constitute an essential constituent of parenting (Dix, 1991; Rutherford et al., 2015). A flourishing science of parenting is enjoying special popularity today in the academy and in popular culture. In consequence, a surprising amount of solid science (contra untethered opinion) is accumulating about parenting and associated emotions and emotion regulation.

Emotions and emotion regulation are vital to parenting, and this chapter assesses central features of parenting through the lens of emotions and emotion regulation. In doing so, the chapter pursues the following course. Substantive topics include principles of parenting and emotion regulation, parenting effects in emotion regulation, determinants of emotion regulation in parents (and children), and supports for parent and child emotion regulation. First, however, the chapter deconstructs relations between emotions and emotion regulation in parenting. Reasons of



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space constrain a full accounting of parenting, and emotions and emotion regulation in parenting, and so the following exposition is illustrative rather than exhaustive (see Bornstein, 2015, 2016, 2019a, for more detailed and comprehensive treatments).

1.2 Emotions and Emotion Regulation in Parenting

The intersection of parenting science and emotions encompasses parents' emotionality, emotional expressiveness, emotion regulation, and emotion socialization that mold affective family patterns vital to children's wholesome development. Emotions and emotion regulation in family life manifest in three ways: first in parents' own emotions and emotion regulation as adults, second in parents' emotions and emotion regulation in their parenting, and third in parents' parenting children's emotions and emotion regulation. These three topics guide the informational structure of this chapter. As to the first, for example, positive emotions buoy wellbeing and are associated with adjustment, serenity, meaningfulness, and satisfaction, whereas negative emotions undermine well-being and are associated with anxiety, stress, frustration, and anger (Leerkes et al., 2015; Schiffrin et al., 2010). As to the second, for example, people may become parents because of the expectation that parenting will be emotionally rewarding (Langdridge et al., 2005), and parental global emotion regulation is associated with adaptive parenting (Crandall et al., 2015; Shaffer & Obradović, 2017). As to the third, children reared by parents with good emotion regulation skills are better able to cope with their own emotions, develop more secure attachments, and fare better in many domains of development (Buckholdt et al., 2014; Han et al., 2015; Sarıtaş et al., 2013).

These three main issues – parenting, emotion regulation, and emotion regulation in children – are related to one another. The barebones version of a "standard model" of mediation in parenting science asserts that parenting cognitions generate, prompt, or direct parenting practices that ultimately affect child development (Figure 1.1; Bornstein et al., 2017). A modified standard model as applied to emotion regulation in parenting would contend that parenting emotion regulation generates parenting



Figure 1.1 Generic mediation model of parenting



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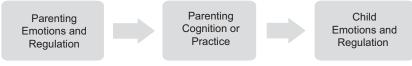


Figure 1.2 Parenting and emotions mediation

cognitions/practices which in turn influence child emotional regulation (Figure 1.2; Bariola et al., 2011; Crandall et al., 2015; Peris & Miklowitz, 2015; Rueger et al., 2011).

Pairwise components of this mediational model involving parenting, parenting emotion regulation, and emotion regulation in children have been submitted to cumulative meta-analyses. Zimmer-Gembeck et al. (2022) reviewed 53 studies published between 2000 and 2020 to quantify associations of parents' emotion regulation skills (e.g. ability to regulate negative mood or rely on cognitive reappraisal to regulate emotions) with positive and negative parenting practices (e.g. warmth versus hostility) and children's emotion regulation skills (e.g. difficulties with emotion regulation, internalizing symptoms, and externalizing behaviors). Several pertinent results emerged between parents' emotion regulation skills and their parenting practices. First, parents with more emotion regulation skills express more positive parenting practices. Second, parents with more emotion regulation skills express fewer negative parenting practices. Third, parents with more emotion regulation difficulties express fewer positive parenting practices. Fourth, parents with more emotion regulation difficulties express more negative parenting practices. In brief, parents with better emotion regulation skills or fewer difficulties express more positive parenting practices. Likewise, several pertinent results emerged between parents' emotion regulation skills and their children's adjustment. First, parents with more emotion regulation skills have children with fewer internalizing symptoms. Second, parents with more emotion regulation skills have children with more emotion regulation skills. Third, parents with more emotion regulation difficulties have children with more internalizing symptoms. Fourth, parents with more emotion regulation difficulties have children with more externalizing behaviors. Fifth, parents with more emotion regulation difficulties have children with poorer emotion regulation skills. In brief, parents who report more emotion regulation skills have children with more emotion regulation skills, fewer conduct problems, more prosocial behaviors with peers, and fewer internalizing symptoms.



