

# Handbook of Dynamics in Parent-Child Relations

## Qualitative Methods for Inductive (Theory-Generating) Research: Psychological and Sociological Approaches

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Book Title: Handbook of Dynamics in Parent-Child Relations

Chapter Title: "Qualitative Methods for Inductive (Theory-Generating) Research:  
Psychological and Sociological Approaches"

Pub. Date: 2003

Access Date: October 15, 2013

Publishing Company: SAGE Publications, Inc.

City: Thousand Oaks

Print ISBN: 9780761923640

Online ISBN: 9781452229645

DOI: <http://dx.doi.org/10.4135/9781452229645>

Print pages: 373-439

This PDF has been generated from SAGE knowledge. Please note that the pagination of the online version will vary from the pagination of the print book.

<http://dx.doi.org/10.4135/9781452229645.n18><http://dx.doi.org/10.4135/9781452229645.n19><http://dx.doi.org/10.4135/9781452229645.n20>  
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## Chapter 18: Qualitative Methods for Inductive (Theory-Generating) Research: Psychological and Sociological Approaches

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For much of its history, research in parent-child relations has been a theory-testing enterprise. Socialization theories, with roots in psychoanalysis, behaviorism, and structural functionalism, were especially important in providing early research questions, variables, and causal hypotheses. Parental behaviors and children's behaviors were interesting only to the extent that they could be conceptualized, respectively, as causes or outcomes of a socialization process that was assumed to have taken place. The specific variables that were identified as the focus of theory testing were deduced from theories in vogue during a particular era (Grusec, 1997). More recently, theories having to do with bidirectional and systemic effects have been the focus of testing (Cook, [Chapter 17](#), this volume). Alongside the theory-testing tradition of parenting research has been a vein of research concerned with generating new theory. We use the term “theory” broadly to include not only conceptual frameworks, explanations, constructs, and models of social processes but also codes, categories, and entire coding systems that give meaning to data. This theory-generating tradition has not been well articulated, but its presence can be found in critiques of theory, critiques of the validity of measures and variables that enter into statistical analyses, and, more generally, in research that introduces conceptual and methodological innovations that elevate the understanding of process in parent-child relations.

The field of children's social development has been admonished recurrently for neglect of [\[p. 374 ↓ \]](#) what has been called the “descriptive stage” of investigation and for leaping prematurely into the theory-testing phase of the research process

(Bronfenbrenner, 1979; McCall, 1977). In this view, many of the phenomena that psychologists had chosen to explore with rigor and precision may not have been the processes that mattered most in social development.

**Authors' Note:** We would like to acknowledge with gratitude helpful suggestions from Teresa Arendell, Joan Grusec, Brian Haig, Jonathan Tudge, and Jaan Valsiner. Preparation of this chapter was supported by a grant from the Social Sciences and Humanities Research Council of Canada.

The field of parent-child relations also has seen frequent calls for conceptual innovation that would shed light on parent and child processes that were neglected during the unidirectional era of socialization research. Among the earliest concerns was for research on developmental change (Maccoby, 1984) and on the contexts of parent-child interactions, with particular attention to the meanings parents attributed to children's transgressions (Grusec & Kuczynski, 1980). Observational research on parent-child interactions in natural settings hastened the pace of discovery of new phenomena and new questions (Maccoby & Martin, 1983) concerning the child's active role in social interactions. Moreover, researchers began to notice the lopsided nature of the knowledge that had been generated. Much had been discovered about parent and child behaviors during interaction, but there had been no comparable investment in understanding the thoughts and cognitions that parents and children bring to their interactions. Research on the "thinking parent" (Parke, 1978) and the growth of the field of parental cognition (Siegel, McGillicuddy-Delisi, & Goodnow, 1992) has begun to fill in our understanding of the parents' thought processes. However, this has not been matched by research on the "thinking child" in children's interactions with parents. The concern that the social sciences have neglected children's own perspectives and experiences of relationships, environments, and events is being increasingly voiced within psychology (Garborino & Stott, 1992; Hogan, Etz, & Tudge, 1999) and sociology (James & Prout, 1990).

Most recently, it has been argued that empirical discoveries from several decades of research on parent-child interaction need to be consolidated in new models of the proximal processes of development. Proximal processes are the "interactions between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate environment" (Bronfenbrenner, 1995, p. 620). In the context of

parent-child relations, these include understanding parent and child agency, the nature of bidirectional influence, the nature of the parent-child relationship's context, the nature of power relations, and how these processes manifest themselves in different types of families and in different cultures (Kuczynski, [Chapter 1](#), this volume). All of these areas call for a research program aimed at the discovery of new theory, new hypotheses, and the creation of new categories for describing and understanding processes in parent-child relations. This challenge, should it be taken up by researchers, involves a methodology of theory generation rather than theory testing. Qualitative methods are well suited to the task of generating theory.

“Qualitative” is a problematic term that deals with a vast matrix of disciplinary orientations, epistemologies, theories, methods, and continua. Hence, stating a definitive characterization of qualitative methods is extremely challenging. Denzin and Lincoln (2000) offer a generic definition of qualitative research as “an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret phenomena in terms of the meanings people bring to them” (p. 3). The goal of qualitative research is to identify, describe, and understand phenomena by attending to the open-ended responses and spontaneous, unconstrained behaviors of research participants. It also involves the interpretive capacities of researchers in making sense of the data they collect.

In this chapter, we discuss the role of qualitative methods in the research process of conceptual innovation and theory discovery. We review several proposals for how qualitative methods fit with quantitative methods in a broader methodology of knowledge generation. Lastly, we examine two traditional approaches (deduction and induction) and two emerging approaches (interpretive induction and abduction) to the process of generating theory in parent-child relations.

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# The Position of Qualitative Methods in the Social Sciences

Qualitative methods have always been an important part of the methodology of the social sciences, but their status and identity have varied by discipline. Within sociology and anthropology, qualitative methods have had a long history and continual evolution as an accepted and legitimate part of understanding families. Ethnographic studies, using a combination of participant observation and interviewing techniques, are represented by a number of landmark works that have focused on family immigration (Thomas & Znaniecki, 1927), working class families (Komarovsky, 1962; Rubin, 1976), middle-class families (Hess & Handel, 1959; Seeley, Sim, & Loosley, 1956), and, more recently, studies of work and family (Hochschild, 1997). Grounded theory approaches have been used to examine parents' and children's perceptions on a range of family experiences including family time (Daly, 2001), adoption (Hoffmann-Riem, 1990), and divorce (Arendell, 1998). There is also considerable theoretical and methodological scholarship on doing, presenting, and interpreting qualitative family research (Daly & Dienhart, 1998; Gilgun, Daly, & Handel, 1992), carrying out research with children (Nespor, 1998), and conducting qualitative studies from a feminist perspective (DeVault, 1990; Smith, 1987).

Within developmental psychology, qualitative methods had a relatively marginalized status in a research culture that equated science with quantitative methods. According to Valsiner (2000):

From the very beginning of their studies, psychology students are persuaded that *the* only “scientific method” in psychology is *the* statistical method (and that the only kind of “scientific knowledge” is based on quantified data). Such ideological claims are profoundly unscientific— since they replace the focus of researchers on the complex process of knowledge creation by a scenario where science is supposed to be created by a way of following a pre-given standard protocol for data collection. (p. 61)

Rarely taught in psychological departments, and difficult to publish in journals that habitually judge qualitative research using criteria designed for quantitative research, qualitative work has been an unacknowledged part of developmental research. Indeed, many researchers who incorporate elements of qualitative research into their scientific practice do so in an ad hoc manner or would be surprised to have aspects of their research identified as qualitative. It has always been somewhat ironic, therefore, that the major theoretical innovations in developmental psychology can be traced to qualitative methods in the form of the “clinical methods” of Freud, Piaget, Erikson, and Vygotsky; and to the naturalistic observation of parent-infant interaction. During the past decade, developmental psychologists increasingly have incorporated qualitative approaches from sociology, such as grounded theory and ethnology, into their own studies (e.g., Corsaro & Miller, 1992; Golby & Bretherton, 1999; Hogan & Gilligan, 1996). Furthermore, some qualitative methods books now address the study of human development (Jessor, Colby, & Shweder, 1996) and psychology (Kvale, 1996).

A definition of qualitative methods for the field of parent-child relations might take the following form: *Qualitative methods attempt to study the lived experiences of parents and children in their relationships and the meanings that they construct of those experiences from their own perspectives.* Such a definition includes verbal and nonverbal behavior. Observational methods, particularly in ethological and ecological traditions, are essentially qualitative, because the object of the research is to describe spontaneous behavior in relatively unconstrained and, ideally, natural settings. The act of creating a coding system to partition the stream of behavior into meaningful units is an interpretive act. By contrast, researchers who use “off the shelf” standardized observational systems are not doing qualitative research, although the act of inductively developing a coding system in an informal pilot study prior to the “main event” incorporates qualitative work. Bakeman and Gottman (1997) acknowledge the importance of the interpretive process when creating a coding scheme for observational data:

[p. 376 ↓ ] Yet sometimes the development of coding schemes is approached almost casually, and so we hear people ask: Do you have a coding scheme I can borrow? This seems to us a little like wearing someone else's underwear. Developing a coding scheme is very much a theoretical act, one that should begin in the privacy of one's own

study, and the coding scheme itself represents an hypothesis even if it is rarely treated as such. After all, it embodies the behaviors and distinctions that the investigator thinks important for exploring the problem at hand. It is, very simply, the lens with which he or she has chosen to view the world. Now if that lens is thoughtfully constructed and well formed (and aimed in the right direction), a clearer view of the world should emerge. But if not, no amount of corrective action will bring things into focus later. That is, no amount of technical virtuosity, no mathematical geniuses or statistical saviors, can wrest understanding from ill-conceived or wrong-headed coding schemes. (p. 15)

Developmental psychology has had less experience in the use of qualitative methods in the verbal and cognitive arenas. Although important early qualitative research on parent-child relations can be identified (Newson & Newson, 1965, 1970, 1978), its impact was muted by a disciplinary distrust of “self-reports” of subjective experiences. However, a more long-standing and general use of qualitative methods in the verbal arena is apparent when one includes any researchers who ask their subjects to provide open-ended responses to interview questions or hypothetical scenarios and develop coding schemes to categorize the narrative stream into meaningful units.

## Repositioning Qualitative Methodology in the Study of Parent-Child Relations

Recent years have seen a growing acceptance of the need for a more flexible and rational approach to selecting methods within a larger general methodology for generating knowledge in the social sciences. In spite of this more open stance, qualitative methods are still often viewed with skepticism and are more likely to be accepted in the “bridesmaid” role, where they are seen to be supporting or supplementing the testing of hypotheses. It is, therefore, important to examine how to reposition qualitative methods in relation to dominant quantitative practices. Crotty (1998) suggests that the decision to use a quantitative or qualitative method, or any particular kind of qualitative method, is scaffolded by a chain of assumptions. These include assumptions about the nature of the reality we are trying to understand



(ontology); the ways that we can approach understanding that reality (epistemology); the nature of how existing perspectives, frameworks, models, or concepts shape a focus on the subject matter (theory); the conversion of these perspectives into a research design or strategy that allows the researcher to access these dimensions of social reality (methodology); and finally, how a specific data-collecting technique might be used to accomplish the research objectives (methods). Hence, to reposition qualitative methods in the study of parent-child relations, we need to examine a number of a priori assumptions concerning each of these aspects of the research process.

## Ontological Assumptions

Qualitative inquiry is rooted in a set of assumptions about the fundamental nature of human beings. In this regard, Prus (1998) talks about “respecting” our subject matter. Positivist and quantitative orientations have tended to view people's behavior as the products of various forces (variables) that act on people, rather than seeking to understand the way that people meaningfully engage, actively and interactively, in the world in which they find themselves. The study of human beings is different from the study of physical objects because human beings have the capacity to use language, assign meaning, and take themselves and others into account in the ways that they create relationships and act in the world. Further, “if social scientists are sincere in their quest for a scientific appreciation of the human condition, they have an obligation to respect the nature of human group life and develop theory and methodology that is attentive first and foremost to the human essence” (Prus, 1998, p. 25). This is what [p. 377 ↓ ] Blumer (1969) referred to as going directly to the empirical social world as the place to form and examine root images, concepts, and interpretations (p. 32). This is in contrast with more traditional positivist approaches, which resort to “a priori theoretical schemes, sets of unverified concepts, and canonized protocols of research procedure” (Blumer, 1969, p. 33). For Blumer, the direct examination of the empirical social world, which he defines as the “actual group life of human beings,” is an inductive approach.

Shweder (1996) argues that the difference between qualitative and quantitative approaches is more crucially a matter of ontological assumptions about the underlying nature of the subject matter than it is of epistemology and method. “Quantitative

research with its methodological emphasis on pointing, sampling, counting, measuring, calculating and abstracting is premised on the notion that the subjective involves illusions that should be rejected” (p. 177) and, as a result, the effort is made through rigorous methodological techniques to remove subjectivity so that the “really real” world or *quanta* remains (p. 178). By contrast, qualitative research, with its emphasis on interpretation, empathy, narration, and contextualization, is premised on the notion that the objective conception of the real world is partial or incomplete and must be thoughtfully and deliberately supplemented with *qualia*, things that can be understood only by reference to what they mean or by reference to what it is like to experience them. In other words, the true difference between quantitative and qualitative researchers lies in their beliefs about the things they study. Shweder challenges researchers to bring their research practices in line with their beliefs.

if you are truly a quantitative researcher then you are committed to the view that *quanta* must replace *qualia* in any “scientific” account of reality.... conversely, if you engage in the kind of research that is now routine in the social sciences wherein you try to count, measure, sample, manipulate *qualia*—beliefs, desires, feelings, concepts, attitudes symbolically expressed in language—then you are not studying *quanta* at all. Ontologically speaking you remain a qualitative researcher... and, if that is all you ever did (or thought you did) when you studied *qualia*—count, measure, sample, manipulate “variables”—you would remain vulnerable to the criticism that there is some kind of incommensurability or lack of fit between your intellectual procedures and the objects of your investigation. You would be open to the critique that all the real work in understanding the things that you study (*qualia*) must be going on informally, before, after, or outside the formal application of any *quantitative* procedures. (Shweder, 1996, pp. 180–181)

Such challenges for researchers to be true to their ontological assumptions raise important questions of identity for contemporary researchers in parent-child relations. For students of parent-child relations, these ontological assumptions have to do with the nature of parents, the nature of children, and the nature of parent-child relationships. Most contemporary researchers were trained in the assumptions and procedures

of positivism, only to find themselves interested and studying phenomena such as beliefs, attitudes, values, relationship expectancies, working models, control beliefs, goals, culture, and other phenomena that fit better with the ontological assumptions underlying qualitative methods. Moreover, the assumption that persons react not to events but to their perceptions and interpretations of events is a maxim of most of the contributors to this volume. In place of attributing causal status to “variables,” there is a concern with understanding individuals as meaning-making agents who act on and seek to understand the complex and changing environments that are of concern to them. The ontological challenge is not that researchers should abandon quantitative methods but that they need to loosen some of the constricting values and operating procedures of their earlier training and reveal their covert interpretive practices so as to more efficiently study the object of their investigation.

## Epistemological Stances

### The Stance of Incommensurability

A divisive debate has viewed quantitative and qualitative methods as incompatible directions for science. Proponents argue that positivist [p. 378 ↓ ] and interpretive methods are incommensurable because they are based on different epistemological and ontological assumptions. Contemporary manifestations of this dichotomization of quantitative and qualitative methods include debates about which “paradigms”—positivism, social constructionism, critical theory, or postmodernism—are better suited for studying the human condition and the recent appearance of oppositional fields of study that embrace the two perspectives. Examples include the distinction between cultural and cross-cultural psychology, between developmental psychology and the sociology of childhood, and between interpretivist (Corsaro & Miller, 1992) and positivist approaches to socialization.

Lincoln and Guba (1985) argue that positivist and interpretive paradigms are incommensurable at the philosophical and paradigmatic level of epistemology, and that picking and choosing among methods is not possible because the axioms of

positivist and interpretivist models of science are contradictory and mutually exclusive. In this view, a preference for quantitative strategies is consistent with an ontological position of realism that assumes that there is an objective reality that can be studied independent of the values, theories, and interpretive actions of the investigator. Reality is apprehensible provided that one adopts a view of science as an enterprise that focuses only on those features of the world that are universal and can be measured objectively. In terms of products, this kind of science produces a very abstract kind of knowledge that favors nuggets of universal truths that are acontextual and ahistorical. It includes a focus on “variables” that critics view as washed out of any meaning, and it produces findings that are generalizable to large “samples” but apply to no one in particular (Valsiner, 2000). In contrast, qualitative research is consistent with an ontological position that reality is filtered through the theories, constructs, perceptions, and values of the observer. Qualitative inquiry produces knowledge that is more likely to be situationally specific, concrete, particular, contextual, and historical.

For many social scientists, the epistemological polarization of quantitative and qualitative methods has been unproductive (Becker, 1996; Overton, 1998; Shweder, 1996; Valsiner, 2000). Numerous studies pragmatically combine quantitative and qualitative strategies. For example, thematic content analysis of narratives and coding of observations usually begins as a qualitative effort because the categories are formed through an interpretive process by the researcher. However, such categories are often counted in order to summarize the data or are subjected to statistical analyses. Qualitative studies also use a variety of techniques that are more consistent with a realist ontology and a positivist epistemology (Lincoln & Guba, 1985). For example, practices such as calculating intercoder agreement or providing “thick description” to ensure reliability (“trustworthiness”) of data and quantitative or interpretive practices used to ensure generalizability (“transferability”) of results are premised on the belief that the goal of research is to explain a reality that is “out there.” Conversely, quantitative data and findings are also subjected to interpretation and quantitative procedures such as factor analysis that require interpretation in labeling and assigning meaning to factor scores (Haig, 2002).

## The Relational Stance

An emerging viewpoint of how quantitative and qualitative methods fit together is that they provide different perspectives for understanding the complex nature of the same phenomena. Overton (1998) recently reviewed the history of the epistemological/ontological debate in Western philosophy and the manifestations of this debate in developmental psychology. Overton argued that both traditional positions provide an inadequate, partial view of the phenomena of interest to developmental psychology. According to Overton, both the positivistic and the newer postmodern stances represent “split off epistemologies,” the traditional positivist stance privileging the external, objective, and universal and the postmodern stance privileging the internal, subjective, and particular. Overton outlines a line of thought that may forecast an integrative approach for the future of science, beyond current polarities. This approach would endeavor to “heal” split off epistemologies within a relational, dialectical perspective of reality whereby the subjective and [p. 379 ↓] objective, internal and external, and particular and universal remain linked together.

The new relational direction proposed by Overton may well provide an island of epistemological respite for pragmatic researchers who wish to get on with the task of generating knowledge. Such a position, however, dictates a much more flexible approach to methodology than is current in the field, for it embraces a new respect for the ontological nature of phenomena and a willingness to select methods best suited for the phenomena under investigation. This repositioning of qualitative methods in the study of parent-child relations involves a shift from seeing qualitative methods as providing residual or anecdotal evidence to the more “robust” quantitative data, to a position that recognizes their unique perspectives on our subjects of inquiry. Moreover, as will be considered in the next section, qualitative methods play a necessary role in the process of generating theory.

