



YOUNG CHILDREN AND POSITIVE CHARACTERISTICS

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The research: At 4 months, infant information-processing ability was assessed in the laboratory; at 1 year, the size of children's vocabulary was evaluated; at 4 years, children's intelligence was tested. At 4 months and at 1 year, mothers' didactic interactions with their children were recorded during naturalistic home observations: These included mothers encouraging children to attend to and gain a greater appreciation of objects, properties, and events in the environment by mothers pointing, labeling, showing, demonstrating, and the like.

An analysis of associations among these several measures revealed three noteworthy findings:

- First, children's cognitive performance as infants predicted the sizes of their productive vocabulary at their first birthday and their intelligence test scores as preschoolers. Specifically, infants were assessed in a laboratory "habituation" test. When a visual image first appears, a baby will normally attend to it; after all, it is new and novel. If, however, the same image is presented repeatedly, the baby's response to it — measured baby's visual attention — wanes. This decrement in attention indicates habituation. Some infants are fast, but others are slow in habituating. Children who habituate more efficiently in infancy possess more vocabulary in toddlerhood and score higher on intelligence tests in childhood.

- Second, mothers' didactics toward their children contributed to children's cognitive outcomes at both 1 year and 4 years. Mothers who encouraged their children's involvement in the world and who named objects had toddlers with larger expressive vocabularies and preschoolers who scored higher on the standardized IQ test.

- Third, infants affected their mothers' didactic activities

over time. Babies who habituated to the laboratory stimuli more efficiently had mothers who engaged them more in home didactic interactions eight months later. In short, children influenced their own development by influencing their parents. The child characteristics that influence adults may be obvious ones (age, gender, physical appearance), or they may be subtle ones (temperament or information processing capacity, such as described here).

This empirical example illustrates the three general sources of positive characteristics and values in young children: Children contribute directly to their own development; children contribute indirectly to their development by the influence they exert on their parents or caregivers; and parents and caregivers contribute directly to children's development.

HISTORY AND METHODOLOGY

Surprisingly little is known scientifically about the threads that are woven into the fabric of children's positive development. Such understanding requires longitudinal research, and longitudinal study is painstaking, expensive, and time consuming.

The discipline of developmental science is still quite young. Until the 20th century, psychology was part of philosophy, and philosophers of different stripes asserted that human development was subject to one or another influence and followed one or another path. John Locke (1632-1704): the infant mind is a "tabula rasa"; Immanuel Kant (1724-1804): no, the infant is born with innate knowledge; Thomas Hobbes (1588-1679): the life of man is "solitary, poor, nasty, brutish, and short;" J.J. Rousseau (1712-1778): no, children are "noble savages," born perfect in the state of nature.





With Charles Darwin, developmental science began formally, approximately 100 years ago. In 1877, Darwin published *Biographical Sketch of an Infant*, about his son, Dobby. In the succeeding half-century, many observational reports of children’s development were published, normally by the scientist parents. However, these “baby biographies” were unsystematic and often included less than objective components. In the words of one critic, “No one can know as well as the attentive parent the subtle and cumulative changes that take place in the world of the child ... but, on the other hand, no one can distort as convincingly as a loving parent.”

This subjective tradition was replaced with systematic experimental and observational studies of children and child development only in the middle of this century. As a consequence, the cumulative number of intellectual generations of practicing developmental scientists is only about three. All previous work in this field, since at least Plato’s *Laws*, had an anecdotal cast at worst, or was based on some principled philosophical stance at best.

MECHANISMS AND PROCESSES

Furthermore, to fathom just how characteristics or experiences of young children relate to their later functioning — that is, to identify the underlying mechanisms and processes — we need to distinguish stability in individuals from the roles of external effects.

Stability describes consistency in the relative ranks of individuals with respect to the expression of an ability or performance over time. A stable ability would be one that some infants perform relatively well when they are very young and again perform well when they are children and older. The fact that habituation in infancy predicts intelligence in childhood presumably means that infants carry

something that is stable and contributes to their development. Indeed, stability entices researchers toward the belief that endogenous mechanisms or processes are at work, that stability is in the child.

It is, however, impossible to characterize any child outcome as reflecting mechanisms or processes exclusively in the child without considering the influences of experience. Experiences vital to development can be early occurring and determinative; they can be contemporaneous (when later experiences are unique and/or override earlier ones); or they can accumulate (to be effective, some experiences may need to recur). To understand the positive characteristics and values of young children and to

fathom their sources, we need to isolate and measure stabilities in the child and differentiate among different models of experience, things that have not been done enough.