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Notably, this meta-analysis supports several significant associations among constituents of the mediation model, but many were small in effect size and not all possible associations were found (e.g. no significant associations emerged between parents' emotion regulation skills with children's externalizing behaviors). Furthermore, only cross-sectional correlations were meta-analyzed (i.e. parents' influence on and socialization of their children is assumed when children could promote parents' emotions and emotion regulation).

In practice, a more realistic picture of mediation in parenting and emotions would be complexified by several factors:

- Likely valid mediation is a multi-step process so that child emotions/ behavior → parent physiology/cognition → parent emotion → parent emotion regulation → parent cognition and/or practice → child emotion regulation or adjustment.
- Associations between parental beliefs and behaviors have generated a
 mixed literature (Cote & Bornstein, 2000; Okagaki & Bingham, 2005):
 less evidence exists for relations between very general beliefs and
 behaviors, and stronger associations have been documented between
 conceptually corresponding specific beliefs and specific behaviors
 (Huang et al., 2005).
- 3. Individual differences in parenting are pervasive. Variation in mothers' subjective emotions across occasions (sampled throughout several days) predict motivation to engage or disengage with their infants as well as actual engagement or disengagement (Hajal et al., 2019).
- 4. Moderators may change the relation between elements in the mediation chain in so-called moderated mediation (Figure 1.3). Of a raft of potential moderators in Zimmer-Gembeck et al. (2022), measurement,

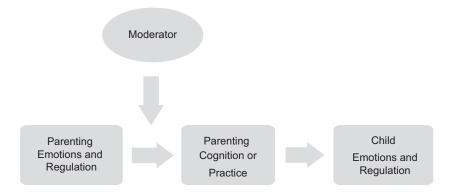


Figure 1.3 Moderated mediation in parenting and emotions



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child age, and participant risk status moderated effect sizes of associations of parents' emotions with their positive or negative parenting and children's emotions.

1.3 Principles of Parenting and Emotion Regulation

Parenting is instantiated in a plethora of cognitions and practices. Despite this diversity, classical authorities, including psychoanalysts, personality theorists, ethologists, and attachment theorists, historically conceptualized caregiving as trait-like and unidimensional, often denoted as "good," "sensitive," or the like (Ainsworth et al., 1978; Brody & Axelrad, 1978; Mahler et al., 1975; Winnicott, 1948/1975). Alternatively, child-rearing (including emotions and emotion regulation) reflects multiple constituents and interactions of parent, child, and context, and parents naturally hold a range of diverse emotion regulation cognitions and engage in a range of diverse emotion regulation practices and so do not only or necessarily believe or behave in uniform trait-like ways. Rather than employing a uniform style, parents flexibly change in parenting cognitions and practices as children age and with children of different temperaments, vary their approaches to emotion regulation depending on children's happy or sad or angry demeanor, and differ in their emotion regulation responses to varying situational constraints such as whether they are in public or in private. On this view, the contents of parent-child emotion regulation cognitions and practices are dynamic and varied (Bornstein, 2002, 2006). In essence, parenting generally, and emotions and emotion regulation in parenting particularly, are multidimensional, modular, and specific. This perspective has two significant implications: first, it supports identification and empirical focus on independent emotions and emotion regulation cognitions and practices, and second, it implies that specific emotion and emotion regulation parenting cognitions and practices link to the expression of specific domains of children's emotion regulation (see Section 1.4).