# Linking Method, Methodology, and Theory Construction

Valsiner (2000; Branco & Valsiner, 1997) suggests that rather than viewing methodology as a toolbox of ready-made methods, methodology should be viewed more generally as the whole process of knowledge construction: “it entails mutually linked components of general assumptions about the world at large (axioms), specific constructed theories of the given target area, understanding of pertinent phenomena, and— finally—ways of constructing specific methods to transform some aspects of the phenomena into purposefully derived data” (Valsiner, 2000, p. 82). These elements are interlinked in a methodology research cycle in which the researcher, on the basis of personal reasoning, experiences, and intuitions, makes productive or unproductive choices among various methods so as to explore theory or to explore phenomena. ideally, these research goals should be combined in a research cycle that allows choosing particular methods so that they are appropriate to particular theories (Tudge, 2000), the modification of theory in the light of empirical evidence, and the creation and exploration of new data in the light of changes in theory. in this conception of methodology as a knowledge-generation process, “Neither quantitative nor qualitative methods *per se* can be labelled ‘objective’ or ‘scientific’ as their status in these valued roles is determined only through their fit with the methodology cycle” (Valsiner, 2000, p. 82).

Other writers have described the research process as reflecting a cycling between inductive and deductive processes. in one depiction of such a model, Overton (1991) described the *recursive cycle of knowing* in which theory, concepts, experiments, and observations, along with metaphors and worldviews, flow in a continual cycle of induction and deduction.

Within American sociology, *grounded theory* was proposed as a method of theory discovery in a methodology that included both the discovery and verification of knowledge. in their original formulation of grounded theory, Glaser and Strauss (1967) argued that there is no fundamental incompatibility between qualitative and quantitative methods or data. Although grounded theory is associated with a qualitative approach,

they argued that “each form of data is useful for both verification and generation of theory” (p. 18). Hence, not only are quantitative and qualitative approaches complementary, but both are necessary for building conceptually rich theories. What is important when carrying out a discovery-oriented grounded theory study, however, is that primacy be given to *generating* theory. Although theories generated from data are subject to the processes of verification (e.g., through comparative analysis or testing for variations in the theory under different conditions), it is possible that giving primacy to verification and testing can block the generation of a more dense theory, if carried out too soon. It is in this regard that verification is in the service of generation in grounded theory, such that “generation of theory through comparative analysis both subsumes and assumes verifications and accurate descriptions, but only to the extent that the latter are in the service of generation” (Glaser & Strauss, 1967, p. 28).

Grounded theory has continued to evolve since its inception, and it is possible to identify how the two original formulators of grounded [p. 380 ↓] theory evolved somewhat different construals of the knowledge-generation process (Charmaz, 2000; Rennie, 1998). For example, 25 years after the original formulation of grounded theory, Glaser (1992) advocated a clear division between theory generation and verification. The process of theory generation is the exclusive concern of grounded theory, whereas the process of theory verification corresponds to external validation through the traditional quantitative hypothetico-deductive methods that involve randomized samples and standardized procedures. In contrast, Strauss and Corbin (1990) think of theory verification as a process of internal validation whereby hypothesis testing is integral to the process of constant comparison as categories are formed.

The importance of the theory-generation versus theory-testing distinction for research in parent-child relations has been noted by researchers on family conflict (Vuchinich, Vuchinich, & Coughlin, 1992). Qualitative methods, with an inductive exploration of ecologically valid, naturalistic data, are the source for new ideas, concepts, phenomena, and hypotheses. Quantitative methods provide a counterbalance by testing the generality and predictive validity of the new theories, thus putting the theoretician's “feet to the fire” (Cook, [Chapter 17](#), this volume).

Besides the theory-generation versus theory-testing distinction, the work of Glaser and Strauss is important for qualitative researchers in parent-child relations because

it provides guidelines for systematic qualitative data analysis and explicit analytic procedures for inductively generating, refining, and interrelating concepts and categories. It describes processes such as sensitizing concepts, line-by-line coding, constant comparison of the data and the emerging categories, memo writing, and theoretical sampling that systematize and expose to scrutiny the analytic process by which concepts are created. Thus, although other ways to construct categories are possible, the procedures pioneered by Glaser and Strauss were revolutionary because they attempted to make public processes that traditional training in research methods had previously left hidden or private, namely, how researchers construct concepts and theory from observational or narrative data.

## Demystifying the Theory Construction Process

In contemporary social sciences, the way that new ideas are discovered and formalized into theories is a mysterious process akin to magic. Theories are like magical coins that are pulled from behind the ear. There is surprise and delight at the apparently effortless appearance of cards suddenly ordered from otherwise random patterns. Perhaps most significantly, there is respect for and wonder about magicians' secret knowledge and carefully practiced methods that lie at the heart of their ability to create theory. Thus, the teaching of theory in the social sciences generally involves presenting the completed works of the great theoretician/magicians but leaving unexplored the processes that went into the creation of theory. Concepts, categories, variables, propositions, and theories themselves are vaguely rooted in observation and experience, but their genealogies are poorly articulated.

Our collective reluctance to explore the secrets of theory construction can be attributed to the domination of hypothetico-deductive models of theory testing in the social sciences. Sir Karl Popper articulated the scientific method as beginning with a theory, followed by hypotheses that are deduced from the theory, which are then tested with the focus on falsifying rather than verifying the theory. The process of theory testing (context of verification) was rational, methodical, and specifiable, whereas the principles by which new theories and innovative ideas are created (context of discovery) was



uninteresting for the hypothetico-deductive model because it was assumed that there was no way to rationally assess the mysterious psychological processes involved.

One of the ways that the theory-construction process maintains its mystique is by keeping the theorist out of the final theoretical products (Daly, 1997). The “self” of the social scientist observer has been treated as a “contaminant” that should be separated out, neutralized, minimized, standardized, and controlled (Krieger, 1991). For example, there is generally no forum in empirical journals to present inferential processes other than deduction. The conventional practice has been for researchers to present their hypotheses as if they were deduced [p. 381 ↓ ] from existing bodies of theory. Thus, researchers, on occasion, may feel the need to be coy about where they really got their ideas.

However, despite claims to objectivity, scientists are thinking, feeling individuals whose research questions are formulated and whose concepts and measures are selected on the basis of interpretation. Valsiner (2000) places the “experiencing researcher” in the middle of the methodology cycle. Gaskins (1994) argues that interpretation in psychology is widespread and unrecognized, particularly in the study of socialization processes in different cultures. In each of these areas, interpretation enters into many stages of the research process because researchers unconsciously rely on their own “folk” or “adult” beliefs about the meaning of behavior. Research questions, designs, and measures would be more culturally or developmentally valid if greater attention was paid to the perceptions and interpretations of the participants. Therefore, Gaskins advocates that researchers make a conscious and purposeful use of interpretation throughout various stages of the research process, including hypothesis generation, category development, measurement, and interpretation of findings. Our aim in the next section of this chapter is to examine these interpretive processes using a framework of four general categories of inference: deduction, objectivist induction, interpretive induction, and abduction.

Classical training in the social sciences recognizes only two forms of inference, deduction and induction. However, these two forms of inference have long been recognized as insufficient to account for scientific progress or for the processes that social scientists actually use when doing research. Two emerging approaches attempt to fill this gap. *Interpretive induction* emerged from a long-standing critique concerning

the nature of induction. *Abduction* was introduced by American semiotician C. S. Peirce (1839–1914) to refer to a form of inference that is implicated in the initial formation of hypotheses and explanations.

## Deduction

The deductive approach to knowledge generation begins with a theory or general set of assumptions about a phenomenon, proceeds to a set of hypotheses deduced from the theory, and finally proceeds to specific observations designed to rigorously test the theory. In the deductive approach, observation is guided by theory and, as a result, observations are selected with regard to their relevance to the theory being tested. The strength of this approach is that it serves to corroborate or falsify the hypotheses and, hence, the theory being tested.

There are, however, drawbacks to the deductive approach. In particular, unthoughtful, exclusive use of deductive approaches can impede progress in a field of study. In the realm of measurement, deductive approaches generally favor standardized or previously used measures. Such measures, to the extent that they show construct validity with regard to the theories from which they are derived, contribute to the narrow bounds of the preestablished conceptions but do not offer possibility of new knowledge generation. At worst, overreliance on such deductive measures leads to preservation of concepts well beyond their expiration dates. One such example in the parenting literature are measures of parental child-rearing attitudes (PCRAs). As noted by Holden and Edwards (1989):

The single most damning criticism of PCRA's may be their failure to reflect the current state of knowledge about parent-child relations. It is noteworthy that the questionnaires have gone essentially unchanged over the past half century, in the face of dramatic changes in conceptualizations of parent-child relations. Typically, the surveys portray children as generic, parents as trait-like and unthinking, and parent-child interactions as unidirectional and acontextual. (p. 49)

Although the repeated falsification of a deductive theory can initiate the search for better explanations, it is often the case that deductive approaches gravitate toward the maintenance of the theoretical status quo. Given the emphasis on theory testing, the processes by which new concepts and new ideas are created are not specifically addressed by deduction.

## Objectivist Induction

In its most mechanical form, induction involves a direct relationship between “objective” [p. 382 ↓ ] observations of social reality and theories arising from this reality that provide explanation. Like all inductive approaches, objectivist induction seeks to derive general propositions or theory from observations of specific events. What distinguishes it from the other inductive approaches is its positivistic assumption that theory and concepts should be based on data acquired from objective and dispassionate observations. Haig (1996) has referred to this as naive or “Baconian” inductivism because of the emphasis placed on the purity of observations. To do this objective kind of induction, the researcher must adopt a *tabula rasa* position when observing social reality so that concepts reflecting reality will reveal themselves to a passively receptive observer (Haig, 1996). This means adopting strategies to distance oneself from the objects being studied and making a deliberate effort to suspend any preconceived notions about the subject at hand in order to minimize any distorting effects. In keeping with the spirit of this approach, some methodologists would warn against the dangers of conducting a literature review (Glaser, 1992) prior to going into the field because of the distorting effects that it would have on the natural inquiry. Inductive generalizations do lead to new knowledge because they make statements about reality that are more broad than the actual observations or experiences. However, because the observer is cautioned to let the data speak for themselves, concepts formed through this process tend to be relatively narrow and constrained by the original observations.

Objectivist practices of induction have played and continue to play a central role in the qualitative research tradition. Ethnographers traveled to strange and exotic lands with the goal of writing “objective” accounts that were expected to be reliable and valid representations of these cultures. Care was taken to maintain their objective stance with an ongoing vigilance against the dangers of “going native,” which was a threat to

that objectivist position. These complex and theoretically dense ethnographies were intended to be timeless, objective monuments to the cultures studied but, in hindsight, were often riddled with the assumptions and colonizing objectives of the researcher's culture (Rosaldo, 1989).

The grounded theory tradition also has roots in the objectivist induction approach. The objectivist form of grounded theory is used by Barney Glaser, one of the inventors of grounded theory, who emphasized the direct and mechanical link between observation and theory. In his own words, "Categories emerge upon comparison and properties emerge upon more comparison. And that is all there is to it" (Glaser, 1992, p. 43). Furthermore, preconception, defined as the "personal interest of the sociologist-research-analyst," is seen to "force" the data and ultimately "derail" the inductive process (Glaser, 1992, p. 123). As one commentator argues, "Glaser is staying on the high ground of the experimental method of natural science: His grounded analysis is inductive. This is its strength. Induction keeps the investigator close to the data and justifies the assertion that the claims to understanding are grounded" (Rennie, 1998, p. 109). For Charmaz (2000), this approach lines up with traditional positivism with its assumptions of an objective, external reality; a neutral observer who discovers data; and an objectivist rendering of data as a theoretical product.

In developmental psychology, the observational tradition of ethology conforms most closely to objectivist induction. The researcher is asked to observe physical movements and behaviors in a way that eschews interpretations in the effort to strip away meaning-making activities characteristic of human culture in order to reveal action patterns that reflect evolutionary species-level universals. Taken to the extreme, the ethological ideal leads to the construction of ethograms—catalogs of microscopic movements and facial expressions where language is coded within a single category of "verbalizations" (McGrew, 1972). The ethological strategy for constructing categories is to rule out of bounds categories that infer meaning, so that biology can shine through. Although observation systems that rigidly adhere to the ethological ideal of an inference-free ethogram are rare in parent-child relations past the infancy period, coding systems confined to physical behaviors approach this ideal (Bakeman & Gottman, 1997).

Within psychology, Valsiner (2000) refers to the direct inductive link between data and **[p. 383 ↓ ]** theory as “empiricistic myopia.” What renders this approach problematic is that orthodox empiricist science tends to exclude important corrective feedback mechanisms such as intuitive experience and assumptions about the world (Valsiner, 2000). Without these subjective and interpretive processes, the “data are left to speak for themselves,” which gives rise to questions of “which language do the data speak?” and indeed, “how have the data learned to speak at all?” (Valsiner, 2000).

Objectivist induction has been called “naive” because of the inadequate explanation of what data are and how they are transformed into theory. Data can never be “raw” or “theory free” because they cannot exist without the perspectives that define them (Lincoln & Guba, 1985) or the methods that select them. In the same way that there are questions about how data speak, there are questions about how theory “emerges” from data. Theories do not emerge on their own but rather involve a more complicated process of layering webs of meaning over data by the researcher. This complex layering of meaning is central to an understanding of interpretive induction.

## Interpretive Induction

In the process of interpretive induction, the researcher plays an active and deliberate role in organizing and assigning meaning to the data as a way of constructing higher-order categories and theory. Rather than assuming the pretense of a blank slate in approaching phenomena, as in objective induction, the researcher approaches a problem from the perspective of *theoretical sensitivity* to existing concepts, ideas, and theory. Because of the influence of prior frameworks and ideas, interpretive induction is also shaped by deductive processes. Metaphorically, in objectivist induction, the researcher is a miner digging up nuggets of meaningful but objective data (Kvale, 1996). A metaphor for interpretive induction is the researcher as a world explorer during the age of discovery. The explorer is motivated and guided by theories, beliefs, and suggestive leads from previous explorers about the nature of the world and, so equipped, sets out on a voyage of discovery. The explorer has both expectations and a willingness to be surprised about what may lie ahead. Initially imposed meanings lead the explorer to perceive “Indians” and Oriental treasure, but eventually observation and

experience lead to the development of new categories and theories about the nature of the newly discovered world.

When the object of discovery is human action in social contexts, interpretive induction is concerned with two layers of meaning: the meanings that are held and communicated to researchers by their subjects concerning their everyday lives, experiences, and perceptions, and the meanings that researchers bring to these meanings as they endeavor to understand, explain, and theorize about these everyday realities. The process of layering meaning is part of the “irreducible conflict” between the scientific perspective and the experience of everyday life (Becker, 1964). Whereas everyday reality tends to be specific and localizing, scientific reality tends to be abstract and generalizing. As a consequence, when scientists develop theories, there will always be a conflict between the meaning structures brought to the endeavor by the scientist and the meaning structures that exist as part of the commonsense world that they are seeking to understand. This is a kind of “double hermeneutic” whereby social scientists observe and interpret the experiences of individuals who are themselves interpreting the worlds they experience (Prus, 1994, p. 20). Schutz (1971) articulated this tension between scientific and everyday language in the distinction between first- and second-order constructs. The constructs that the social scientist develops are constructs of the second degree—they are “constructs of the constructs made by the actors on the social scene, whose behaviour the scientist observes and tries to explain in accordance with the procedural rules of his science” (Schutz, 1971, p. 6). The double hermeneutic involves the “dialectical interplay” between the subjective meaning of people's specific and general experiences described using everyday language and the objectifying reality of the researcher's reconstructions of that reality using concepts and theory (Rothe, 1993).

The reconciliation of these two layers of meaning has been articulated as the “crisis of representation” that arises from uncertainty [p. 384 ↓ ] about adequate means of describing social reality (Marcus & Fischer, 1986). Questions regarding researcher position and authority, use of language, and a skepticism about scientific metanarratives and legitimating practices raise concerns for theory construction because “problems of description become problems of representation” (Marcus & Fischer, 1986, p. 9).

One of the paths through the crisis of representation is a position that argues that there is no division between the layers of meaning held by researchers and participants, but that the meanings that are articulated as theory represent a hybrid of meanings consisting of a researcher's observations and related experiences and participants' expressions of their perceived reality.

Of importance here is the recognition that researchers are also everyday participants in the culture under study. As a result, researchers are always straddling first- and second-order meanings by virtue of having to reconcile their dual citizenship as members of the culture that they seek to understand and as members of a scientific discipline.

*Reflexivity.* The strategy of monitoring how personal meanings and expectations creep into the process of inductively generating theory is known as reflexivity. It involves a “deconstructive exercise for locating the intersections of author, other, text and world and for penetrating the representational exercise itself” (Macbeth, 2001, p. 35). It rests on the idea that the scientific observers are part and parcel of the setting, context, and culture they are trying to represent and that “time, purpose, approach, language, styles and loyalties are all implicated” (Altheide & Johnson, 1994, p. 487).

To illustrate the use of theoretical reflexivity in practice, we provide an example from the research of one of the authors (Daly). In my own work as a qualitative researcher, the practice of reflexivity has played a significant role in the way I have prepared myself to enter into the field and interpret data. For example, in a study of fathering practices (Daly, 1993, 1996), I began by examining some of my own habits, frustrations, expectations, and role behaviors as a father. In addition, I interviewed my own father about his relationship with his father and drew on a personal growth workshop that focused on fathering. Rather than presuming to begin with a posture of objectivity, I was deliberate about scrutinizing my subjectivity. Through these activities, I sought answers to questions about fathering that were personally salient in order to have a greater awareness of the difference between my personal and research agendas. Although these agendas are never neatly compartmentalized, the process of reflexivity can serve as a means for seeing the way that the personal can affect the research process. This is especially important when researchers are “insiders” who have significant personal experience with the topic of study (see Daly, 1992, for a discussion of this). Reflexivity also plays an important role in the way that researchers generate and

construct theory in the interpretive process. Although theory is often presented as a product of a disembodied intellect, theoretical explanations reflect in many ways the values, interests, and concerns of the theorist (Daly, 1997).

In contrast with positivist attachments to objectivity and neutral observation strategies, the process of reflexivity leads the researcher to problematize researcher position, meanings, and values in the theory-construction endeavor. Reflexivity is a process of “coming to our senses” in order to consciously acknowledge how the private experience of being in the world affects the public forms of knowledge that we produce (Allen, 2000). In some forms of qualitative research, particularly as practiced by feminist researchers, reflexivity is also concerned with reorienting the traditional dynamics between the researcher and participants, in which participants were routinely exploited in the service of generating knowledge (Oakley, 1981). To enlist participants as collaborators and co-constructors of knowledge, an effort was made to engage participants in the process of theory building by means of an interactive research process that invited reciprocal reflexivity and critique between theorists and research participants (Lather, 1986).

## Theoretical Sensitivity and Sensitizing Questions

At a practical level, one of the ways that interpretive induction proceeds is through the use of *theoretical* sensitivity. Rooted in the grounded theory tradition, theoretical sensitivity involves [p. 385 ↓] taking stock of personal and professional experience, the existing research literature, and relevant concepts and theoretical perspectives (Strauss & Corbin, 1990). For example, qualitative researchers who are interested in father involvement would need to take into account their own experience of fathering, mothering, or being fathered; their previous activities associated with fathering programs; the empirical literature that identifies factors associated with higher father involvement; and any relevant theoretical frameworks such as “generative fathering” (Allen & Hawkins, 1999) or “responsible fathering” (Doherty, Kouneski, & Erickson, 1998). When using theoretical sensitivity, concepts are “sensitizing” rather than “definitive” (Blumer, 1969). In this regard, existing theoretical ideas play



a generative role and serve to orient the researcher to the phenomenon that is to be explored. Whereas “definitive concepts” are prescriptive, requiring precise reference to the empirical world, sensitizing concepts provide “reference and guidance” and serve to “suggest directions” when approaching empirical instances (Blumer, 1969, p. 148). Hence, to return to the father involvement example, concepts such as “deficit model” (Doherty et al., 1998) or maternal “gatekeeping” (Allen & Hawkins, 1999) are sensitizing concepts that can give direction to the inductive inquiry. Whereas objectivist induction warns against paying attention to such matters, theoretical sensitivity is deliberate about accounting for the meanings that constitute the researcher's frame of reference.