These points about history and methodology explain the complexity that faces us in the quest to identify exactly what is known about young children in relation to the development of positive characteristics and values in later life. They also stand apart from the consistently negative focus of earlier longitudinal work. Researchers and policy makers alike have been almost wholly occupied with children’s “disorders, deficits, and disabilities,” even if they have had the salutatory goals in mind to develop and effect interven-

tions, remediations, or preventions. Focusing the Rosalynn Carter Symposium on the development and promotion of positive characteristics and values in children is quite forward thinking.

POSITIVE CHARACTERISTICS AND VALUES IN YOUNG CHILDREN

Given this thumbnail history, the difficulty of disentangling, much less proving, longitudinal effects, and the

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focus on negative outcomes, it is well to bear in mind just how much developmental science could conceivably have contributed to what we know empirically about young children in relation to their developing positive characteristics and values in later life. Nonetheless, we can ask what characteristics and values we would like to see develop in our children, which characteristics and values are modifiable, and just how parents and family, social context, and environment can foster those characteristics and values.

We can point to what developmental science has identified. The following list of attributes is not meant to sound overly generic, although perhaps some strike us as such.

Moreover, positive development is always “in the parental eye”: Some parents may seek control of emotionality in their children, others career success, and for still others, eye-hand coordination in batting matters most. The empirical literature offers this list, in no particular order:

- We want children who do not have health problems or any disorders, and, reciprocally, it is positive to possess desirable physical attributes.
- We want children who appear to have significant coping skills and resilience; coping implies the ability to interact with the environment positively, constructively, and adaptively, especially under conditions of stress, threat, or harm; resilience implies the ability to recover and regain equilibrium in face of negative environments and experiences.
- We want children with good social skills, including social cognition and social adjustment — understanding one’s place in the world and negotiating social interactions well.
- We want children who achieve educational success, not only in school, but also in the intrinsic motivation to want to succeed in school, on the job, or elsewhere.



- We want children who exhibit an understanding and satisfaction with one’s self in terms of the development of a constructive self-concept, possessing self-efficacy, an ability to self-regulate, and positive self-perceptions.
- We want children to have feelings of security — to have a very, very close bond with at least one caregiver in one’s life. (It has been contended that probably the worst thing for a child, with the exception of an organic problem or physical trauma, is not to have a parent or significant other who really cares.)

- We want children to possess whatever it is that intelligence tests measure, for in our world intelligence predicts school achievement and eventual social status and income. Under the same rubric, it never hurts to possess an identifiable talent — intellectual, artistic, musical, or athletic. This often means being singled out and considered in some way special, a condition that can become a positive part of one’s being.
- Finally, we want children to possess a temperament that has

a positive affect, an approach orientation, and adaptive style — having an “easy and winsome personality” in lay terms.

POSITIVE CHARACTERISTICS AND VALUES IN LATER LIFE

Although parenting is a somewhat mystifying subject — almost everyone has opinions about parenting, but few people agree — one thing is sure: It is the principal and continuing task of parents in each generation to prepare children of the next generation for the physical, economic, and psychosocial situations in which those children must survive and hopefully thrive. Many factors influence the



development of children, but parenthood is the “final common pathway” to childhood oversight and caregiving, development and stature, adjustment and success. The fit is neat because not only is the sheer amount of interaction between parent and offspring greatest in childhood, but childhood is the time when human beings are particularly susceptible to external experiences. Indeed, the opportunity for enhanced parental influence, and prolonged learning, is thought to be the evolutionary reason for the extended duration of human childhood.

It is a biological fact that human children do not — and cannot — grow up as solitary individuals; human young are totally dependent on their parents for survival. Childhood is the time when human children also first make sense of and understand objects in the world, forge their first social bonds, and first learn how to express and read basic human emotions. In childhood, individual personalities and social styles also first develop. Parents escort children through all these dramatic “firsts.” The influences of these developments then reverberate through time: in the view of many social theorists, the child’s first relationships with parents set the tone and style for the child’s later social relationships with all others.

Parenting therefore constitutes an all-encompassing ecology of a young child’s development. Mothers and fathers, as well as siblings, other family members, and even children’s nonfamilial day care providers guide the development of children via many direct and indirect means.

Direct effects are of two kinds: genetics and experience. Of course, biological parents endow a significant and pervasive genetic makeup to their children, with its beneficial or other consequences for the expression of children’s proclivities and abilities. Beside genes, however, all prominent theories of human development put experience in the world as either the principal source of individual growth or as a major contributing component. It falls to parents (and

other caregivers) to shape most, if not all, of young children’s experiences, and parents directly influence child development both by the beliefs they hold and by the behaviors they exhibit. Parenting beliefs include perceptions about, attitudes toward, and knowledge of all aspects of parenting and childhood, and each plays a telling part.