1.3.1 Parenting Cognitions and Emotion Regulation

Multidimensional, modular, and specific parenting cognitions may be classified by functions, types, and substantive topics. First, parenting cognitions serve many functions: They affect parents' sense of self, help to organize parenting, and mediate the effectiveness of parenting. With respect to emotion regulation, cognitions contribute to how and how much time, effort, and energy parents expend in emotion regulation for themselves and their children and help to form the framework in which



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parents perceive, interpret, and guide their children's emotion regulation. Next, parenting cognitions come in a wide variety of types, prominently goals, attitudes, expectations, perceptions, attributions, and actual knowledge of child-rearing and child development, all of which have instantiations in emotion regulation. For example, some parents' goals for their own parenting and for their children may be universal; after all parents everywhere presumably want physical health, academic achievement, social adjustment, economic security, as well as mature and stable emotion regulation for their children (however those goals are instantiated in different cultures, discussed later). African American, Dominican immigrant, and Mexican immigrant mothers in the United States all deem a common set of emotion regulation qualities (e.g. proper demeanor) desirable in young children (Ng et al., 2012). Other goals may be unique to specific groups. For example, some societies stress the development of emotion regulation through independence, self-reliance, and individual achievement in children, whereas other societies emphasize deriving emotion regulation through interdependence, cooperation, and collaboration in the group or society (Chen, 2023). Last, substantive topics in parenting cognitions include cognitions about parenthood generally, about parents' own parenting, about childhood generally, and about parents' own child(ren). All can refer to emotions and emotion regulation.

1.3.2 Parenting Practices and Emotion Regulation

Parents' practices constitute the largest measure of children's worldly experience. Like cognitions, parenting practices are multidimensional, modular, and specific, and parenting practices themselves may be classified into types, characteristics, and functions. First, a common core of types of parenting practices includes nurturant, physical, social, didactic, language, and material (Bornstein, 2015, 2019a; for other componential systems, see Bradley & Caldwell, 1995; Skinner et al., 2005). For example, language use in parenting is fundamental to child development and to the parent-child bond, and language is a principal mechanism used by parents to help regulate their children's emotions (Morris et al., 2017); language also helps children regulate their own emotions (Cole et al., 2010; Day & Smith, 2013). Second, prominent characteristics of parenting practices include differentiating obligatory versus discretionary, active versus passive forms of interaction, and the prominence of different parenting practices. Last, there is initial asymmetry in parent and child contributions to emotion regulation practices in that responsibility for emotion regulation early in development appears to lie unambiguously with parents, but children play more anticipatory roles as they develop. Functions of parenting practices are elaborated in Section 1.4.



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1.3.3 Emotion Regulation Cognitions and Practices: Common Features

Meaningful parenting cognitions and practices meet several psychometric criteria. One has to do with variation. Parents vary in terms of how they express cognitions, how often and long they engage in practices, and how they interpret and invest meaning in both (Calkins, 1994; Diaz & Eisenberg, 2015). For example, considerable individual variability characterizes developmental trajectories of emotion regulation in children across the ages of 4-7 years (Blandon et al., 2008). A second psychometric criterion has to do with developmental stability (consistency in individual parents over time) and a third with continuity (consistency in group mean level over time; Bornstein et al., 2017). For example, the development of emotion regulation is dynamic on three levels: rapid changes in spatial and temporal dynamics across multimodal systems underlying emotion regulation, slowly emerging changes in emotion regulation over periods of time and development, and changes in emotion regulation across contexts (Dennis-Tiwary, 2019). A fourth psychometric characteristic of parenting concerns covariation among parenting cognitions and among parenting practices. Particular cognitions and particular practices are free to vary with different children, at different times, in different situations, and so forth (Bornstein, 2015).

1.4 Parenting Effects in Emotion Regulation

Parenting has twofold significance: parenting is a salient phase of adult life, and parenting is an instrumental activity with respect to offspring. In brief, parenting is for parents, and parenting is for children. In consequence, effects of parenting on children and child development constitute critical desiderata. Here the distinction between direct and indirect effects of parenting is meaningful as are several operational principles in parenting effects, notably specificity, timing, thematicity, moderation, meaning, transaction, and attunement. Each is addressed briefly with examples from emotions and emotion regulation.