In one sense, the practice of stating sensitizing questions in qualitative research has a counterpart to the practice of stating a priori hypotheses in quantitative research. Both practices serve as a means for communicating the conceptual frameworks or practical research questions that guide the empirical endeavor. However, sensitizing questions are broader in the kinds of concepts, experiences, and literatures that can be specified, whereas hypotheses in quantitative research generally are presented as if they were deduced from a preexisting formal theory. Sensitizing questions are also less constraining than hypotheses in the kinds of data that are relevant in the data-collecting process. Quantitative research driven by hypotheses is very restrictive about the kinds of data that the researcher is guided to collect, and the contribution to knowledge of research generally depends on the results of significance tests. Sensitizing questions, on the other hand, serve to state a general orientation to the kinds of naturalistic observational or interview data that are of interest to the researcher, and their significance depends on the process of interpretation.

## Abduction

Scholarship on the methodology of discovery has increasingly made reference to the centrality of abductive reasoning (Haig, 1996; Overton, 1998; Valsiner, 2000). American semiotician Charles Sanders Peirce introduced abduction (or alternatively, retroduction) as a third mode of inference, along with deduction and induction, and the only mode of inference concerned with the discovery of new ideas. Abduction describes how the

initial conception of an idea or a hypothesis comes about and gets into the system of explanations for phenomena.

Modern revival of interest in abductive inference is attributable to Hanson (1958) and to Harman (1965), who introduced an aspect of abduction known as *inference to best explanation*. The process of abduction begins when one encounters data or phenomena that are surprising because they are not predicted by a commonly accepted hypothesis or theory. In casting about for an explanation, the researcher notices that one hypothesis stands out as an explanation for the phenomenon:

in making this inference one infers, from the fact that a certain hypothesis would explain the evidence, to the truth of that hypothesis. In general, there might be several hypotheses which might explain the evidence, so one must be able to reject all such alternative hypotheses before one is warranted in making the inference. Thus one infers, from the premise that a given hypothesis would provide a “better” explanation for the evidence than would any other hypothesis, to the conclusion that the given hypothesis is true. (Harman, 1965, p. 89)

Abduction is concerned with the formulation of plausible hypotheses and conceptual categories [p. 386 ↓ ] to explain the puzzling phenomena. Whereas induction would focus on “what the data are telling us,” abduction is more likely to generate explanation based on a process of imagination whereby we imagine explanation by making a connection to something analogous to those mechanisms whose nature we do know. The abductive process of inference to the best explanation, in which one seeks explanation from a variety of sources, takes us beyond the immediate field of our inherited theories and data. As such, Peirce saw abduction as encompassing both an initial imaginative stage (using words like “impressions,” “musing,” and “recognition”) and an evidencing process (observations, clues, formation of rules) where the focus shifts to understanding how well the new ideas illuminate the surprising phenomenon we set out to understand (Shank & Cunningham, 1996). In short, abduction combines the creative interpretive process with critical reasoning.

Both deduction and induction involve linear forms of reasoning from general statements to observations or from observations to general statements. In abduction, by contrast,

the reasoning process involves a lateral step into the researcher's general store of knowledge that introduces new ideas not contained in either preexisting theory or the data themselves. A metaphor for abduction is the detective. The researcher is confronted with something puzzling or unexpected in the data and must generate and evaluate competing hypotheses to explain the puzzle. The famous “deductions” of Sherlock Holmes have been much analyzed and reinterpreted as instances of abduction (Josephson & Josephson, 1994).

According to Overton (1998), abduction (retroduction)

explicitly demands the construction of *interpretations* (e.g., narratives, theories, models) that, in the light of all available background information (reasons and observations), *plausibly explain* (order) the phenomenon under study. Retroduction thus warrants that interpretation and observation are interpenetrating co-actors in the methodology of empirical science. ... Empirical research—assessment and experimentation—entails testing the *plausibility* of such retroductively produced interpretations. (Overton, 1998, p. 167)

Abduction has also been described as a pervasive interpretive process in human reasoning. Abduction occurs whenever one infers from a person's behavior to some fact of their mental state, or whenever one infers explanations from everyday circumstances. Abduction is the process involved in clinical diagnosis, jury decision making, and crime detection to solve explanatory problems (Ward, Vertue, & Haig, 1999). Everyday inference—basic “street smarts” that govern social interactions—do not resemble the process of top-down deduction or bottom-up induction. Indeed, the reasoning of a person relying exclusively on the two forms of inference taught in methodology courses would appear odd or rigid to an outside observer.

Abductive reasoning, therefore, is crucial in the process of scientific discovery. Josephson and Josephson (1994) argue that abduction or inference to the best explanation underlies many of the important theoretical discoveries in the physical and natural sciences. Within psychology, Brian Haig and his colleagues, in a series of papers (1996, 2002), have described abduction as the essential process in interpreting correlations in exploratory factor analysis and phenomenon detection in scientific

method, in clinical assessment and diagnosis (Ward et al., 1999), and in the formation of categories in grounded theory (Haig, 1996).

If abduction is as pervasive as commentators claim, it seems likely that virtually anyone who does conceptually oriented research will have personal examples of abduction. Published examples are rare, however, and the process of abduction is generally unacknowledged as a source of research ideas.

In the interest of illustrating an actually occurring abduction in the field of parent-child relations, we offer the following example from one of the authors (Kuczynski). At the beginning of this story, I was engaged in my doctoral research on young children's conformity to parental requests and commands, earnestly using the deductive procedures that I learned during my scientific training. I conducted a number of experimental studies on children's conformity using conceptions of conformity as "compliance in the absence of the socializing agent" deduced from internalization theories of the 1970s and a competing measure operationalized [p. 387 ↓ ] as compliance in the presence of the socializing agent" or, alternatively, "compliance within 10 seconds of a command" deduced from external control theories (Kuczynski, 1983). I then conducted a study that was noteworthy because, for the first time in my career, i wished to apply these conceptions of compliance to observations of real-life mothers interacting with their own children.

The study was successful in that deductive measures could be applied to the data (Kuczynski, 1984), but inductive coding of the spontaneous interaction revealed a puzzle that proved generative—the behavior of mothers and children did not fit the theoretical expectations of either internal control or external control theories. Far from fearing their mothers or being particularly compliant, children appeared to freely disobey their mothers or evade compliance. Moreover, astoundingly (given theory), mothers were not perturbed by this fact and gave every indication that their children's non-compliance was a tolerated and accepted part of their everyday interaction. induction, as it turned out, revealed a puzzle but went only so far in providing an explanation. The final report of the study therefore did not go beyond appending a list of various behaviors of children as examples of their active contributions to mother-child interactions.

The theoretically discrepant nature of these inductive observations remained puzzling to me, and solving that conceptual problem was a personal underlying objective that I contributed to subsequent collaborative studies of mother-child interactions observed in a naturalistic, home-like context. There, after much cataloging of numerous forms of noncompliant behaviors used by children between the ages of 18 months and 5 years (ignoring, defying, politely refusing, questioning parental commands, offering explanations for noncompliance, bargaining) and musing not only about the meaning of the naturalistic data but also about similar mother-child interactions observed in the homes of friends and acquaintances, I formed a hypothesis (a bona fide “aha!”). This insight further shaped the coding system and the subsequent analyses of the data (Kuczynski & Kochanska, 1990; Kuczynski, Kochanska, Radke-Yarrow, & Girnius-Brown, 1987). The product was a normative developmental model of children's noncompliance that conceptualized noncompliance as a class of assertive influence strategies no different in kind from the influence strategies that adults use. Moreover, much like the social strategies that adults use when they resist complying with requests made of them, toddler and preschool children's noncompliance strategies varied in assertiveness and level of social skill. This conception was productive, not only empirically but also in generating a further puzzle, namely, what overarching theory of children's noncompliance would explain both children's behaviors and parent's indulgent reactions to them? Subsequent and much longer-term musings on *that* problem eventually led to the postulation of a “relational” model of children's noncompliance (Kuczynski & Hildebrandt, 1997) that provides the sensitizing questions for my current empirical research.

By what process did these conceptual innovations emerge? It was not deduction, because that process would have led to further testing of traditional external control and internal control theory. It was not induction; induction from naturalistic data uncovered a puzzle, but the categories that were generated by that process amounted to empirical generalizations of relatively low theoretical content. Both the pursuit of a puzzle and the lateral use of adult analogies marks the process as abductive.

For many years, abductive inference has been the province of semioticians and philosophers of science, and it is only recently that it has begun to enter the awareness of practitioners of social science research. Several kinds of developments are necessary to increase scientific acceptance of abduction within a science of discovery.

One direction concerns specifying criteria for evaluating the worth of competing theories generated by abduction (Ward et al., 1999). Thagard (1992) has proposed criteria for evaluating the explanatory coherence of propositions. According to Thagard, a new theory or explanation is better than others to the extent to which it meets the criteria of explanatory breadth (explains a greater range of facts), simplicity (makes fewer special assumptions), and analogy (is supported by analogy to theories that scientists already find to be credible). These criteria concern the abductive phase of inference [p. 388 ↓] to best explanation and not to the deductive process of empirically testing abductively generated theories.

It is particularly important to demystify the creative interpretive process by which competing plausible explanations are generated in the first place. Progress may be hindered by a stereotype of the abductive moment as consisting of a sudden leap in insight, the “Eureka!” when a well-formed or promising explanation suddenly jumps into consciousness. Such abductions may well occur, but scientific abduction is a much longer, deliberate, and arduous process. The process of formulating a theory may take a series of abductions over a period of months or years. Moreover, once a promising explanation is discovered, it may take a considerable effort to refine a basic insight into a workable scientific model.

As to the cognitive processes that are involved in “doing abduction,” many commentators (Josephson & Josephson, 1994; Kuczynski, Lollis, & Koguchi, [Chapter 20](#), this volume; Thagard, 1992) implicate the use of analogy and metaphor, but other processes may be involved. Shank and Cunningham (1996) derived six modes of abductive inference based on the original propositions of C. S. Peirce. These include

This may provide a way of making the processes involved in abduction amenable to scientific study.

# Future Directions in Theory-Generating Research

An important path for advancing scientific acceptance of a science of discovery involves demystifying the interpretive process of theory generation. Approaches include the scientific study of scientific reasoning (Klahr & Simon, 1999) and the study of the creative processes of recognized innovators (Sternberg & Dess, 2001). It is also important that the scientific training of young researchers incorporate the interpretive process of theory generation as a topic of study. Training in methodology in the social sciences needs to communicate that scientific progress incorporates not only a methodology of verification but also a methodology of discovery and that these have different goals, operate according to different principles, and require that their products be evaluated by different criteria. This is crucial because classical training in the sciences has offered a constrained view of what forms of reasoning are permitted (Overton, 1998). Researchers engaged in conceptual innovation and explanation must often do so with a sense of “breaking the rules” when they go beyond the bounds of the accepted practices of deduction and objectivist induction. Perhaps training in such inferential processes as interpretive induction and abduction could enable young researchers to make their discoveries in a more timely and efficient manner.

Scientific training should also foster a joint focus, both on existing theory and on fully understanding the phenomena of interest (Valsiner, 2000). Such an orientation may encourage researchers to depart from the closed loop offered by an exclusive hypothetico-deductive orientation. It implies that a general methodology of knowledge generation should encourage a researcher to search out and pursue puzzles and not just hypotheses. The identification of puzzles depends on commitment to understanding phenomena of interest and on being aware of how far existing bodies of theory fall short in accounting for phenomena.

Building skill in the interpretive process in qualitative methods may also require a broader general knowledge base than mastering the content of established bodies of theory. In our analysis of both interpretive induction and [p. 389 ↓ ] abduction, reference was made to the ideas or store of knowledge that the researcher brings to

the research process. In interpretive induction, the process of theoretical sensitivity and reflexivity refers to the wide array of meanings, ideas, and values the researcher brings to the process of formulating and analyzing research. Abduction offers an even wider spectrum of ideas that may help researchers generate and evaluate explanations. When it is considered that many of the ideas of the great theoretician innovators in physics, biology, chemistry, biology, and the social sciences come from the ability to form metaphors or analogies, it appears that preparation for the abductive thinker might include knowledge not only of interdisciplinary sciences but also of applied and clinical research, philosophy, and the humanistic literature.

In conclusion, the field of parent-child relations has reached a stage where conceptual innovation and description in the service of conceptual innovation are becoming of paramount concern. The field needs to embrace a broader methodology of theory-driven research than has been typical for the field, a paradigm of theory generation to supplement the discipline's traditional focus on theory testing. Theory-driven or conceptual research has almost always been narrowly equated with the hypothetico-deductive method, which serves the critical purpose of lending support to existing theory by means of testing hypotheses but has left the discovery of theory in the realm of extra-scientific activity, speculation, or magic. But what is theory discovery if not theoretical or conceptual? Qualitative methodology serves parent-child relations in two ways: It is the methodology by which phenomena grounded in natural behavior and thought are discovered, and it is the only methodology that attempts to make explicit the interpretive activities of the researcher in formulating explanations of phenomena. For these reasons, we expect that qualitative methods will become increasingly prominent in research directed at generating theory on the dynamics of parent-child relations.

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## Part VI: Implications for Research and Practice

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### Chapter 19: Parent-Based Interventions for Aggressive Children: Adapting to a Bilateral Lens

Timothy A. Cavell, ed. Paul S. Strand, ed.

In this chapter, the focus is not on a particular aspect of the parent-child relationship but on a specific subgroup of parents and children. Our concern is with those children who frequently use aggression and other forms of antisocial behavior to meet their needs and influence others. Researchers have long recognized that such children wield considerable power in their families (Patterson, 1976). Unlike the vast majority of parents who are relatively comfortable accepting children's influence and tolerating intrafamilial conflict (Kuczynski, [Chapter 1](#), this volume), parents of aggressive children often feel inept and under siege (Webster-Stratton & Spitzer, 1996). In families with aggressive children, the socialization process is weakened and distorted by power reversals, by the propensity for violence, and by a shortage of opportunities to witness and use prosocial forms of behavior. The clinical imperative to intervene with these families is strong because aggression heightens the child's risk for serious maladjustment, including juvenile delinquency, adult criminality, substance abuse, and impaired occupational and marital functioning (Loeber, 1990; Moffitt, 1993; Patterson, Reid, & Dishion, 1992). The most commonly recommended strategy for altering the negative developmental trajectory of aggressive children is a parent-based intervention known as parent management training (PMT).

PMT is a summary term used to describe a therapeutic strategy in which parents are trained to use skills for managing children's problem behavior (Kazdin, 1997). PMT programs differ in the populations targeted (e.g., preschoolers, children with ADHD), in the content emphasized, and in the formats used. Common to all PMT programs, however, is the goal of enhancing parental control over children's behavior (Barkley, 1987; Eyberg, 1988; Forehand & McMahon, 1981; Patterson, Reid, Jones, & Conger, 1975; Webster-Stratton, 1987). PMT began as an attempt to train parents in behavior modification techniques that therapists were using to re-engineer children's social environment (Hanf, 1969; Hawkins, Peterson, Schweid, & Bijou, 1966; Wahler, Winkle, Peterson, & [p. 396 ↓] Morrison, 1965). A typical PMT curriculum involves training parents to issue clear commands, to extinguish (via ignoring) minor misbehaviors, to reinforce (via attention, praise, or tangible rewards) desirable behaviors, and to punish (via time out, response cost) serious misbehaviors. An impressive body of research supports the treatment efficacy of PMT (Kazdin, 1997; McMahon & Wells, 1998). Nevertheless, the central premise of this chapter is that parent-based interventions for aggressive children are in need of an update. The underlying assumptions and core

curricula of these programs have changed little in the past 30 years despite substantial revisions in the conceptualization of childhood aggression. We explore the wide gulf that separates traditional forms of parent-based intervention from recent advances in knowledge about the causes and course of childhood aggression. We then attempt to bridge that gulf, drawing heavily from the larger organizational frame of bilateral parent-child dynamics. As part of that effort, we present a set of 10 principles that can be used to guide future research on parent-based interventions for aggressive children.

## The Need to Update and Expand Parent-Based Interventions

The notion that current approaches to PMT need revision may seem odd given the large body of research supporting its status as an empirically supported treatment for children with conduct problems (Brestan & Eyberg, 1998; Webster-Stratton & Taylor, 2001). We base our argument on four points: (a) nagging concerns about benefits and mechanisms of PMT, (b) revisions in the behaviorally based assumptions that underlie PMT, (c) a greater appreciation for the role of nonparenting factors in the development and course of childhood aggression, and (d) recent advances in the conceptualization of parental influence.

## Nagging Concerns from PMT Outcome Studies

Despite considerable support for the efficacy of PMT, critical reviews of the outcome literature reveal nagging concerns about its benefits and its putative mechanisms of action (Cavell, 2000; Dumas, 1989; Kazdin, 1997; Serkitich & Dumas, 1996). PMT is most effective when used to treat oppositional preschoolers whose clinic-attending (often European American) parents are not overly burdened by socioeconomic disadvantage, familial stress, or individual psychopathology. Published studies cited as evidence for the efficacy of PMT have relied heavily on samples that fit this profile. Not all children in these studies benefit, but impressive gains in child behavior often

are observed. These gains usually are more evident at home than at school, but generalized effects typically are observed in the siblings of target children. There is also evidence that parents are more skillful and are more confident about their parenting following PMT. Parents' consumer satisfaction with PMT generally is positive, with some techniques (e.g., praise, time out) being more appealing to parents than other techniques (e.g., ignoring, playing). The majority of studies examining the long-term benefits of PMT report that treatment effects are maintained over time, although few studies provide follow-up data, and fewer still provide follow-up data past 1 year (Eyberg, Edwards, Boggs, & Foote, 1998). The handful of studies that followed children for more than 1 year (e.g., 3, 7 ½, and 14 years) have yielded generally positive findings, but these studies are plagued by significant limitations, including a lack of comparison subjects or a differential loss of subjects over time. The most impressive long-term findings were those reported by Webster-Stratton (1990), who found that significant gains were stable 3 years after PMT. It is important to note, however, that teachers had rated 61% of the target children as being within the normal range of behavior before treatment ever began. Still, Webster-Stratton (1990) concluded that her results were "similar to the other parent training studies, which have suggested that 30% to 50% of treated families fail to maintain clinically significant improvements" (p. 148).