First, how you see yourself *vis-à-vis* children can lead to expressing one or another kind of affect, thinking, or behavior in childrearing. Moreover, how you see childhood functions in the same way: Parents who believe that they can or cannot affect their child’s temperament or intelligence often modify their parenting accordingly. (Unfortunately, by one recent account, one in four parents in the U.S. today thinks that a baby is born with intelligence that cannot be increased or decreased by how those parents interact with the baby.) Finally, how you see your own children has its special consequences: Parents who regard their child as being difficult are less likely to pay attention or respond to their child’s overtures, and their inattentiveness and nonresponsiveness can then foster further temperamental difficulties.

Perhaps most salient in the phenomenology of childhood are parents’ behaviors, the tangible experiences parents provide children. Virtually all of young children’s worldly experiences stem directly from interactions they have within the family. The contents of parent-child interactions are varied; some are compulsory, and others are discretionary. A small number of central domains of caregiving have been identified, however, as a prominent universal “core” of the childcare repertoire; they are nurturant, social, didactic, and material caregiving.

■ NURTURANT CAREGIVING meets the biological, physical, and health requirements of children. Parents are responsible for promoting children’s wellness and preventing their illness. Parents in virtually all higher species nurture their young, providing sustenance, routine care, protection, supervision, grooming, and the like. Nurturance is prereq-

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■ **SOCIAL CAREGIVING** includes the visual, verbal, affective, and physical behaviors parents use to engage children emotionally and manage their interpersonal exchanges. Through sensitivity and responsiveness, positive feedback, openness and negotiation, listening, and emotional closeness, parents make their children feel valued, accepted, and approved of. Social caregiving also includes helping children to regulate their own affect and emotions, and influencing the communicative styles and interpersonal repertoires which children bring to form meaningful and sustained relationships with others.

■ **DIDACTIC CAREGIVING** consists of the variety of strategies parents use to stimulate children to engage and understand the environment and to enter the world of learning. Didactics means introducing, mediating, and interpreting the external world to the child; teaching, describing, and demonstrating; as well as provoking or providing opportunities to observe, to imitate, and to learn.

■ **MATERIAL CAREGIVING** includes the ways in which parents provision, organize, and arrange the child's home and local environments. Adults are responsible for the number and variety of inanimate objects (toys, books, tools) available to the child, the level of ambient stimulation, the limits on physical freedom, and the overall safety and physical dimensions of children's experiences.

Caregiving behaviors and styles constitute direct experience effects of parenting. Mothers and fathers exert indirect effects in childrearing as well. Parents can indirectly influence their children by virtue of their influence on each other, for example by marital support and communication. Women who report having supportive relationships with husbands, for example, are more attentive and sensitively responsive to their children. By contrast, quarreling

parents are likely to convey confusing messages to their children, have less time for and become less involved in their children's lives, and engage in more hostile relationships with their children. Children in the back seat of a car overhear everything parents say in the front seat.

Parental influences on children operate on two additional principles. Sorrowfully, it is not the case that overall level of parental stimulation directly affects children's overall level of functioning and compensates for selective deficiencies: Simply providing an adequate financial base, a big house, or the like does not guarantee, or even speak to, a child's development of empathic personality, verbal competence, or other desirable characteristic or value. The *specificity principle* holds that specific experiences parents provide children at specific times in development exert specific effects over specific aspects of child growth in specific ways. (This is apparently counterintuitive because nearly 90 percent of parents in the United States simplistically think that the more stimulation a baby receives, the better off the baby is.)

In fact, parents and caregivers need to carefully match the amount and kinds of stimulation they offer to the child's level of development, special interests, temperament, mood at the moment, and so forth. Often, it is not simply that positive is best, but the fit must be good. Between temperament and environment, for example, inhibited children do less well by some social criteria, but they also get into fewer scrapes.

The *transaction principle* asserts that the experiences parents provide their children shape the characteristics and values of children through time just as the characteristics and values of children shape their experiences. As noted, children influence which experiences they will be exposed to; children also interpret similar experiences differently, and therefore ultimately how those experiences affect





them. As child and parent bring distinctive characteristics to their mutual interactions, and because child and parent change as a result of those interactions, both parent and child enter future interactions as somewhat “different” individuals.

The result of the intersection of the transaction principle and the specificity principle is a degree of uncertainty in what is predictable about the characteristics and values of children, their origins, and their outcomes.

There are many pathways to success. Some populations we expect to fail miserably (teen parents, children born to crack mothers), and those we think should have it made (the educated and affluent), almost always show a surprising amount of diversity of outcome. To detect regular relations between the antecedents of parenting, experience, and environment, and the outcomes of positive child characteristics or values, we need to find precisely the right combinations of independent and dependent variables. This is not easy.