1.4.1 Direct and Indirect Effects of Parenting and Emotion Regulation

Direct influences of parent cognitions and practices reflect, for example, scaffolding, conditioning, reinforcement, and modeling; indirect effects include, for example, opportunity structures parents provide (Bornstein, 2013a) and relationships parents or family members have with one another that spill over to children (McHale & Sirotkin, 2019). The validity of parenting effects is supported with correlational and experimental evidence. Children reared by parents with good emotion regulation skills



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regulate their own emotions better (Leerkes et al., 2017), and parents' positive emotional expressions toward their children relate to children's later more positive peer relationships (Paley et al., 2000). Several pathways by which parenting-related emotions and their regulation likely shape child development have been hypothesized (Leerkes Augustine, 2019). First, parenting-related emotions and regulation could relate to children's emotions or emotion regulation through synchronization of mutual biological rhythms (Feldman, 2007; Moore, 2009). Second, as spelled out in the mediation model, parenting-related emotions and regulation could link to child outcomes through parenting cognitions or practices. Well-regulated or child-oriented parent emotions could engender more positive parenting, which in turn shapes adaptive emotions and emotion regulation in children. Third, as spelled out in the moderatedmediation model, different parenting-related emotion or regulation skills could alter how parenting practices relate to child emotions and emotion regulation (Darling & Steinberg, 1993; Grusec & Goodnow, 1994). Parenting practices embedded in positive, contra negative, parental emotions render children more open to parental socialization.

Most studies of parent-child relationships have employed correlational designs: put simply, in such study designs parents who do more (or less) of something (emotion regulation) have children who do more (or less) of a related something (emotion regulation). For example, mother-child interactions involving positive emotions correlate with greater effortful control and compliance to parental requests (Kochanska & Aksan, 1995), greater social competence (Denham et al., 1997), and fewer behavior problems (McCoy & Raver, 2011) in children. However, the sizes and directions of zero-order correlations between parent cognitions or practices and child characteristics vary depending on which parent and child variables are measured (echoing the cognition-practice issue), the way the two are measured, the length of time between parent predictive and child outcome measurements, what kind of analyses are conducted, which types of children or families living in which circumstances are studied, and whether potential confounders are controlled (Bornstein, 2013b). It may be true that parents influence children, but correlation does not prove causation, the arrows of influence in a simple association may run in either or both directions (viz., that parents influence children and children influence parents), and associations between parents' child-rearing practices and child characteristics could arise from shared third familial (parents and their children share genes) or extrafamilial factors (parents and their children share ethnic group or socioeconomic status membership). To obviate these critiques of parenting effects as mere epiphenomena, some more determinative correlational designs have included biological-adoptive comparisons (which separate the effects of environment and genetics, discussed later).



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Experimental designs attempt to confirm causal relations between parenting and child development. Experiments in which parents are assigned randomly to treatment versus control groups with resulting changes in the beliefs or behaviors (e.g. emotion regulation) of the parents (and their otherwise untreated children) in the treatment relative to the control group make stronger statements about parenting effects. This literature in emotion regulation boasts natural, designed, and intervention experiments. Studies of children whose genetics differ from those of their parents provide naturally occurring means of evaluating the impacts of parenting experiences vis-à-vis hereditary endowment on child development. In adoption experiments, one group of children might share genes and environment with biological parents, another genes but not environment with biological parents, and still another environment but not genes with adoptive parents (Asbury et al., 2003; Muller et al., 2013). Designed experiments that randomly assign human families to treatment versus control groups and intervene with the parents but do not simultaneously treat the children have shown that, when the treatment alters parental practices toward children in specified ways, children change correspondingly (Weisman et al., 2012). Finally, interventions with parents have two interpretations. Interventions are practical guides to improve parenting clinically and to inform more effective policy (see Section 1.6). However, intervention trials are also readily interpreted as experimental manipulations that test parenting effects (Bornstein et al., 2022a; Lunkenheimer et al., 2008).

1.4.2 Specificity, Timing, Thematicity, Moderation, Meaning, Transaction, and Attunement

A common assumption in parenting study is that the overall level of parenting (involvement, stimulation, what have you) affects the child's overall level of development. By contrast, increasing evidence suggests that more sophisticated and differentiated processes govern parenting effects. The specificity principle states that specific cognitions and practices on the part of specific parents at specific times exert specific effects in specific children in specific ways (Bornstein, 2002, 2015, 2019b). For example, mothers' emotional happiness during interactions with their children predicts fewer behavior problems in children over time but only in children already low in behavior problems (Denham et al., 2000). Parents' self-reported expressions of negative emotions are associated with their preschoolers' use of more maladaptive emotion regulation behaviors, higher negative emotionality, and higher externalizing symptoms, but are unrelated to a physiological measure of children's adaptive