Do supportive but limited findings regarding PMT generalize to real-world settings or to families that deviate from the modal family found in published outcome studies? There is good reason to question the transfer of PMT [p. 397 ↓ ] from the lab to the clinic (Weisz, Donenberg, Han, & Weiss, 1995), but published studies on the effectiveness of PMT are rare (cf. Taylor, Schmidt, Pepler, & Hodgins, 1998). Particularly troubling is the lack of research demonstrating that PMT can be used effectively to treat children who may be at greatest risk for the negative sequelae of childhood aggression. We refer here to those children whose antisocial behavior begins in preschool but persists into the elementary grades, whose racial/ethnic group membership is likely to be African American or Latino, whose families are disorganized and disadvantaged, and whose parents struggle with psychopathology (e.g., depression, personality disorders) or a severe lack of social and emotional support (Cavell, 2000). Investigators recognize the need to evaluate intervention programs with more diverse samples, but recent attempts are confounded by one of two trends. one is for researchers to recruit a diverse and

more disadvantaged sample of families based on the presence of nonspecific risk factors such as parental divorce or children's enrollment in Head Start (Forgatch & DeGarmo, 1999; Webster-Stratton, 1998). As selection criteria, these variables have a more tenuous predictive relation with later maladaptive outcomes (e.g., delinquency). A second trend is to deliver PMT as part of a larger intervention package targeting high-risk samples of aggressive children, many from multiproblem families facing significant socioeconomic disadvantage (Conduct Problems Prevention Research Group, 1999; Prinz, Blechman, & Dumas, 1994). These intervention programs offer skill training opportunities for children as well as parents. Their curriculum is based on evidence that a combination of the two may be more effective than either alone (Kazdin, Siegel, & Bass, 1992). Unfortunately, these recent investigations do not involve research designs (e.g., dismantling) that allow one to assess the benefits of PMT only.

Blending PMT into a larger intervention package also makes it difficult to examine the mechanisms by which parent-based interventions produce therapeutic change. Although putative change mechanisms can be measured and hypothesized links to outcome variables can be tested, interpretations are clouded by the multifaceted nature of the interventions (e.g., Eddy & Chamberlain, 2000). Few studies have examined the possible mediators of PMT alone, with most being conducted by researchers at the Oregon Social Learning Center. Forgatch (1991) studied 50 families that received either individually administered parent training (35 families) or family therapy that included aspects of parent training (15 families). Families received, on average, 19 treatment sessions each. Posttreatment assessments were used to categorize families as either improved or unimproved on the basis of whether their parenting practices had improved at least 30% from baseline. As expected, improvement in parenting practices was associated with a decrease in child antisocial behavior. Parents' use of monitoring was more predictive of treatment gains than was their use of discipline, and neither positive reinforcement nor problem solving was related to a reduction in child antisocial behavior. Parents that improved on both discipline and monitoring were expected to have children who were most improved; however, only 25 (50%) parents improved their use of discipline, only 8 (16%) improved their use of monitoring, and only 5 (10%) improved on both discipline and monitoring. These findings raised questions about the extent to which participation in PMT can produce positive changes in targeted parenting practices.

Forgatch (Forgatch & DeGarmo, 1999; Martinez & Forgatch, 2001) has continued to investigate the extent to which changes in parenting (as a result of PMT) are responsible for changes in child outcomes. Forgatch and DeGarmo (1999) found that changes in parenting significantly predicted child outcomes (e.g., level of externalizing behavior), but these findings were compromised by the fact that experimentally induced treatment effects were not significant. Further analyses of these data involved grouping diverse measures of parenting into a positive parenting or a coercive discipline composite (Martinez & Forgatch, 2001). Changes in positive parenting were found to be a stronger predictor of child outcomes than were changes in coercive discipline. Noteworthy, however, is that Martinez and Forgatch (2001) used measures of parental monitoring as key indicators of positive parenting. Thus, findings from two separate studies (Forgatch, 1991; [p. 398 ↓ ] Martinez & Forgatch, 2001) suggest that changes in parental monitoring are more predictive of child outcomes than are changes in parental discipline. Martinez and Forgatch (2001) viewed their findings as evidence that parental monitoring operates as means of enhancing the quality of the parent-child relationship, which in turn can lead to beneficial changes in child behavior.

Complicating this interpretation are recent studies that parse the monitoring construct into distinct components (Kerr & Stattin, 2000; Secrest, Cavell, & Frick, 2002; Stoolmiller, 1994). Kerr and Stattin (2000) found that when parents' knowledge of children's whereabouts was based on information provided by children, it was more predictive of children's problem behavior than knowledge gathered solely by parents. Their data also challenged the idea that parental tracking and surveillance function to prevent children from interacting with deviant peers: "With child disclosure and parental control held constant, one tracking measure, parent solicitation, was somewhat associated with a greater likelihood of delinquency and, for boys, with having deviant friends" (Kerr & Stattin, 2000, p. 376). Kerr and Stattin cautioned against overinterpreting this finding, but the results are a potentially important counterpoint to previous thinking.

Using confirmatory factor analysis, Secrest et al. (2002) tested whether the monitoring scale of the Alabama Parenting Questionnaire (Frick, 1991) was better represented by one versus two factors. A two-factor model was a significantly better fit, and both factors—parental supervision and child wandering—were significantly correlated with children's externalizing problems. The term *wandering* was borrowed from Stoolmiller

(1994), who described it as children's reluctance to make their whereabouts known and a tendency to spend unstructured, unsupervised time outside the home. Recent studies have suggested that individual differences in children's amenability to supervision could explain the robust relation between monitoring and later problem behavior (Dishion, Capaldi, Spracklen, & Li, 1995; Eddy, Dishion, & Stoolmiller, 1998). For example, Dishion, Capaldi, et al. (1995) reported that supervision was no longer predictive of later delinquency when wandering was first covaried. Research on parental monitoring illustrates how constructs and models derived from a unilateral perspective (i.e., parent-child) can impede efforts to understand fully the relation between parent behavior and child behavior.

## Revisions to Behaviorally: Based Assumptions Underlying PMT

In recent years, there have been notable shifts in the research examining the theoretical assumptions that underlie PMT. Among these are a renewed emphasis on the function versus the topography of behavior (Jacobson, 1992) and an interest in what Strand (2000a; Strand, Wahler, & Herring, 2001) refers to as indirect reinforcement effects. Our focus here, however, is on two other shifts, both of which serve to expand Patterson's (1982) original coercion hypothesis. One involves the application of the matching law, and the other is Wahler's (1994) social continuity hypothesis. Also considered here are the potential benefits of expanding the role of non-operant learning principles for parent-based interventions. Each one of these shifts (or potential shifts) is compatible with a bilateral view of parent-child dynamics.

## Patterson's Coercion: Hypothesis and the Matching Law

The behaviorism that exists today holds to a different conceptualization of reinforcement theory than that which inspired PMT. The traditional and often-criticized version is Thorndike's formulation of the *law of effect*, which states that a behavior will vary as

a result of its consequences (Thorndike, 1911). Replacing the simplistic, linear law of effect is Herrnstein's *matching law* (Herrnstein, 1970; McDowell, 1982). A major tenet of the matching law is that behavior is not simply a function of the rewards that accrue to that behavior; rather, behavior is a function of rewards accruing to that behavior *relative* to the rewards accruing to its alternatives. Thus, the rate at which two children display aggressive behavior may be drastically different despite identical consequences for that behavior. This would be the case if each child obtained different [p. 399 ↓ ] consequences for those behaviors that serve as *alternatives* to aggression. Thus, Thorndike's notion that a response is strengthened or weakened by its consequences has been replaced by the subtler notion that consequences affect the distribution of choices across available alternatives:

Reinforcement does not mechanically increase the “strength” of a particular response independent of other responses, but it does provide information about the functional or adaptive value of each of the multiple responses that could be made in a particular situation. Responses are selected rather than strengthened. (Snyder, Edwards, McGraw, Kilgore, & Holton, 1994, p. 319)

This is an informational rather than a mechanical conceptualization of reinforcement: “Consequences do not shape behavior; rather, they shape the meaning of objects and events” (DeGrandpre, 2000, p. 726). If it is true, then future researchers should examine whether children derive different meanings from the consequences that parents provide.

Snyder and Patterson (1995) illustrated the implications of the matching law for the coercion hypothesis. Reviews of prior research had criticized behaviorally based parent training on the grounds that conduct problem children could not be distinguished from control children in terms of differential reinforcement for their coercive behavior (Maccoby, 1992). Consistent with past results, Snyder and Patterson (1995) found that conduct problem children could not be distinguished from control children in the *absolute* rates of reinforcement for coercive behavior. There were, however, significant differences with respect to the *relative* effectiveness of coercive behavior. For aggressive children, coercive behavior was more effective than noncoercive behavior in terminating conflicts with parents. The opposite was true for control children. Moreover, information about the relative payoffs for each child's use of coercion significantly



predicted child coerciveness several weeks later. One interpretation of these findings is that parents of aggressive children do a poor job of disciplining their children; equally viable is the possibility that aggressive children, perhaps for a mix of reasons, are more adept at using coercion instrumentally.

## Wahler's Social Continuity Hypothesis

Parental instructions are thought to be the primary opening gambit in the coercive struggle between parents and their aggressive children. According to the coercion hypothesis, children use coercion to escape from the demands associated with parents' requests, prohibitions, and instructions (Patterson, 1982; Snyder & Patterson, 1995). Despite empirical support for the utility of the coercion hypothesis in predicting child coercion (Snyder & Patterson, 1995), some studies have indicated that other mechanisms are at work. For example, Wahler and Dumas (1986) found that only 10% of the coercive exchanges within families of conduct problem children began as a result of children responding to parental demands. This finding raises the question of what function is served by children's *initiation* of coercive behavior, if not to escape from parents' demands.

Wahler and Dumas (1986) proposed that high rates of coercive behavior represented an attempt by conduct problem children to escape from unpredictable family environments. Said differently, conduct problem children initiate a large proportion of coercive exchanges with parents in order to generate predictability. Support for their *predictability hypothesis* comes from studies showing that both humans and nonhumans prefer predictable over unpredictable environments and behave in ways that increase predictability. As expected, analyses of the reinforcement arrangements experienced by conduct problem children illustrated that mothers were more likely to behave in a predictable fashion when children used coercive rather than noncoercive behavior (Wahler & Dumas, 1986). Extending the predictability hypothesis, Wahler (1994, 1997) argued for a conceptualization of child conduct disorder that emphasizes *social continuity*. According to this formulation, conduct problems arise from an absence of continuity or predictability in the child's relationship with important others—particularly parents. Children whose relationships lack predictability tend to generate it through coerciveness, but this short-term strategy interferes with the [p. 400 ↓ ] development

of skills needed for social continuity in the long run. Thus, preschoolers who engage in disruptive behavior at home may continue such behavior at school, but in both contexts coercion interferes with the acquisition of social skills necessary for generating more stable and satisfying relationships later in life (Moffitt, 1993).

In contrast to efforts to revise operant learning assumptions that underlie PMT, there is a surprising lack of research that draws on non-operant theories of learning. Below, we consider the potential benefits of applying the principles of observational learning or classical conditioning to parent-based interventions for aggressive children.

## Observational Learning

Researchers and clinicians generally recognize the importance of *observational learning* in the development of children's aggressive behavior (Eron, 1987; Patterson, Reid, & Dishion, 1992), based primarily on studies demonstrating that children will imitate the behavior of aggressive models (Bandura, 1973). There is also an abiding assumption that children learn a variety of antisocial and prosocial behaviors by observing the actions of their parents (e.g., Pettit, Dodge, & Brown, 1988). But seldom have researchers investigated which behaviors modeled by which parents are likely to be imitated by which children. What has been attempted is intriguing, but the findings generally are based on analog studies and are in need of replication. For example, some studies have suggested that children imitate the behavior of powerful adults (e.g., Bussey & Bandura, 1984) and tune out or treat with coercion adults who are powerless (Bugental, Lyon, Lin, McGrath, & Bimbela, 1999; Kees, 1999). Unsettled is the extent to which observational learning affects children's behavior in naturalistic settings (e.g., Kuczynski, Zahn-Waxler, & Radke-Yarrow, 1987). Also lacking are studies that consider — in the context of an ongoing parent-child relationship—variables that are known to affect the impact of adult models on child observers (Eron, 1987; Richters & Waters, 1991). Admittedly, there are difficulties in assessing imitative processes in real-world settings and in separating these processes from co-occurring operant mechanisms (Patterson, Reid, & Dishion, 1992). For example, the deleterious influence of deviant peers on adolescent problem behavior was once thought to be a function of imitation; more recent studies suggest that the causal relation is at least partly determined

by reinforcement contingencies provided by peers (Dishion, Spracklen, Andrews, & Patterson, 1996).

Perhaps because of the complexities involved, researchers have shown little interest in expanding the role of observational learning in parent-based interventions. It may be time to end this apparent moratorium and reconsider the role of imitation in the development of children's antisocial behavior and prosocial values (Cavell, 2000). PMT programs indirectly address issues of modeling by encouraging parents to establish clear rules and to use nonviolent forms of discipline (e.g., time out), but does PMT capitalize fully on parents' potential to model prosocial behavior? Is there merit in trying to apply research on the characteristics of effective models to parent-based interventions? Are practitioners attending adequately to the behaviors a parent models or to the behaviors a parent allows to be modeled in the home (e.g., via television or video games)? How do individual differences in children affect how they construe and follow their parents' examples? Under what relationship conditions are parents' explicitly stated values likely to take root in the lives of children? Is it possible that commonly recommended parenting techniques could actually detract from parents' efforts to be more effective models? If parents are busy monitoring and contingently reinforcing/punishing their child's behavior, will that detract from the goal of making their own lives an example worth following? Which approach is more compatible with a bilateral view of parent-child dynamics and children's capacity for agency?

*Classical Conditioning.* What relevance do the principles of classical conditioning have for interventions involving parents and aggressive children? How do conditioned emotional responses disrupt the socialization process? One possibility involves the two-factor theory of anxiety, in which escape from classically [p. 401 ↓ ] conditioned aversive stimuli is maintained via operant reinforcement. Applied to coercive parent-child interactions, the two-factor theory suggests that parents give in or respond harshly to child coercion in part because of the emotional flooding such behavior elicits (Snyder, Edwards, et al., 1994). Conditioned emotional avoidance could also explain why mothers of conduct problem children are less likely to interact with children engaged in solitary play than are mothers of control children (Wahler, Castellani, Smith, & Keathley, 1996). Aggressive children certainly are capable of making adults emotionally uncomfortable, but it is the parent (or parent figure) who faces this challenge day in and day out over a period of years. vasta (1982) suggested that interventions for

abusive parents should address parents' capacity to tolerate the negative arousal that children's behavior elicits rather than being limited to addressing parents' ability to control child misbehavior. He suggests, for example, that relaxation skills might provide parents with a way to reduce the affective arousal elicited by aversive child behavior. Are there other ways to desensitize parents to unpleasant child behaviors that invite unneeded intervention? For example, is it possible that extended play sessions in which parents follow their child's lead—a common feature of PMT—are capable of serving a counterconditioning function?<sup>1</sup>

The principles of classical conditioning are also reflected in Ducharme's (1996; Ducharme, Atkinson, & Poulton, 2000) errorless compliance training, a parent-based intervention based on the concept of *behavioral momentum*. Behavioral momentum is a term used to describe the tendency for high-frequency behaviors to acquire momentum or a persistence that is independent of the contingencies that operated initially (Nevin, 1992). Although still debated, explanations for behavioral momentum generally are based on classically conditioned associations formed between once-available reinforcing stimuli and coincidental stimuli still present in the environment (Strand, 2000a). In errorless compliance training, parents request only those behaviors that are likely to be performed by their specific child. With each successive phase of training, parents request increasingly difficult behaviors. Preliminary studies have been limited by a lack of random assignment to conditions and by excessive dropout rates, but the findings have been impressive and speak to the value of parents tailoring discipline to fit their children's tendencies (Ducharme, 1996; Ducharme et al., 2000). Ducharme (1996) cautioned that his approach may not be appropriate for children who cooperate with parents' requests but continue to show other kinds of behavior problems.

*Greater Appreciation for the Role of Non-parenting Factors in the Development of Childhood Aggression.* Much of what was known 30 years ago about the origin and trajectory of childhood aggression has undergone substantial revision. At the time, a top-down, unilateral perspective of parent-child interactions was dominant, and fitting easily within that perspective was the argument that misapplied parenting was the primary cause of children's aggression (Patterson, 1982). That view broadened as researchers learned more about nonparenting factors that can promote or reduce antisocial behavior in children. Most of the work we review has focused on the impact

of genetic and extrafamilial factors, although interactions with siblings also may be a significant and understudied source of nonparental influence on children's antisocial behavior (e.g., Bank, Patterson, & Reid, 1996).

## Genetic Influences

Perhaps the strongest challenge to the role of parental influence has come from research looking at the heritability of children's emerging traits and abilities (Harris, 1995; Scarr, 1992). Indeed, recent findings from behavioral genetics have called into question long-standing assumptions about the relation between parenting practices and children's development. Researchers who study childhood aggression no longer can assume that parenting behavior and other aspects of children's shared environment act independently of genetic factors. It is also true, however, that the nature-versus-nurture debate takes some interesting twists when the focus is childhood aggression. For example, in contrast to studies that consistently find a much stronger role for genetic effects in the development of [p. 402 ↓ ] intellectual abilities, academic achievement, or even certain personality traits, studies of the heritability of aggression and delinquency generally support the role of both genetic and environmental (shared or unshared) factors (Deater-Deckard & Plomin, 1999; Edelbrock, Rende, Plomin, & Thompson, 1995; Plomin, 1989). Thus, the degree to which children eschew prosocial values and rely on antisocial forms of behavior continues to be an issue that deserves parents' effort and attention.

A second twist relates to the claim that genetic factors exert a dominant influence in families that offer species-normal (nonabusive) child-rearing opportunities (Scarr, 1992). Stoolmiller (1999) has cautioned against drawing strong conclusions about the role of genetic influence when the samples studied represent a restricted range of family environments. Even if not abusive, the overly punitive and rejecting tendencies that characterize parents of aggressive children (Patterson, Reid, & Dishion, 1992; Shaw, Bell, & Gilliom, 2000) would likely fall outside the range of "good enough" parenting (Baumrind, 1993). Thus, one would expect parenting variables to have a greater impact on the development of children reared in these families.

A third twist is that findings from PMT outcome studies are often cited as experimental evidence that parenting practices significantly affect children's behavior and subsequent development (e.g., Collins et al., 2000). This argument has not gone unchallenged by behavior geneticists, who continue to debate the influence of parental socialization efforts (Harris, 2000; Rowe, 2001). Rowe (2001), for example, dismissed claims that interventions involving parents are an effective way to change children's behavior:

If this were really easy or effective on a large scale, it would have been done already. It is not a minor matter to ask parents—who may have personality problems of their own—to behave with the equanimity of a saint toward an aggressive and impulsive child who constantly pushes their buttons.... I invite readers of Collins et al. (2000) to examine in detail the highly touted study by Forgatch and DeGarmo (1999). Their original randomized experiment was a dashing failure—it produced not a single improvement in child adjustment. (pp. 168–169)

Collins et al. (2000; Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2001) concede that parental influence has been overestimated by previous socialization researchers, but they are reluctant to dismiss entirely the possibility that parents are important players in their children's postnatal development. In making a case for nature *with* nurture, Collins et al. (2000) contend that main effects for either heredity or environment are often qualified by moderator effects that “are the rule, not the exception” (p. 228) in studies of children's development. The need to attend to possible gene  $\times$  environment interactions is especially relevant to childhood aggression, given recent reports indicating multiple pathways to the development of children's conscience (Kochanska, 1995, 1997) and antisocial tendencies (Wootton, Frick, Shelton, & Silverthorn, 1997). Children who are temperamentally fearless or who show signs of callous and unemotional traits are thought to be less responsive to parental discipline than their more fearful, less callous counterparts, suggesting the possibility that children's genetically endowed characteristics moderate the influence of parents' socialization efforts.