Parents are the proximal protectors, providers, and proponents of their own progeny; parents are children’s primary advocates and their front-line defense. Parenting is not easy. From the start, parenthood is a 168-hour-a-week job. Few sentient parents want to abrogate their childrearing responsibilities; quite the opposite, virtually all want only the best for their children. Parents must be empowered to provide children with experiences and environments that optimize development.

CONTEXT AND ENVIRONMENT

The parent-child dyad is embedded in a nexus of multiple layers of contexts and environments. Context and environment contribute in equally critical ways to promote and support positive characteristics and values in children. For example, parents develop feelings of competence and satisfaction through social support, contact with advice

givers, role models, and persons who share their responsibilities. Mothers with social support (especially from husbands) feel less harried and overwhelmed, have fewer competing demands on their time, and as a consequence are more sensitive and responsive to their children. Quality day care, positive peers, appropriate stimulation, adequate schools, and community opportunities have all been shown to facilitate positive development in children.

Minimal economic security is also critical: Poverty puts children at tremendous disadvantages on all fronts.

THE PRODUCTS OF SYSTEMS

No one factor is determinative and trumps all others in promoting the development of positive characteristics and values in children, but rather, in a comprehensive systems view of human development, many factors — environment and experience, genetics and biology — influence development, and a greater understanding of the role of each improves explanatory power.

To understand the nature of positive characteristics and values, and the childhood and parent-child relationships within families that give rise to them, requires of us a multivariate and dynamic stance. Only by taking multiple factors into consideration can we appreciate individual-, dyadic-, and family-level contributions to child development, as well as reflect on the embeddedness of the family within its many relevant extrafamilial systems. So, mature characteristics most certainly possess a partly biological basis: shyness, risk taking, intelligence, criminality, and alcoholism are among them.

Unquestionably, peer dynamics influence children, and children are susceptible to influences from outside the family. But people are also influenced by the individuals they spend the most time with in their impressionable youth, their own parents.

The dynamic aspect involves the different develop-

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mental trajectories of individuals in the family. Understanding a child is akin to “hitting a moving target,” the ever-changing child developing in fits and starts at his or her own pace. To exert appropriate influence and guidance, parents must constantly and effectively adjust their interactions, cognitions, emotions, affections, and strategies to the age-graded activities, abilities, and experiences of their children. It is no wonder that children do not come with an operating manual; it would have to be as encyclopedic as life itself.

The multiple pathways and temporal dynamics of child development make for a quite messy situation, and they make everyone’s job harder. Researchers have to develop new paradigms and methodologies to accommodate this (seeming) chaos, and this perspective makes the development and implementation of effective programs and policies for children “nightmarish.” Some will fail. Yet, only by addressing this complexity can we understand more that is valid about children, parents, and families.

The good news is that, in each one of these domains — the child, parents and family, context and environment — there are many attributes that are modifiable. Indeed, we can promote not just some, but almost all of the characteristics and values we want to see in our children. For example, intelligence is inherited in part, but to be inherited does not mean to be immutable. Longitudinal studies of intelligence demonstrate that individuals change over time. Heritable traits depend on learning for their expression, and they are subject to environmental effects. Similarly, only fatalists uncritically accept the developmental contexts in which they live. Those who are not take the social and political steps to organize their children’s day care, to promote their children’s associations with positive peers, to construct environments with appropriate stimulation, to make sure their community affords adequate schooling, and to enroll their children in growth promot-

ing extracurricular activities (church or temple, Boy or Girl Scouts, Little League or soccer).

SCIENCE, POLICY, AND VALUES

Developmental science is young, and admittedly its ability to identify and measure influences is primitive, perhaps too premature to make definitive statements about how positive characteristics and values are formed, never mind about ensuring successful aging. And yes, child-rearing is complicated to say the least.

Inevitably, human development is influenced by genetic endowment, by early determination, and by the contexts in which individuals adapt.

Therefore, policy sometimes needs to focus on interventions that attempt to cure the individual, but sometimes, too, to provide experiences that are valuable in their own right because they improve current conditions.

As our children mature, parenthood and citizenship ultimately mean having facilitated children’s self-confidence, capacity for intimacy, achievement motivation, pleasure in play and work, friendships with peers, and continuing academic success and fulfill-

ment. It is only through very complex interventions, however, that parent and family, context and environment can be brought to bear on the route and terminus of children’s development. That these factors challenge us does not mean that we should shrink from them. The positive characteristics and values of the next generation rest in the balance.

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