## Peer Influences

There have also been significant advances in our understanding of peer influences on children's antisocial behavior. Indeed, Harris (1995) has argued that nonfamilial groups, in particular the peer group, influence children's development to a far greater degree than do parents. Harris's group socialization theory does not focus specifically on the development of childhood aggression, but the relation between deviant peer involvement and later problem behavior is well documented (Patterson, Reid, & Dishion, 1992). Recent investigations into the nature of this relation reveal that deviant peers play a role in the escalation, and perhaps the emergence, of antisocial behavior (e.g., Patterson, Dishion, & Yoerger, 2000). Patterson, Dishion, et al. (2000) reported that interactions with deviant peers predicted additional growth [p. 403 ↓ ] in children's performance of antisocial behavior, even when controlling for earlier associations with deviant peers.

Appreciation for the role of peer influences is increasingly evident in the treatment literature. For example, therapists have been cautioned to avoid the potential iatrogenic effects that can result when deviant youth are brought together in a common treatment setting (Dishion, McCord, & Poulin, 1999). In multi-systemic therapy (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1997), the expectation is that therapists have the support and flexibility to intervene directly and on site if necessary to reduce target youths' association with deviant peers. Of course, researchers who study the influence of deviant peers must recognize that children co-construct these experiences, especially when they engage in selective "shopping" for like-minded peers (Dishion, Capaldi, et al., 1995).

## Macro-Level Influences

The influence of macro-social variables on the development of childhood aggression also has undergone increased examination since the start of PMT. Patterson and colleagues (Patterson, DeBaryshe, & Ramsey, 1989; Patterson, Reid, & Dishion, 1992) distinguished between micro-social processes and macro-level factors that

are associated with antisocial behavior in youth. Micro-social processes (e.g., escape conditioning) are thought to govern the moment-to-moment interactions between parents and children that lead directly to children's use of coercion as a prominent influence strategy (Patterson, 1982). As noted earlier, Patterson views these processes as attributable to poor parenting, in particular inept discipline and inadequate monitoring. Macro-level variables, on the other hand, are contextual factors that are also related to children's problem behavior. Among these are poverty, family stress, and neighborhood violence. Patterson has argued that macro-level variables have little direct association with children's antisocial behavior; instead, these factors are thought to disrupt parenting, which is considered the more proximal determinant of childhood aggression. More recently, however, investigators have begun to suspect that certain aspects of children's nonfamilial ecology may have direct effects on their aggressive, antisocial behavior. Among these factors are the level of aggression that exists within schools and classrooms (Stormshak, Bierman, Bruschi, et al., 1999), the quality of children's relationships with teachers (Hughes, Cavell, & Willson, 2001), children's exposure to neighborhood crime and violence (Ingoldsby & Shaw, 2002), and the consumption of violent media (Dill & Dill, 1998; villani, 2001). Although more research is needed to clarify the degree of influence among these different macro-level variables, it would seem neither that poor parenting is not the singular, common path to childhood aggression it was once thought to be nor that children are passive recipients of nonparental, macro-level influences.

## Revised Models of Parents' Influence on the Development of Children's Aggression

Conceptual models describing the specific mechanisms of parental influence continue to evolve, and changes in these models could have direct bearing on interventions for parents and aggressive children. one key shift is a growing recognition that the emotional tone of the parent-child relationship can influence the development of children's antisocial behavior. A second key change, reflected in the theme of this book, is a greater appreciation for the bidirectional nature of relationships involving aggressive children and their parents.



# The Affective Quality of the Parent-Child Relationship

Patterson and colleagues (Patterson, 1986a; Stoolmiller, Patterson, & Snyder, 1997) generally have maintained that inadvertent reinforcement of child coercion is the parenting practice most responsible for the development of children's aggression. Emotionally harsh and overly punitive parenting is also important because it places “everyone in the immediate social environment at risk for exposure to escape and avoidance contingencies that may produce outcomes [p. 404 ↓ ] that are both dramatic and disruptive” (Patterson, Reid, & Dishion, 1992, p. 56). But the affective quality of the parent-child relationship, including parenting that is harsh and rejecting, is thought to be more by-product than cause of children's coercive actions. Other researchers have questioned this interpretation, contending that emotionally negative parenting can reduce the effectiveness of parental discipline (e.g., Eron, 1987) or provoke children to act coercively (Gardner, 1987; Greenberg & Speltz, 1988; Maccoby, 1980). Relevant here is the work of Shaw and his colleagues (Shaw et al., 2000), who measured maternal responsiveness and rejection when children were 12 and 24 months of age. These investigators found strong evidence that coercive exchanges between low-income mothers and their children began well before the preschool years and were associated with mothers' tendency to be emotionally rejecting. Richters and Waters (1991) theorized that attachment-related variables serve a motivating function such that securely attached children are more apt to identify with parents and to invest in parents' values and beliefs. Regardless of the particular pathways or mechanisms involved, the affective quality of the parent-child relationship is now recognized as a significant factor in the development of childhood aggression, and both children and parents contribute to the coercive dance (Dumas, LaFreniere, & Serketich, 1995; Patterson, Reid, & Dishion, 1992; Wahler, 1994).

In some studies, maladaptive child outcomes are linked to a deficit in positive or emotionally supportive parenting (Dumas, 1996; Gardner, 1987; Pettit & Bates, 1989). In most studies, however, it is the damaging effects of harsh, overly punitive parenting that are revealed. In fact, a recent study of parenting practices associated

with children's conduct problems concluded that “punitive discipline is clearly a core parenting deficit and may be the most relevant parenting problem to work on with children and families in clinical settings” (Stormshak, Bierman, McMahon, Lengua, & Conduct Problems Prevention Research Group, 2000, p. 27). In some families, overly punitive parenting is so extreme as to constitute abuse. Because maltreated children are known to be at risk for aggressive behavior, as well as for the mechanisms (e.g., disorganized attachment, emotional dysregulation, impaired social cognitions) that seem to mediate the relation between abusive parenting and childhood aggression (Winkle & Wolfe, 1996), harsh parenting is further implicated as a contributing factor to children's antisocial behavior.

## Bidirectional Models of Parent-Child Influence

This entire volume, of course, is testament to the significance now being accorded to bidirectional or bilateral models of parent-child relationships. As mentioned at the start of this chapter, the notion that aggressive children hold considerable power and act with agency to influence others is not in doubt. Indeed, in some families, the better question is whether parents have the wherewithal to influence their aggressive children. Recent studies illustrate the degree to which traditional assumptions about hierarchical power are a poor fit for many parent-child dyads, especially those involving aggressive children. Bugental and other researchers have reported that adults who feel powerless tend to regard children as hostile and threatening, to experience greater levels of negative arousal, and to use overly harsh punishment (Bugental, Brown, & Reiss, 1996; Bugental, Lewis, Lin, Lyon, & Kopeikin, 1999; Lewis, 1999). The pattern exhibited by powerless parents is compounded by a propensity for children to tune out or treat with coercion adults who are powerless (Bugental, Lyon, et al., 1999; Kees, 1999) and to imitate the behavior of adults who are seen as powerful (e.g., Bussey & Bandura, 1984). For families with aggressive children, perceived power or social dominance relations could hold even greater significance (Omark, Strayer, & Freedman, 1980; Scott, 1992). In many of these families, power is expressed coercively and distributed less hierarchically, and in some cases it is skewed in the opposite direction, with aggressive

children as the most dominant members (Patterson, 1982; Patterson, Reid, & Dishion, 1992).

It also appears that aggressive children may lack what Cavell (2000; Schneider, Cavell, & Hughes, 2000) calls *a sense of containment*. Schneider, Cavell, and Hughes (in press) [p. 405 ↓ ] found that a child's sense of containment, operationalized as self-reports about adults' capacity to impose firm limits and to prevail if there is a conflict in goals, significantly predicted children's level of externalizing problems. Children with a stronger sense of containment evinced less problem behavior even when parents' use of harsh, inept discipline was statistically controlled. Containment beliefs also interacted with ineffective discipline to predict level of externalizing problems. For children with relatively high containment scores, the relation between ineffective discipline and problem behavior was significant and positive; for children with low containment scores, ineffective discipline was unrelated to problem behavior. For this latter group, the quality of the mother-child relationship was a better (negative) predictor, a finding that echoes results from Kochanska's (1995, 1997) studies of temperamentally fearless children (see above).

A bilateral view of parents' relationships with aggressive children also fits with recent attempts to investigate children's use of situational compliance and covert forms of antisocial behavior. Kochanska has distinguished between committed and situational forms of child compliance (Kochanska, 1995; Kochanska, Aksan, & Koenig, 1995; Kochanska, Coy, & Murray, 2001). In *committed compliance*, children appear to accept parents' agenda as their own; in *situational compliance*, "children, although essentially cooperative, do not appear to embrace wholeheartedly the maternal agenda. Such compliance is 'shaky' and seems contingent on sustained maternal control" (Kochanska, Coy, et al., 2001, p. 1092). The two forms of compliance follow different developmental trajectories, with greater longitudinal continuity being evident for committed compliance than for situational compliance (Kochanska, Aksan, et al., 1995). More important, Kochanska, Aksan, et al. (1995) found that measures of committed and situational compliance were negatively correlated ( $r = -.56$ ). Thus, it appears that situational compliance could reflect a form of child resistance or secondary adjustment (see Kuczynski, [Chapter 1](#), this volume) in which autonomy is exerted in a way that avoids open defiance of parental authority.

Cavell (2000; Loss, Cavell, Hughes, & Stefanov, 2000) has suggested that young children who display covert antisocial behavior (CAB) might also be trying to resist with impunity strong parental authority, especially if that authority is not balanced by emotional acceptance. However, the prevailing view among researchers is that CAB does not emerge until early adolescence, when children are likely to be influenced (more or less passively) by deviant peers (Loeber & Hay, 1994; Patterson & Yoerger, 1999). If Cavell's hypothesis is correct, then CAB could have a much earlier onset than previously thought. Testing this hypothesis, however, requires assessment instruments appropriate for younger children (Loss et al., 2000; Willoughby, Kupersmidt, & Bryant, 2001). Past attempts to measure CAB have relied heavily on measures in which the content is nearly synonymous with delinquency, owing to the belief that CAB is primarily an adolescent phenomenon.

## Summary

For the past 30 or more years, the core curriculum of PMT has remained relatively intact as the study of childhood aggression moved forward, thereby creating a growing disconnect between what researchers know and what therapists are supposed to do. There have been nagging concerns about the degree to which treatment gains following PMT generalize over time and across diverse settings and samples, especially samples that include older, more aggressive children from disadvantaged, multiproblem families. Also disconcerting are unresolved questions about the mechanisms of change in parent-based interventions, although recent studies of the behaviorally based assumptions underlying PMT have made valuable contributions to this effort. PMT programs have not kept pace with recent studies that examine the role of parenting or nonparenting factors in the development of childhood aggression. In reviewing this literature, one also is struck by the pervasive, though mainly tacit, influence of a unilateral view of parent-child relations. Given the wide gap between extant research and current approaches to PMT, a reconceptualization [p. 406 ↓ ] of the strategies used to aid parents of aggressive children is needed. We consider next the implications that recent empirical and theoretical advances have for parent-based interventions.

# Rethinking Parent-Based Interventions for Aggressive Children: An Agenda for Future Researchers and a Framework for Practitioners

As a way to organize the implications of recent empirical and theoretical advances, we offer a working list of 10 principles to guide parent-based interventions for families with aggressive children. This list is neither definitive nor exhaustive, and we have intentionally used wording that is less cautious and more provocative than is perhaps justified given the state of the science. Empirical (albeit primarily correlational) support exists for each of these principles, but attempts to articulate and integrate these principles into a coherent framework is fairly recent (Cavell, 2000, 2001; Strand, 2000a, 2000b). As such, these principles also represent a research agenda for investigators seeking to develop and evaluate alternative interventions for aggressive children. Indeed, our primary goal here is to suggest a paradigmatic shift in how researchers and practitioners think about the therapeutic task of working with aggressive children and their parents.

## Principle 1. The Long-Term Socialization of Aggressive Children Takes Precedence over the Short-Term Management of Behavior

We begin by stating the obvious: The goal of socializing children into a system of shared, prosocial commerce (Richters & Waters, 1991) is an important goal for parents generally and a paramount goal for parents of aggressive children. We make this point explicitly because parents can err in overestimating their capacity to influence some

child outcomes (e.g., intellectual functioning) while underestimating the value of actively pursuing this particular parenting goal. Professionals who work therapeutically with parents must be cautious about drawing parents' attention away from the long-term goal of socializing their aggressive child (Cavell, 2001). Child compliance to parents' commands has long been a venerated goal of PMT, and noncompliance is a frequently heard complaint of parents seeking help with their difficult child. There is also a well-documented empirical relation between early displays of child noncompliance and later aggression (Patterson, Reid, & Dishion, 1992). Nevertheless, these reasons do not adequately justify the heavy emphasis in PMT on strategies designed to gain child compliance (see below) or the relative lack of emphasis on strategies that promote long-term socialization and the development of prosocial behavior (Cavell, 2000, 2001; Strand, 2000b). Therefore, a reformulated model of parent-based intervention must begin and end with this larger, more important goal.

We contend that this single shift in emphasis has tremendous implications for the way parents and practitioners approach the task of socializing aggressive children. It is a point of view that better reflects the chronic course of childhood aggression. This perspective also encourages practitioners and researchers to break from traditional notions about how to intervene in the lives of conduct disordered youth (Kazdin, 1993). By adopting a long-term socialization focus, it becomes possible to generate new, empirically testable strategies that are not currently a part of the PMT curriculum.

## Principle 2. The Parent-Child Relationship is a Useful Vehicle for Socializing Aggressive Children

What is it that parents should do if committed to the long-term goal of socializing their aggressive child? Where should they put their time and energy in the light of other demands in their life? We propose that aggressive children are likely to benefit when they co-participate with parents in what Cavell (2000) calls a *socializing relationship*. A socializing relationship is one that enhances children's prosocial development while reducing their future involvement in antisocial activities (see also Strand, in press). In

proposing a relationship-based model [p. 407 ↓ ] of socialization, we are recommending that parents put their energy and attention into managing effectively the relationships they have with their aggressive children. This recommendation stands in contrast to the dominant focus of PMT, which is parents' management of children's behavior. Effectively managing the behavior of an aggressive child is important, but how parents respond to a child's behavior in specific situations cannot be understood apart from the overall context of the parent-child relationship (Baumrind, 1971; Cavell, 2000, 2001; Costanzo, 2002; Dumas, 1996; Kuczynski & Hildebrandt, 1997; Maccoby, 1980; Richters & Waters, 1991; Strand, 2000b). In its most extreme form, an operant model of parent-based intervention casts parenting as a recurring process of matching the right behavior modification technique with the specific problem behavior (e.g., Christophersen & Mortweet, 2001). Not only are individual differences among parents and children downplayed, but their history and future as co-participants in a close, emotional relationship also are ignored. Fortunately, most PMT programs are not so extreme, but managing a child's behavior according to the principles of operant conditioning remains a dominant theme.

By framing parental socialization efforts in this molar fashion, we are not dismissing the need to attend to micro-level processes that function as important building blocks in any close relationship. Instead, we are suggesting that researchers and practitioners appreciate the broader, temporal context in which these processes occur. As Kuczynski and Hildebrandt (1997) note, a relationship-based model of socialization “gives a time dimension to parent-child interactions” (p. 236). A relationship-based perspective can be used to understand how parents and children co-adapt to past interactions as well as how they plan to respond to future interactions. Multiple factors influence the outcome of a given parent-child interaction, only some of which exist within the finite space and time immediately before, during, and after an interaction takes place. A molar-level, relationship-based view of parents' involvement in the socialization of aggressive children can help explain this multivariate mix (Cook, 2000; Kochanska & Murray, 2000). Working from a broader conceptual viewpoint also can shed light on the relationship between parent-child interactions and (a) the overall level and the relative distribution of reinforcement available to parents and to children (both within and outside of the dyad), (b) the influence of individual differences in the participants (e.g., maternal depression, child ADHD), and (c) the role of distal setting events (e.g., aversive adult-

adult interactions) and broader ecological factors (e.g., neighborhood violence, deviant peers). We should note that in this chapter, the focus is on the parent-child relationship as a vehicle for socialization; it is possible, however, that aggressive children's close relationships with other adults (e.g., grandparents, foster parents, teachers, mentors) or with prosocial peers also could be beneficial.

## Principle 3. Socializing Relationships Provide Aggressive Children, over Time, with Emotional Acceptance, Behavioral Containment, and Prosocial Values

Assuming that the parent-child relationship is an important vehicle by which aggressive children are socialized, what are the parameters of an effective, socializing relationship? More specifically, what kind of parent-child relationship is likely to alter the negative developmental trajectory that typifies aggressive children? Definitive answers to these questions await further study, but Cavell (2000) offers the following supposition: *Socializing relationships provide aggressive children, over time, with emotional acceptance, behavioral containment, and prosocial values.* A number of implications flow from this supposition. one is that the topography of specific parenting behaviors is less important than their functional value (Jacobson, 1992). Practitioners therefore must be careful about assuming that a given parenting technique will lead invariably to an increase in the necessary conditions for effective socialization. For example, how parents use punishment and how children respond to punishment are not always straightforward in families with aggressive children (Patterson, Reid, & Dishion, 1992), and aggressive children may have unique [p. 408 ↓ ] ways of interpreting the meaning of parents' disciplinary behavior (Schneider et al., in press).

A second implication is that failure to provide these relationship conditions, over time, will greatly reduce the chances that parents can socialize their aggressive child. This implication helps explain why childhood aggression is so persistent in its course and so resistant to treatment. Aggressive children tend to behave in ways that make it hard for



adults to like them *or* discipline them, much less like them *and* discipline them. There is also reason to believe that parents of aggressive children are more apt to model behaviors and espouse beliefs that are decidedly antisocial (Pettit, Dodge, et al., 1988; Tapscott, Frick, Wootton, & Kruh, 1996). Cavell (2000) contends that *all* three parenting factors—acceptance, containment, and prosocial values—are integral to a socializing relationship. Moreover, parents have to be able to provide these relationship conditions over an extended period of time. Exactly how long is not known, but even if the time frame were only a year or two, the parenting model proposed by Cavell (2000) sets a high standard on what must happen if parents hope to have a socializing effect on their aggressive child.

The idea that parenting is a multifaceted task is certainly not new, and Baumrind's (1971) observation that authoritative parents combine responsiveness and demandingness is but one, well-known, case in point. It is also true that PMT programs routinely target both the positive and the disciplinary aspects of parenting, as witnessed by the common pairing of child-directed and parent-directed skills training (Eyberg, 1988; Forehand & McMahon, 1981; Webster-Stratton, 1987). However, the model of parenting that is implied (if not explicitly presented) in PMT is one that treats positive parenting and discipline practices in a piecemeal fashion. Parents are expected to use both, but rarely considered is the challenge of performing both tasks more or less simultaneously over time. The temporal and practical separation of these two parenting tasks can be particularly problematic for parents of aggressive children. These parents have to find ways to restrict their child's use of coercion while not resorting to coercion themselves (Patterson, Reid, & Dishion, 1992). Thus, what is novel about Cavell's (2000) supposition is that it calls for a model of parenting (and parent-based intervention) that integrates these often opposing tasks into a single, coordinated system that is applied over a period of years.

## Principle 4. The Ratio of Emotional Acceptance to Behavioral Containment

## is a Key Parameter of the Socializing Relationship

As just noted, research generally has shown that effective parents respond successfully to two competing demands: (a) the need to impose strict limits on unacceptable behavior, and (b) the challenge of maintaining an emotionally positive parent-child relationship (Baumrind, 1971; Maccoby & Martin, 1983). Parents give their children opportunities to learn right from wrong without feeling threatened, emotionally or relationally. Parents of aggressive children struggle with these competing demands. They may pursue one goal but not the other, switch back and forth between goals depending on mood, or simply give up both goals out of a sense of frustration and futility (Patterson, Reid, & Dishion, 1992; Wahler & Dumas, 1989; Webster-Stratton & Spitzer, 1996). Despite the difficulties these parents face, there still remains the need to address *both* demands in an integrated fashion. Our recommendation, therefore, is that parents of aggressive children adhere to a level of discipline that is continually yoked to the level of positive emotional exchanges in the parent-child relationship.

This recommendation is based, in part, on findings from several recent studies that converge on the idea that the ratio of positive to negative exchanges is an important parameter for distinguishing between functional and dysfunctional interpersonal relationships. Relationships tend to be more stable and more adaptive when the proportion of positive emotional experiences consistently exceeds the proportion of negative emotional experiences (Dumas, 1996; Dumas, LaFreniere, et al., 1995; Friman, Jones, Smith, Daly, & Larzelere, 1997; Hart & Risley, 1995; Latham, 1992; Wahler, Herring, & Edwards, 2001). For example, Dumas (1996) found that mothers of nondisruptive children expressed positive affect toward [p. 409 ↓] their children about 80% of the time (i.e., a 4:1 ratio), whereas mothers of disruptive children expressed positive affect only 30% of the time. Hart and Risley (1995) reported that parents of young preschool children maintained a 6:1 ratio of positive-to-negative comments, and Wahler, Herring, et al. (2001) found that mothers of school-age children initiated only one instruction-compliance exchange for every seven positive social exchanges their child initiated. Other studies report similar ratios for teacher-student, staff-resident, and

adult couple relationships. Latham (1992) found that effective teachers maintained an 8:1 ratio of positive to negative interactions with the students in their classrooms. Friman et al. (1997) found that an intervention designed to increase the positive to negative interactional ratios of adolescent boys in a residential facility significantly decreased their level of disruptive behavior. Gottman's 1994 research indicated that a 5:1 ratio of positive to negative emotions was characteristic of stable marriages, despite the fact that stable couples varied greatly in how they dealt with conflict: Some avoided conflict, some faced it calmly and rationally, and others engaged in rather intense negative emotional exchanges that were followed by similarly intense positive emotional exchanges. From a matching law perspective, a positive interactional ratio would appear to provide dyadic partners with an overall level of reinforcement that reduces the relative payoffs for aversive behavior (McDowell, 1982).

These findings have potentially far-reaching implications for those who study and intervene with families of aggressive children. The most important implication is that the ratio of positive to negative exchanges is a key parameter in a socializing relationship (Cavell, 2000, 2001). The specific value of that ratio awaits further research, but presumably it would fall within the range of published values (4:1 to 8:1). Given the validity of such a ratio, it would also appear that parents of aggressive children must work within a kind of "quota system" in which their efforts to manage misbehavior are limited by the need to maintain a proper balance of positive to negative exchanges. Most parents, including those with aggressive children, can easily generate reasons why their child *should* perform this or that prosocial behavior or why their child *should* desist in using certain undesirable behaviors. Parents' expectations for child behavior can exist separately, however, from what is feasible or from what the parent-child relationship can tolerate. In addition, parents' expectations, however reasonable, will matter little if the affective tone of the parent-child relationship becomes too negative as a consequence of recurring efforts to realize those expectations. Even parents who learn to use empirically supported behavior management techniques are likely to find that aggressive children will continue to display noncompliant and coercive behavior (Forgatch, 1991; Roberts & Powers, 1988) thereby increasing the risk of parents' own coerciveness (Cavell, 2001). If the parent-child relationship drops below a certain ratio of positive to negative emotional exchanges, parents could be jeopardizing their child's future socialization (Dumas, 1996; Kochanska, 1997; Kochanska & Murray, 2000;

Richters & Waters, 1991; Wahler, 1994, 1997). In sum, parenting an aggressive child requires a disciplinary approach that is forceful enough to counter the child's antisocial tendencies but not so forceful that it spoils the affective quality of the parent-child relationship.

## Principle 5. Characteristics of the Parent, the Child, and the Ecology Surrounding the Parent-Child Relationship Can Affect the Degree to Which Socializing Relationships are Established and Maintained

In theory, parents whose children are generally cooperative and responsive to discipline are under the same quota system as parents of aggressive children. That possibility is likely to go unappreciated, however, if the children meet most of, if not all, parents' expectations. If their parents typically are calm and deliberate, then the idea that parents are working under a "quota" seems even less tenable: They can set high expectations for their children, their children typically meet those high expectations, and the parent-child relationship is none the worse. But there are other families—high-risk families—that operate under a different set of child-rearing [p. 410 ↓] circumstances. The children are uncooperative and coercive, and the parents are inconsistent and emotionally reactive. Typically added to this unfortunate mix are such things as economic stress, marital strife, poor schools, and neighborhood violence. It is little wonder, then, why frequent and extended chains of mutual coercion are common in some homes. Individual differences in the risk factors for parents and for children, as well as variability across caregiving contexts, can substantially influence the degree to which parents can establish and maintain a socializing relationship. Families with aggressive children carry a disproportionate share of those risk factors.

## Principle 6. The Primary Goal of Parent-Based Interventions for Aggressive Children is Helping Parents Establish and Sustain a Socializing Relationship

The preceding guidelines suggest the parent-child relationship is a useful vehicle for socialization but that the conditions required for that relationship are elusive goals for many parents of aggressive children. As a result, the enterprise of parent-based interventions for aggressive children represents a complex and often difficult therapeutic undertaking. The term *parent training* fails to convey the complexity of this work, inviting instead a perception that parents need only participate in PMT in order to benefit. Cavell (2000) uses the term *parent therapy*—similar to “marital therapy”—to emphasize the goal of helping parents and children improve a relationship that is going badly. In fact, there are a number of parallels between couples therapy and what we are recommending for parents of aggressive children. Recent versions of behavioral marital therapy have begun to emphasize (a) the developmental history and quality of the relationship in addition to partners' relationship skills; (b) the role of individual differences, especially partners' approaches to conflict management; and (c) the value of both acceptance and change as means of enhancing relationship quality (Halford, 1998; Jacobson, 1992; Lawrence, Eldridge, & Christiansen, 1998).

Interestingly, these parallels have had little if any impact on the conduct of PMT. Assumptions about the vertical nature of the parent-child relationship appear to have created a rarely crossed boundary between marital therapy research and parent intervention research. As a result, the field has adhered to a model of intervention that places greater emphasis on parenting skills than on parenting relationships. In PMT, parents are considered the sole arbiters of whether a child's behavior is acceptable or unacceptable (assuming the absence of maltreatment) and whether that behavior is deserving of rewards or punishment. Children's own goals and the strategies for pursuing those goals are given short shrift. If parents and children have conflicting goals, and if children persist in pursuing their own goals, then parents are likely to

regard that persistence as noncompliance, misbehavior, or disrespect (Dix, 1991). When goal conflicts between parents and children become child misbehavior, then parents are expected to discipline children. When parents cannot effectively manage their children's misbehavior, they are seen as inept—a view they may come to agree with because there is little room in a unilateral model of parent-child relationships for parents accommodating to children's goals and tendencies (cf. Sheeber & Johnson, 1994).

Needed is an approach to parent therapy that asks parents the following question: “How can the two of you—you and your child—live peaceably together in a way that does not promote your child's use of antisocial behavior?” Cavell's (2000) responsive parent therapy (RPT) model is one attempt at that approach. It is a conceptual framework for working with parents of aggressive children that builds on the rich base of knowledge that exists both within and outside the PMT literature. The chief goal of RPT is to help parents and aggressive children establish and maintain a socializing relationship characterized by emotional acceptance, behavioral containment, and prosocial values. The challenge, of course, is finding a way to accomplish that goal given the characteristics of the parent, the child, and the child-rearing context. Integral to the RPT model are the twin themes of minimalism and sustainability. Instead of presenting to parents of aggressive [p. 411 ↓ ] children a standard set of behavior management skills, the primary task of the practitioner is to help parents identify the strategies that provide (at least) minimum coverage but maximum sustainability of the relationship conditions necessary for an effective socializing relationship. Because of this emphasis, the lower boundaries of a socializing relationship are often the point at which therapy begins when working with parents of aggressive children (see below).

## Principle 7. Behavioral Containment Begins with Strict Limits on Aggressive, Antisocial Behavior

If the past three decades of research have taught us anything about the role of parenting in the development of aggression, it is that parents place their children at

risk when they reinforce aggression and other forms of antisocial behavior (Patterson, 1997; Patterson, Reid, & Dishion, 1992). Therefore, any intervention designed to assist parents of aggressive children must address this potential hazard. The typical PMT curriculum certainly reflects the importance of teaching parents to be effective disciplinarians. This goal, however, has not been well integrated within the larger goal of maintaining a parent-child relationship with a proper ratio of positive to negative exchanges. Instead, the tendency has been to train parents to punish children for acts of noncompliance (Cavell, 2001). The basis for this strategy is the view that non-compliance is a “keystone” behavior in the development of children's aggression and therefore should be targeted first before parents attempt to change other child behaviors (Loeber & Schmaling, 1985). Cavell (2001) has questioned both the strategy and its underlying assumptions, arguing that for some parent-child dyads, the recommendation that parents punish noncompliance could seriously detract from the affective quality of their relationship. Cavell (2001) suggested that practitioners tailor their recommendations depending on the characteristics of the parents and children involved. For example, parents who are not overly punitive probably could follow a compliance-based disciplinary strategy without undue damage to the parent-child relationship, especially if their children were not overly aggressive and antisocial. For parents who are prone to being emotionally harsh and whose children are aggressive and antisocial, a different strategy is needed. The goal for these parents is to use discipline that is both effective and *selective*. In considering which behaviors to punish, Cavell (2001) draws from the work of Patterson and colleagues (Patterson, 1986b; Patterson, Reid, & Dishion, 1992) to suggest that a child's use of aggression and other forms of coercion is a more reasonable and developmentally significant disciplinary target than noncompliance. Children can be noncompliant without being aggressive (Kuczynski, Kochanska, Radke-Yarrow, & Girnius-Brown, 1987), and parents should be able to target aggression specifically without targeting noncompliance generally (Ducharme et al., 2000). Thus, for emotionally reactive parents whose children are highly aggressive, effectively containing coercive, antisocial behavior is where discipline should begin.

## Principle 8. Emotional Acceptance Begins with an Implicit Message of Belonging

A strategy of selective containment should help to reduce the probability that parents of aggressive children will be overly punitive. But what can these parents do to increase the *positive* aspects of the parent-child relationship? There would seem to be merit in training parents to use positive parenting skills to improve the affective quality of the relationship. Traditionally, positive parenting has been defined in one of two ways. In the behavioral parent training literature, positive parenting typically has meant the contingent use of positive reinforcement—praising or rewarding children when they behave in prosocial ways. In the developmental literature, positive parenting is most often viewed as warm involvement (Baumrind, 1971; Maccoby & Martin, 1983). Both approaches to positive parenting have empirical support, but parents of aggressive children could find it difficult to sustain either approach. Parents whose attention is disrupted by stressful events in their life or who view good behavior as an uncommon event in their child's life find it hard to be contingently reinforcing (Wahler & Dumas, 1989). Parents who lack the disposition to be warm and agreeable, or who fear that [p. 412 ↓ ] parent-child engagement will elicit aversive demands from strong-willed children, find it hard to respond with warm involvement (Bugental, Lewis, et al., 1999; Wahler, Castellani, et al., 1996). Thus, a different approach to positive parenting is needed for parents who struggle to maintain a proper ratio of positive to negative exchanges with their aggressive child.

Cavell (2000) has suggested that positive parenting is best understood in terms of emotional acceptance. He defines parental acceptance as any behavior that fosters in children a sense of autonomy while not threatening their relationship security. Implicit in this view is the critical distinction between change and acceptance as means of improving the quality of close relationships (Jacobson, 1992). As Jacobson (1992) observed, a healthy relationship “involves the ability to accept the inherent unsolvability of some relationship problems” (p. 502). The construct of emotional acceptance is also closely related to what Baumeister and Leary (1995) called the *need to belong*, which they defined as “the need for frequent, nonaver-sive interactions within an ongoing



relational bond” (p. 497). Based on their extensive literature review, Baumeister and Leary argued that the need to belong is a fundamental human motivation.

The value of defining positive parenting as emotional acceptance is that parents who are ill equipped to be warmly involved or who cannot remember to track and reinforce good behavior can still maintain a posture of acceptance (Cavell, 2000). A *posture of acceptance* is essentially a default mode of interacting in which parental intervention and emotional rejection are the exception and not the rule (Cavell, 2000). This kind of posture is easier to maintain if parents can tolerate or detach psychologically from those child behaviors that are unpleasant or invite unneeded intervention. If that is not possible, then parents may have to adopt a strategy that enables them to avoid interactions that challenge a child's sense of belonging. Although some parents of aggressive children might be capable of using parent-child interactions as a way to communicate *explicit* messages of affection and praise, other parents cannot or will not do this on a consistent basis. Pushing this latter group of parents to interact more frequently and more positively with their aggressive child would be ill advised. A more sustainable and more successful strategy is one in which parents steer clear of parent-child interactions that lead predictably to harsh reactions and unnecessary control attempts. Thus, for parents of aggressive children, emotional acceptance begins with a strategy of selective engagement and *implicit* messages of belonging.

## Principle 9. Prosocial Values Begin with Explicit Statements against Antisocial Behavior

Children whose parents appropriately balance emotional acceptance and behavioral containment have a great advantage over other children: They are given a clear message that they belong in the relationship and a clear message that certain behaviors do not belong in the relationship. Other parental “messages” also are likely to be important for socialization. We are referring here to the information that is contained in the values parents espouse and in the behaviors parents model. Recent studies support the idea that children are influenced by the values and norms of their family

members (e.g., Bogenschneider, Wu, Raffaelli, & Tsay, 1998; Brody, Flor, Hollett-Wright, & McCoy, 1998). For example, Bogenschneider et al. (1998) found that parents' values regarding alcohol use moderated the relation between parenting practices and adolescents' reports of substance use. Specifically, the predicted relation between fathers' monitoring and adolescents' substance use was stronger among adolescents whose fathers held more disapproving views of alcohol use. If children's participation in a socializing relationship facilitates the internalization of parental values (Cavell, 2000; Kuczynski & Hildebrandt, 1997; Richters & Waters, 1991), then it would be helpful if those values were clearly prosocial. That may not be the case, however, especially for aggressive children whose parents have a greater likelihood of evincing antisocial personality disorder or a history of criminal behavior than parents of nonaggressive children (Frick & Jackson, 1993; Tapscott et al., 1996). But children prone to engaging in antisocial behavior may need more than the absence of antisocial norms; they **[p. 413 ↓ ]** may also need strong messages *against* antisocial behavior. Brody et al. (1998) found that family norms against alcohol use that departed even slightly from an abstinence-based message were more likely to be misinterpreted by children with high-risk temperaments. Therefore, our recommendation is that parents of aggressive children begin their efforts to promote prosocial values by making explicit statements against antisocial behavior.

In most PMT programs, the goal of helping parents uphold and espouse prosocial values is more implicit than explicit. In addition, the extent to which parents' own behavior and beliefs are prosocial is rarely the focus of parent-based interventions (Cavell, 2000). Instead, parents' prosocial values are assumed and thus treated as background text that sets the upper limit on children's socialization. Reluctance to focus more directly on parents' own behavior and beliefs may reflect a sense that such actions are intrusive and presumptive (or the fact that previous research has focused heavily on lower-risk families). It would be helpful if practitioners had reliable, nonthreatening strategies they could use to highlight the more prosocial aspects of parents' belief systems. For example, Cavell (2000) described a procedure in which the topics of family norms and parents' beliefs are broached through an exercise in which children are asked to make a poster displaying the family's rules. Because families of aggressive children may lack rules, this exercise provides an opportunity and a prompt for parents

to speak openly about their values and beliefs as well as their expectations for their children.

## Principle 10. Effective Parent-Based Interventions for Aggressive Children Are Multisystemic

To this point, our concerns with traditional approaches to parent training have centered on the failure to appreciate the bilateral dynamics and long-term demands inherent in parent-child relationships. It would be a mistake, however, to conclude that effective parent-based interventions for aggressive, high-risk children are narrowly dyadic in scope. Other systems that affect the parent-child relationship also warrant therapists' attention (Bronfenbrenner, 1977; Cicchetti & Richters, 1993). Among these are the individual "systems" of the parent and the child (e.g., biological, cognitive, affective), nuclear and extended family systems, and larger social systems that transact with the family or its individual members (e.g., school, work, neighborhood, culture). It is now common in the field of family therapy to adopt a perspective that guides assessment and intervention across multiple systems (Cavell, 2000; Henggeler et al., 1997; Nichols & Scwhartz, 2001; Snyder, Cavell, Heffer, & Mangrum, 1995). Proponents of PMT occasionally have targeted issues that go beyond the parent-child dyad (e.g., marital difficulties, maternal depression, social support), but too often these efforts are tacked on as separate pieces to the original cloth of PMT and not woven into the essential fabric of parent therapy (Cavell, 2000). Cavell's RPT model is an exception to this trend. Integral to the RPT model are principles and strategies for enhancing two important but nondyadic areas of functioning: *family structure* and *parental self-care*. When one considers the overall goals of the RPT model, the need to address these two issues is readily apparent. If the ultimate goal of parent therapy is children's induction into a system of prosocial commerce via their sustained participation in a socializing relationship, then issues of family structure and parental self-care loom large. Parents who can find ways to refuel and re-engage in the task of parenting and who can structure and organize their families are better able to contend for a period of years with the challenge of providing high-risk children with a relationship that combines

emotional acceptance, behavioral containment, and prosocial values. Parents who are continually despondent or fatigued, who expect too much of their children emotionally and otherwise, who succumb quickly and easily to the stressful events in their life, or who fail to see or refuse to admit the need to be their family's leader will not provide aggressive children with the kind of relationship they need to develop into law-abiding citizens.

## Conclusion

Our reading of the developmental, family, and treatment literatures revealed significant gaps [p. 414 ↓ ] with respect to what is known about the development of childhood aggression and what typically is recommended as an intervention model for the parents of these children. These gaps reflect the fact that intervention programs that began more than 30 years ago (and are still dominant) were based on theories of development in which parents were seen as the primary architects of the social landscape inhabited by children. Over time, research evidence gradually has added to the list of factors that influence the nature of that landscape, not the least of which is the role played by children themselves. Although these factors have been identified and their implications for treatment have been recorded, little has emerged in the way of new approaches to working with the parents of aggressive children.

In this chapter, we highlighted a set of principles that attempt to bridge the gap between what is known about and what is recommended for parents and their aggressive children. These principles prioritize children's long-term socialization and recognize the parent-child relationship as a vehicle for socialization. Our view is that the primary purpose of parent-based interventions for aggressive children is to help parents establish and sustain a socializing relationship, one that takes into account the unique characteristics of the parent, the child, and the child-rearing context. We discussed the parameters of an effective socializing relationship, in particular the ratio of positive to negative exchanges and the minimum standards for behavioral containment, emotional acceptance, and prosocial values. Finally, we noted that effective interventions for parents of aggressive children are multisystemic, focusing on other systems that affect the parent-child dyad. Especially critical are issues of family structure and parental self-care.

Our hope is that these principles set an agenda for future research. Although based on theoretical and empirical research that spans three decades, the 10 principles require further clarification and thorough testing. This is particularly true for the more molar variables involved: We may know a great deal about how immediate contingencies relate to child compliance, but we have much to learn about the association between interactional ratios in a parent-child relationship and a child's sense of containment. Ideally, these principles will foster innovative research on the outcomes and processes of change in parent-based interventions for aggressive children. We believe that the most promising interventions will view parents and children as co-participants in a close, long-term relationship—a relationship influenced by the social context in which it is embedded and by individual differences in both the parent and the child.

## Note

1. We thank our colleague, Pam Grossman, for this particular insight.

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<http://dx.doi.org/10.4135/9781452229645.n19>

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## Chapter 20: Reconstructing Common Sense: Metaphors of Bidirectionality in Parent-Child Relations

Leon Kuczynski, ed. Susan Lollis, ed. Yuiko Koguchi, ed.

*The whole of science is nothing more than a refinement of everyday thinking. It is for this reason that the critical thinking of the physicist cannot possibly be restricted to the examination of concepts of his own specific field. He cannot proceed without considering critically a much more difficult problem, the problem of analysing the nature of everyday thinking.*

Albert Einstein (1936)

Contemporary research in parent-child relations is increasingly guided by bilateral and relational models of parent-child relationships (Kuczynski, [Chapter 1](#), this volume; Lollis & Kuczynski, 1997). Some propositions, such as bidirectional causality and the active agency of children, are so well accepted that they have achieved the status of self-obvious assertions. Longstanding researchers in the field, however, will remember a

time, dominated by unidirectional models of socialization, when these assumptions were not so obvious. Early assertions that influence is inherently bidirectional (Sears, 1951), that children cognitively construct their knowledge (Piaget), that the infant shapes the child-rearing practices of the parents (Rheingold, 1969), that there is an inescapable effect of children on associations between parental “antecedents” and “child outcomes” (Bell, 1968), and that parent-child relationships were both a product of and a context for parent-child interactions (Hinde, 1979) were all initially difficult to assimilate and continue to be difficult to implement in empirical research (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000).

Authors' Note: Preparation of this chapter was supported by a grant from the Social Sciences and Humanities Research Council of Canada.

**[p. 422 ↓ ]** In this chapter, we look at conceptual barriers to developing theories and implementing research on dynamic process in parent-child interaction. Thus, questions for this chapter concern why bidirectionality and the active role of children had to be discovered at all by science and what would allow us to explore these concepts empirically and implement them in practice. Our thesis is that an important challenge to research is a metaphorical one. A major obstacle to knowledge construction and dissemination is that we do not have ready-made cultural metaphors for bilateral perspectives on parent-child relations and, therefore, such knowledge has a tenuous connection to common sense. This problem of perceiving bidirectionality exists because many of the taken-for-granted concepts of parenting are encapsulated in unidirectional cultural metaphors that facilitate a unidirectional, parent-to-child understanding of parent-child relations and child-rearing processes.

The essence of a metaphor is understanding and experiencing one kind of thing in terms of another. It is a figure of speech in which a word, a phrase, or an image that generally applies to one kind of object or idea is applied to another, thus suggesting connection between them. Common metaphors of children as “blank slates,” “miniature scientists,” “bearers of original sin,” or “children of nature” generate divergent implications that not only guide how children are perceived in everyday life but also form the basis of scientific theory and research. In this chapter, we will provide an overview of how metaphors and other associated natural language devices play a role both in commonsense understandings of phenomena and in the conceptual reasoning of

scientists. We then shift to the role of metaphors as guide to commonsense thinking about parenting in Western and Japanese culture. We will explore the ordinary language of parenting to uncover some of the hidden or taken-for-granted cultural assumptions about parents and children. We will argue that early socialization research was constrained by such commonsense metaphors and that advances in thinking about parenting as a bidirectional process have been guided by the construction of new metaphors that attempt to transcend commonsense understandings.

## Metaphor in Science

The importance of metaphor and natural language in the history of the physical, natural, and social sciences is well recognized (Leatherdale, 1974), and visual metaphors played an important role in advances in physics in the early part of the 20th century (Miller, 1984). Pepper (1942) argued that most theories stem from four root metaphors called world-views: mechanism (the machine), organicism (the living organism), contextualism (the historical event), and formism (similarity). Historically, psychology has been much influenced by the metaphors of formism (trait theories), mechanism (learning theory, information processing), and organicism (cognitive development theory), and currently it is grappling with the metaphor of contextualism (Vygotsky, social construction). Similarly, sociological models of society within sociology have been based on Pepper's root metaphors of the machine and of the organism (Brown, 1977), and recent postmodern theories are based on contextualism.

Many metaphors have been the source of ideas for understanding micro processes of social conduct and social interaction. In sociology, early models of interaction were based on metaphors of language, drama, and the game (Brown, 1977). Models of the family and of family interaction are rich in metaphor (Rosenblatt, 1994). Theoretical metaphors can be found in conceptualization of the family as an entity and as a system, and in the conceptualization of family boundaries, system control, communication, and therapeutic intervention.

Metaphors are the key to scientific model building. A scientific model can be understood as a metaphor whose implications have been spelled out (Brown, 1977). Metaphors give rise to theories that guide data gathering and produce findings that are further



encapsulated in metaphors (Kovecses, 1994). In this view, the use of metaphor in science is not merely a literary frill or rhetorical device (although sometimes metaphors are used rhetorically) but a cognitive process by which experience is organized and meanings are generated and explored on the basis of similarities between concepts. According to Overton (1991), “Metaphor is a [p. 423 ↓ ] process of knowing. Specifically, it is the process of knowing that proceeds from the known to the unknown, and gives meaning to the unknown.... It is the act of construction; the act of giving meaning to the world” (p. 65). A strong metaphor is useful for “identifying something that otherwise has no name, generating hypotheses, clarifying perspectives when alternative metaphors are uninspiring or too hard to understand, and providing insights, truths, knowledge, and conceptual frames that otherwise would have been missed” (Rosenblatt, 1994, p. 18).

Failure to recognize the role of metaphor in scientific reasoning can be a trap for the unwary scientist. All metaphors obscure understanding when they become reified, communicate unintended or surplus meanings, or contain hidden biases and implications. This is not only because of the explicit use of metaphors but also because many metaphors are implicitly embedded in language and are part of the assumed or taken-for-granted meaning of language terms. Lakoff and Johnson (1980), in a frequently cited work, argued that everyday language is filled with metaphors containing cultural assumptions and theories about the way things are and how they work. Moreover, such metaphors serve to substantiate and reinforce the fundamental values of a culture within its basic concepts. Because they are both pervasive and often unrecognized as metaphors, they exert an unconscious constraint on the way individuals in a culture think about everyday phenomena. As an example, Lakoff and Johnson illustrated how the concept of “verbal argument” is metaphorically structured in terms of the metaphor of “war,” such that we not only talk about argument in terms of battle (e.g., “defending,” “attacking,” and “shooting down” positions) but also think about and experience argument as such. The embedded nature of metaphor in these everyday concepts prevents thinking in terms of alternative plausible conceptions of argument (Lakoff & Johnson, 1980, pp. 4–5). Like explicit metaphors and similes, embedded metaphors alert us to some aspects of reality and blind us to others, but because they are embedded in language, we tend to be unaware of them. They are habits of thought, unexamined assumptions that are taken for granted. Because

scientific theorizing is accomplished through metaphor and analogy, it is important to appreciate the role of metaphor both as a source for useful ideas and as a source of pitfalls that surface from failure to notice subtle differences between the analogies and their referents. “The choice is rather between more or less fruitful metaphors, and between using metaphors or being their victims” (Brown, 1977, p. 90). Valsiner (1994) advocated that researchers reject two traditional stances regarding ordinary language devices such as metaphors. He rejected as implausible traditional positivistic stances that considered metaphor as rhetorical embroidery of facts and a barrier to scientific thinking, and he also rejected calls to reduce psychological theorizing to the “rich but fuzzy meaning systems” (p. 55) of ordinary language. Instead, the way forward is for scientists to be deliberate in their construction of new terminology so that it both makes use of and transcends the meaning of metaphor and ordinary language in scientific concepts.

We agree with this view, and in the next sections we will explore two kinds of metaphors — cultural metaphors that may guide how ordinary parents think about interactions and relationships with children, and scientific metaphors that have been constructed to understand nontraditional concepts such as bidirectional influence in parent-child relationships.

## Metaphors of Parent-Child Relations

### Western and Japanese Proverbs and Aphorisms concerning Parent-Child Relations

An implication of the Lakoff and Johnson (1980) hypothesis is that cultures with historical, religious, and philosophical origins different from those of the West may give rise to quite different metaphors and, therefore, different ideas about what parent-child relations and the parenting process are like. Cultural ideas about parent-child relations are encapsulated both in implicit linguistic metaphors and in explicit metaphors

communicated in popular aphorisms and proverbs that communicate what is generally [p. 424 ↓ ] considered “common sense” in a given culture (Goodwin & Wenzel, 1981; Taylor, 1962/ 1981). Proverbs provide insights into the practical and moral reasoning that constitutes the conventional wisdom of a culture and that may shape the way individuals think about everyday phenomena. Of interest is what these common-sense ideas convey about the nature of parent-child relations and to what extent they resemble the contemporary scientific knowledge about parent-child relations. To that end, we briefly examine some popular aphorisms and proverbs regarding children and parents in Western and Japanese cultures.

The everyday language of parenting in Western cultures is imbued with implicit metaphors that facilitate a one-way, parent-to-child direction in the perception of influence. For example, it is common to say that parents “teach,” “transmit,” “discipline,” “control,” “manage,” “mold,” “shape,” and “nurture” their children, whereas children “receive,” “learn” from, and “obey” their parents. In everyday talk, parents may be “responsive” to children or engage in “give and take,” but it goes against the grain of cultural understanding and perception that parents may learn from, obey, or be nurtured by their children.

For several years, we have been collecting proverbs and aphorisms from the recollections of undergraduates in a third-year parenting course, from our own mothers and those of colleagues, and from published books of proverbs and literary quotations. This exercise yielded a core list that included “blank slate,” “spare the rod and spoil the child,” “like mother, like daughter; like father, like son,” “children seen and not heard,” “chip off the old block,” “an apple does not fall far from the tree,” “as the twig is bent the tree will grow,” “child is father to the man,” and “honor your mother and your father.” Other variations include “my way or the highway,” “as long as you live in my house,” “you will be sorry when I’m dead,” and “impressionable as wet cement.” Our informal survey revealed that many aphorisms of European cultures were identical to the English ones and are suggestive of a common Judeo-Christian origin. However, there were also some unfamiliar aphorisms that carried similar messages. For example, a German mother mentioned (in translation) “the young generation sings in the same way as the old generation” and “the servants act the same way as the masters.” A Polish mother mentioned (in translation) a saying that was also fixed in the memory of one of the authors: “Your ass is not a glass” (i.e., it will not break).

From the standpoint of researchers versed in the literature on parent-child relations, these popular expressions collectively represent key ideas associated with a unilateral or unidirectional conception of socialization, namely that influence flows from parent to child and that the product of the socialization process is the inter-generational transmission of similarity. Not represented are ideas that are now mainstream in the scientific literature on parenting such as bidirectional causality, transaction, system, or the child as an agent. Also apparent in the proverbs and aphorisms is a relatively narrow concept of the parent-child relationship as an authority relationship. Concepts that the parent-child relationship is an attachment relationship, an egalitarian relationship, or an intimate or companionate relationship also are not evident in these aphorisms. Indeed, one recurring statement that one finds in the popular press, “The trouble with parents today is that they want to be friends with their children,” contests the appropriateness of thinking about the relationship as anything other than one involving hierarchical authority.

At a surface level, it could be said that contemporary science on parent-child relations contradicts conventional wisdom about the nature of parent-child relations and about prescriptions for parenting. However, it is possible to exaggerate this point. Although some conservative Christian groups within Western culture may regard proverbs such as “spare the rod” as literal cautions rather than metaphors (Greven, 1990; Larzelere, 1993), it is unknown to what extent persons in a culture agree with or are guided by familiar metaphors or proverbs in everyday life. Moreover, the aphorisms of a culture collectively often communicate contradictory messages about what is common sense (Billig, 1987).

Books of popular literary quotations contain many proverbs and aphorisms that are witty or arresting because they convey a countercultural [p. 425 ↓ ] message that the lived experiences of parents and children differ from conventional wisdom. For example, a quotation attributed to John Wilmot, Lord Rochester (1647–1680)—“Before I got married I had six theories about children. Now I have six children and no theories”—captures the difference between the naive ideas that non-parents first bring into the child-rearing process and the actual experience of parenting children of different temperaments or children who actively contribute to their own development and socialization. Many quotations also can be found that recognize children's agency in parent-child relations.

Consistent with recent research on children's skillful expressions of resistance and noncompliance to parental requests (Corsaro, 1997; Kuczynski & Kochanska, 1990), Mark Twain (1867/2002) made the following recommendation in his *Advice to Little Girls*: "If your mother tells you to do a thing, it is wrong to reply that you won't. It is better and more becoming to intimate that you will do as she bids you, and then afterward act quietly in the manner according to the dictates of your best judgment." Similarly, Harry S. Truman in a 1955 television interview suggested "I have found the best way to give advice to your children is to find out what they want and then to advise them to do it." Truman's aphorism alludes to both the role of children's agency and current child-centered models of parental responsiveness to their children. A quip quoted in *Look* magazine in March, 1957, and attributed to the Duke of Windsor suggests a historical difference between Europe and North America in the pace of recognition of children's agency in parental practices: "The thing that impresses me most about America is the way parents obey their children."

Also to be found are quotations that evoke the recent relational models of socialization. For example, Otto von Bismarck's (1815–1898) statement that "You can do anything with children if you only play with them" is similar to recent relational theories of self-regulation (Maccoby & Martin, 1983) that suggest that the foundation of children's receptivity to parental influence stems from habits of mutual reciprocity developed in the early history of their relationship. Lastly, Garcia Marquez (1989) wrote on companionate aspects of parent-child relationships that have received minimal attention in the scientific literature: "She discovered with great delight that one does not love one's children just because they are one's children but because of the friendship formed while raising them" (p. 207).

The child-rearing practices of Japanese parents have received much attention in recent developmental literature (Trommsdorff & Kornadt, [Chapter 14](#), this volume) because they embody a system of ideas about parent-child relations that reflects a more communal and interdependent relationship context than is apparent in Western practices. Sources of Japanese thoughts on parenting include Shintoism as the indigenous Japanese religion that worships all natural objects and phenomena, as well as Buddhist and Confucian influences from China.

Among the metaphors and everyday discourse that guide child rearing and parenting in Japan, the metaphor of rice farming, with its background in Shintoism, has particular cultural significance. According to Shinto myth, rice is one of the five primary grains that grew out of the dead body of a goddess. Historically, rice was the basic unit of economic exchange, a measure of wealth, and a symbol of political power. Given that background, rice growing as a way of life affected individuals, the family, and the community (Befu, 1971). one current metaphor, which depicts the parent as a farmer nurturing the valued rice plant, is *shitsuke*. In the context of rice farming, *shitsuke* refers to the practice of securely rooting rice seedlings into paddies from nursery beds. *Shitsuke* in the parenting context refers to parental teaching to young children of socially appropriate behavioral styles and daily personal conventions including manners, deportment, and interpersonal attitudes (Hara & Wagatsuma, 1974; Shibano, 1989).

The cultural significance of salt and its metaphorical connotation also have their foundation in indigenous Japanese spirituality that regards salt as a symbol of purity that drives out evil spirits from the objects of one's affection or respect (Joya, 1951). one example of a reference to salt in a child-rearing context is the expression of *teshio ni kakeru*. *Teshio* is salt served in a small dish to season food to the [p. 426 ↓] diner's taste, but with moderation, so that the true flavor of the ingredients can be fully appreciated or enhanced. Metaphorically, *teshio ni kakeru* means to affectionately and wholeheartedly raise children with great care over time. More generally, it also refers to carefully tending and guiding the development of agricultural products including tea leaves, Kobe beef, rice wine, and bonsai.

In the traditional Japanese mentality, accepting others as they are and letting oneself be influenced by other living things is a sign of one's spiritual maturity because self-definition is found in the behavior that unites one with others and the natural environment. Frequent metaphorical references to nature (the object of worship in Shintoism) in the form of plants and small animals allude to the truth of life that parents should accept themselves and their children for who they are because they both are only a part of nature and live in its mercy. This cultural attitude of passive acceptance of what fate has to offer is evident in a well-known haiku by Chiyojo (1703–1775) that describes a peasant girl who went to the well only to find the bucket entwined by a delicate and short-lived morning glory in full bloom. Rather than disturbing nature, she

disturbed the neighbor instead: “The morning-glory/Has captured my well-bucket/I will beg water” (in Buchanan, 1979).

In Japan, parental acceptance—both of themselves and of their children—comes from recognizing that what happens in child rearing, as in life, is much larger than what one can cause personally. An example of a metaphor promoting parental acceptance of themselves, “A hawk born into a black kite family,” suggests that even if an exceptionally bright child (like a hawk, a cultural symbol of wisdom and astuteness) is born to parents of ordinary ability, it doesn't change the reality that the parents themselves are ordinary. Thus, parents should simultaneously accept their own limitations and honor their child's exceptional nature. Other examples of metaphors encouraging parents to accept their children's nature include aphorisms such as “An ordinary gourd's runner never bears something as remarkable as an eggplant” and “A frog's son is a frog.”

The ideal of unconditional, mutual acceptance fostered by Buddhism is so strong in Japan that some popular aphorisms ask parents to create at least a little distance between themselves and their children in their relationships. Because strong bonds between parents and children are culturally ingrained in the belief of *en* or karmic destiny (Lebra, 1984), common aphorisms warn parents to avoid becoming too enmeshed with their children. Sayings such as “A parent's heart gets lost in children” and “Children grow up somehow even without parents” caution parents not to be overly concerned with their roles in children's lives. Another saying, “I only gave birth to your shape, not to the heart,” implies that parental influence on children is limited and that children should be free to develop their own personal characters.

Aphorisms that foster children's acceptance of parents are based on the Confucian ethical values of filial piety (DeVos, 1998). For example, “Imagine how sad you would be to find your parents gone when you finally desire to fulfill your filial piety to them” and “A child must be good and dutiful no matter what the parents are like” encourage children to play their part in parent-child relationships and to realize what they owe the order of society and, therefore, what they should repay in gratitude to parents.

Another important concept in Japanese ideas of parent-child relations is *amae*. Doi (1973) brought attention to this concept as a psychodynamic principle operating in

Japanese society. *Amae*, defined as “a need for passive love,” explains “a Japanese form of intimacy—one that is manifested in a distinctive pattern of social interaction and which in turn is believed to be a retention of a mode of interaction between parent and child” (Kumagai, 1981, p. 249; see also Johnson, 1993). “This pattern [of *amae*] is comprised of two complementary postures that prescribe, respectively, an individual to *indulge* himself in love (*amaeru*) or to *defer* in love (*amayakasu*)” (Kumagai, 1981, p. 249). In everyday language, parents frequently refer to the concept of *amae* by using the adjective *amai*, which means the sweetness due to lack of salt (see the previous discussion on *teshio ni kakeru*). Sweet indulgence is promoted through different forms of physical contact including co-sleeping, co-bathing, transporting young children on the back (*onbu* or [p. 427 ↓ ] papoose-style) (Lebra, 1976), and a mundane ritual of *mimikaki* (children having ear wax cleaned while lying on the mother's lap). *Mimikaki* is not only a sensual gratification but also a service symbolic of mutual trust and affection rather than a compulsory ordeal (Japan Culture Institute, 1975).

As was found in Western literature, Japanese literature also shows evidence of a countercultural strain of thought that recognizes the true experiences of parenting as bidirectional in nature. For example, classic humorous stories include a parent being punished by his adolescent son for breaking a curfew (*Rokushaku-boh*) and a young child asking his father to behave in public (*Hatsu-tenjin*). These stories are told in *Rakugo*, a traditional Japanese art of telling humorous stories ending in a punch line that inverts the usual hierarchical social status of two protagonists (Morioka & Sasaki, 1990). Another example concerns a common saying that is a pun created by playing with the original Chinese characters for a parenting term. The term *ikuji* (“infant and child care”) is written with two Chinese characters (“to nurture” = *iku* and “young children” = *ji*). The pun for *ikuji* replaces the character for “*ji*” with another that is pronounced the same but means the caregiver instead of the child. The pun that simultaneously means child rearing and self-nurturing (“*ikuji* is *ikuji*”) has been met with popular support among young Japanese parents. The dual usage of *ikuji* appears to represent the parental acknowledgment of a reality that children promote the maturity of their parents as well as the reverse.

In summary, the ordinary language and proverbs of a culture are rich in metaphors about what parent-child relations and the process of child rearing are like. Awareness of the different metaphors that underlie a culture's approach to parenting is useful



in sensitizing researchers to culturally specific aspects of their own ideas and invites alternative conceptualizations about the parenting process. The dominant metaphors guiding commonsense parenting in Japan are quite different from Western metaphors of child rearing. Western metaphors convey the idea that parent-child relations are hierarchical authority relationships in which influence is or should be unidirectional. In Japan, the concept of the parent as an influence in children's lives is guided by metaphors having to do with the cultivation of important resources, mutual responsibility, acceptance of a child's nature, and respect for elders as a foundation for society. The proverbs and aphorisms of Japan suggest that although parental influence is important, it is less deterministic and more embedded in an interdependent reciprocal relationship than is common sense in Western culture. Thus, although Japanese parents are devoted to the upbringing of their children, they realize that their influence is only a small part of a life system of influences. We also suggest that in both cultures there are less dominant metaphors and aphorisms that convey that the lived experiences of parents include ideas such as bidirectional influence and the agency of children.

## Scientific Metaphors for Parent-Child Interaction

Metaphors have been and continue to be important in scientific theories and models constructed for the purpose of understanding parent-child interactions and relationships. Early socialization research on parent-child relations was influenced by the commonsense cultural metaphors of parents as unidirectional determinants of children's development. The one-way arrow metaphor was instrumental, in the early development of the field, in focusing attention on the importance of parenting. However, research based on unidirectional metaphors proved to be limited in terms of fostering an understanding of process in parent-child relations. Theories associated with the one-way arrow tended to conceive of parents and children as static bundles of traits that behave in predictable, unchanging, and consistent ways and led to perceptions of parents and children in terms of agent-object, stimulus-response categories. A

speculation is that such traditional metaphors may have initially hindered the “discovery” of bidirectionality and the child as agent.

From a metaphorical standpoint, a major obstacle to reformulating models of parent-child relations faced by Western researchers is that there were no ready-made cultural metaphors for bilateral perspectives on parenting. It took a [p. 428 ↓] leap of imagination to break away from the traditional way of thinking about parenting and to consider parenting in the context of interactions in which both the parent and the child are active participants. It is interesting to note that the transition between traditional and newer models of parent-child relations was aided rhetorically by disparaging metaphors that drew attention to the limitations of the earlier models. Important critiques metaphorically depicted unidirectional models of socialization as “social molds” (Hartup, 1978) or as “fax transmissions” (Strauss, 1992), and the child's role in the socialization process as an “empty bucket” (Waksler, 1991) or “cultural dope” (Garfinkel, 1967).

The rich array of concepts and the new language emerging from recent interactionist and transactional perspectives in developmental psychology illustrate that researchers have intuitively understood the need to create new metaphors that transcend traditional ways of thinking about causality. Recent models of causality such as “bidirectionality,” “transaction,” “fit,” “system,” and “dialectics” (Kuczynski, [Chapter 1](#), this volume) can be understood as providing the linguistic means for talking about, understanding, and perceiving influences between parents and children that are not supported by existing cultural metaphors or natural language.

Attempts to understand bidirectional processes at the micro level of parent-child social interaction also have given rise to a second, larger set of metaphorically based models of interaction. Table 20.1 lists many of the key theoretical metaphors that have guided research about bidirectionality in parent-child interactions. For heuristic reasons, we grouped these metaphors into three categories labeled automatic processes, thoughtful processes, and mutual processes. Each metaphor has some unique contribution that aids the understanding of particular aspects of parenting processes. Each also obscures other meanings and processes. Our attempt to identify categories of metaphors is meant to be an efficient way of representing the principal ideas that are currently being used in the study of parent-child relations.

Automatic processes	
Reaction	Response to stimulus
Script	Predetermined behavior
Thoughtful processes	
Proaction	Strategic action
Reciprocity	This for this
Communal reciprocity	This for that
Adaptation	Adjusting to contexts
Negotiation	Conflict resolution
Mutual processes	
Co-construction	Mutually created meaning
Scaffolding	Guided meaning-making
Co-regulation	Mutually supported action
Relationship	Past and future in the present

## Metaphors of Automatic Processes

An important set of metaphors for parent-child relations conceives of parent-child interactions as governed by automatic and unconscious processes rather than processes that involve the active thought or strategic choice of parents and children. Examples include processes of mutual shaping and reactivity and processes in which social interactions are reeled off in predetermined, overlearned scripts.

*Reaction.* Many important early models of parent-child interactions were based on the metaphor of reaction. Thus, mother-infant interactions were examined in terms of chains of actions and reactions. Contingencies between parent and child behaviors were analyzed in terms of probabilities of a response following the stimulus of an interacting partner. Bell's control system model (Bell & Harper, 1977) and Patterson's coercive

process model (1982) have important elements of the mechanistic stimulus-response reaction metaphor. Patterson (1982; Patterson, Reid, & Dishion, 1992) has particularly emphasized the automatic, thoughtless nature of coercive processes and has argued forcefully against attempts to include cognitive processes in models of parent-child coercive interaction.

**[p. 429 ↓ ]** *Script*. The metaphor of script considers that automaticity in parent-child interactions is predetermined either because patterns of interaction have been overlearned or because they are embedded in unconsciously performed cultural practices and routines. When behavior is scripted, the interacting partners talk and act using patterns established in previous interactions. Abelson (1976) described a script as “a coherent sequence of events expected by the individual, involving him either as a participant or as an observer” (p. 33). over time, a person abstracts the essence of these interactions to arrive at what is expected in a similar interaction. Such overlearned scripts play out without awareness, so that there may be little correspondence between the actions and the simultaneous thoughts of the individual (Langer, 1978).

Many recurrent aspects of parent-child interaction can be understood as following long-established, predetermined scripts that are reeled off with minimal awareness. Interactions concerning mealtimes, going to and coming from school, and bedtime generally follow routinized patterns and do not have to be thought through anew each time these situations occur. Daily conflicts concerning daily chores and homework also may have a predictable pattern that provides the participants a “routine means for achieving coordinated interaction” (Duncan, 1991, p. 338). In addition, cultural patterns of interaction, including those involved in the transmission of gendered behavior, also may be performed without conscious consideration because they are embedded in a taken-for-granted way in cultural practices (Bugental & Goodnow, 1998).

These metaphors of automatic processes are useful because they alert researchers to predictable patterns in parent and child interchanges that may not engage effortful cognitive processes such as goal-directed planning or problem solving. However, the obvious limitation of the metaphors of automaticity is that they obscure aspects of interaction that are thoughtful, goal-directed, and adaptive. These metaphors also do not fit well with the implicit goals of behavioral parent-training interventions used to disrupt coercive processes. In classic behavior training models, many

aspects of intervention, such as teaching parents about coercive processes, how to label coercive behaviors, and how to track social interactions so as to respond with appropriate strategies, all are better understood as attempts to interject awareness and thoughtfulness into parental behavior so as to break the cycle of coercive automaticity in parents' interactions with children.

## Metaphors of Thoughtful Processes

Another set of metaphors highlights parental cognitive processes such as plans, problem solving, and forming and acting upon goals, interpretations, attributions, and relationship expectancies. Unlike the metaphors of auto-maticity, the metaphors of proaction, reciprocity, adaptation, and negotiation consider aspects of human agency—intentional strategic action and meaning making.

*Proaction.* The metaphor of proaction conceives of parents as engaging in future-oriented behavior in order to preempt or prevent problems before they occur (Holden, 1985). In one study, Holden (1983) identified mothers' planful use of logistical and anticipatory strategies to manage young children's behavior in the potentially stressful setting of a supermarket. Also included within the framework of proaction is goal-oriented behavior. Several general types of parenting goals have been identified in the recent literature, including socialization goals (Kuczynski, 1984), child-centered goals (Dix, 1992), and relationship goals (Hastings & Grusec, 1998). The proactive and future-directed aspects of parental behavior are especially important because they have received very little attention in comparison with the reactive features of parenting. Typical research designs that confronted a parent with a child's transgression or placed a parent in a play or teaching interaction that they had no role in structuring essentially gave parents no alternative but to react to their children's immediate behavior and offered little scope for parents to display intelligent problem-solving or proactive behavior (Holden, 1985).

*Reciprocity.* The metaphor of reciprocity has been used to study the nature of behavioral [p. 430 ↓ ] exchanges in parent-child interaction. Early research was guided by a metaphor of simple reciprocity that stressed the immediate payback with a behavior that was similar in value (see Ross, Cheyne, & Lollis, 1988, for a review

of different types of reciprocity). This form of reciprocity can be understood in terms of exchange theory (Nye, 1979), which assumes that interacting partners will attempt to rationally maximize rewards and minimize costs, a state of affairs that is achieved when exchanges are even and equitable. A limitation of this conception of reciprocity is that it does not distinguish between the different qualities that exchanges might take in long-term relationships, where reciprocity takes place over a longer period of time and actions are not necessarily repaid in kind. Subsequent relational models of reciprocity attempted to include the relationship context. Clarke and Mills's (1979) model of *communal reciprocity* implies that in close long-term relationships, benefits are experienced mutually and attempts to keep score or maintain short-term balances are experienced as inappropriate. Similarly, Norris and Tindale (1994) proposed a model of *global reciprocity* to describe loose patterns of exchanges between parents and children throughout the life span. In this perspective, instrumental or monetary assistance from the parent can be reciprocated in a satisfactory manner by emotional ties and affection from children. Similarly, caregiving received by young children from parents can be reciprocated later in life by the caregiving that aging parents receive from their adult children.

*Adaptation.* The metaphor of adaptation provides an alternative to conceptions of parenting in terms of consistent, unchanging traits or single modes of reactive or proactive interaction. The implication of the adaptation metaphor for parenting is that there is no one mode of operating. Instead, parents adapt their thoughts and behavior to the changing contexts of their children's development or behavior in specific situations. Parents' ability to adapt by responding appropriately to their children's cues during interaction is the hallmark of parental skill, represented by such constructs as maternal responsivity and sensitivity (Bornstein, 2002). Parents adapt their control strategies and expectations to the changing abilities of their children as they age. They also adapt their behavior to the temperament of their children and to the nature of children's misbehaviors (Grusec & Kuczynski, 1980). In addition, parents may switch between considered and automatic process of interaction depending on situational requirements (Kuczynski, 1984). Children also adapt their modes of self-regulation to specific contexts. For example, a given child may show patterns of internal control, external control, or relational negotiation depending on the requirements of a situation or the nature of the parent's demands (Kuczynski & Hildebrandt, 1997).

A limitation of the use of the adaptation metaphor is that only one meaning of adaptation has been explored in the parenting literature. Two kinds of adaptation have been identified in psychology: *assimilation* and *accommodation* in cognitive developmental theory, and similar concepts of *first-order change* and *second-order change* in family systems theory (Watzlawick, Weakland, & Fisch, 1974). Most of the research on adaptation in the parenting literature involves relatively conservative forms of adaptation corresponding to the processes of assimilation or first-order change that involve relatively small changes in understanding or in social interaction in response to minor changes in the environment. What have been less explored are more radical patterns of adaptation that correspond to accommodation or second-order family change that involve the transformation of a whole system of interaction or understanding in response to major changes in the environment. In many situations, successful adaptation may require parents to engage in drastic change. Parents' whole mode of relating to their children sometimes must change in response to major changes in circumstances such as their child's first police contact or discovery of a physical or developmental disability, or in response to major developmental transitions such as learning that a daughter has commenced sexual activity (Leigh & Loewen, 1987).

*Negotiation.* The concept of negotiation is used in situations where people disagree and attempt to resolve their differences by using social strategies such as asking for or providing explanations, bargaining, or compromising. In the [p. 431 ↓] peer interaction literature (Hartup, 1983), where the equal power of the participants is not disputed, interactions during conflicts have been described in terms of negotiation between equals rather than in terms of compliance to authority. Only recently have researchers used the metaphor of conflict negotiation to understand children's resistance to parental requests and commands (Kuczynski & Kochanska, 1990). The metaphor of negotiation has been a generative one because it simultaneously shed light on two poorly understood features of parent-child relations, the agency of the child and the nature of parental power. It leads researchers to explore the question, If parents are so powerful, why do they permit negotiation and other forms of resistance in their children? Possibly, parents may deliberately underplay their power during conflict. They may also recognize that compliance isn't everything and that conflict affords possibilities for perspective taking, for learning skills of conflict resolution, and for building a relationship based on mutually responsive interaction (Kuczynski & Kochanska, 1990). However,

although this metaphor shed light on neglected aspects of parent-child interaction where there is power sharing and negotiation, it is important to explore its limitations. Parents and children are not equal in power, and it is likely that the dynamics of conflict negotiation between parents and children will differ from the dynamics of conflict negotiation between peers.

The metaphors of thoughtful processes have collective limitations. Most models that include cognitive or thoughtful processes neglect aspects of parenting and parent-child relations that are not governed by rational processes (for an exception, see Kuczynski, 1984). The metaphors of thoughtful processes also tend to guide researchers to adaptive or positive forms of interaction. Grusec and Ungerer ([Chapter 11](#), this volume), for example, point out that some forms of interaction are maladaptive, as when parents fail to discriminate between situations, children's cues, or developmental changes. Luescher and Pillemer (1998) recently proposed the metaphor of *intergenerational ambivalence* for parent-child relations in later life as a tool for understanding how individuals experience and manage contradictory impulses and perceptions in their close relationships. It also could be said that the metaphors of thoughtful processes have not been sufficiently powerful to draw the attention of researchers to a balanced consideration of the contributions of children and parents to their social interactions. For example, we know more about the proactive, goal-oriented, and adaptive features of parental behavior than about similar features of children's behavior. A new generation of metaphors considered in the next section has been proposed to guide a more comprehensive perspective on bidirectionality in parent-child relations.

## Metaphors of Mutuality

A recent outpouring of newly coined language in the literature on parent-child relations indicates that scholars have been struggling with ways of representing and talking about processes for which there are no ordinary-language terms. Examples are “co-construction,” “co-action,” “scaffolding,” “co-evolution,” “co-regulation,” “collaboration,” “mutuality,” “intersubjectivity,” “interpenetration,” “shared meaning,” “shared affect,” “joint activity,” “attunement,” and “dialectical relationships.” All these new metaphors attempt to aid the conceptualization and perception of a more comprehensive form of bidirectionality in social interaction than was present in earlier models. Rather than



thinking of interaction as a series of discrete turns, exchanges, reactions, or strategies, the new metaphors of mutuality attempt to show how the thoughts and actions of one partner are intertwined with the thoughts and actions of the other. Actions of the parent and of the child may be mutually anticipated, interpreted, and adjusted to in a continuous fashion so that it is difficult to think of an individual behavior except in the abstract. The three metaphors that we have selected—*co-construction*, *co-regulation*, and *relationship*—are similar in that they all emphasize that the products of parent-child relations, whether they be meanings, behavior, or social relationships, cannot be understood as individual achievements but instead are meshed products of a continuously coordinated system of joint action and shared meaning.

*Co-Construction.* Researchers associated with sociocultural perspectives on parent-child [p. 432 ↓ ] relations have been deliberate in creating the metaphor of co-construction: “The relatively cumbersome term co-construction is a semiotic mediating device that canalizes psychologists' thinking to simultaneously consider the personal construction of one's psychological development and its social guidance” (Valsiner, Branco, & Dantas, 1997, p. 284). Co-construction emphasizes the personal construction of meaning within a context of the goal-directed conduct of other persons. Winegar (1988) used the term *co-construction* to refer to everyday social transactions in which meanings, activities, and operating procedures are negotiated and redefined so as to accommodate the different goals and interests of children and adults. Another meaning of the term refers more broadly to the process of socialization and cultural learning. Cultural messages are assumed to be actively communicated by parents and equally actively interpreted by their children into a novel understanding that is the product of their joint efforts (Valsiner et al., 1997).

An attempt to capture metaphorically the parent's side of the co-construction is *scaffolding* (Rogoff, 1990). Scaffolding implies a hierarchical exchange between parent and child in which the child is seen as the learner and the parent is seen as the expert tutor who guides the child's acquisition of concepts and skills. Scaffolding differs from one-way metaphors in that special emphasis is placed on the activity of the parent in conjunction with that of the child. Thus, instead of transmitting knowledge to the child, the parent supports the child's own construction of knowledge and guides the way to new constructions.

*Co-Regulation.* The metaphor of co-regulation is similar to co-construction except that it deals with the joint creation of conformity to parental regulation rather than with the joint creation of meaning. The parent's and child's behaviors are considered not independently but as mutually coordinated. Emphasis is placed on social processes involving mutual expectations, shared goals, and the joint regulation of behavior. Coregulation implies that individuals are seldom *self*-regulating. Instead, individuals are embedded in social systems where they are influenced by others while simultaneously influencing others. Maccoby and Martin (1983) suggested that although co-regulation in the parent-child dyad occurs even in infancy, the degree to which the child is capable of participating in a co-regulation system increases with age. The child's increasing capacity to function outside the parent-child dyad is due only partly to increases in self-regulation. Maccoby (1984) elaborated that between 6 and 12 years of age, there is a gradual transfer in responsibility between the parent and the child and a shift from a co-regulated system in which the parent assumes relatively immediate control over an aspect of children's lives to a co-regulated system in which parents adopt a more general supervisory role as children begin to exercise moment-to-moment self-regulation.

*Relationship.* Recently, efforts have been underway to actualize in research a complex model of relationship originally proposed by Hinde (1979). In this model, relationships are formed over time from an accumulation of moment-to-moment social interactions that integrate cognition and behavior. Bidirectional social interactions are represented symbolically in expectancies and working models of the relationship partner, and are carried forward to influence future social interactions, which are again represented symbolically in a reconstructed relationship. Social interactions therefore contribute to the formation of the relationship, and the relationship is a dynamically changing context that influences the dynamics of future interactions. One proposal to unpack what this means for parent-child interactions suggests that both symbolic expectancies based on the past of the relationship and symbolic anticipations of the future of the relationship are represented in each partner's responses to the other's behavior in interactions occurring in the present (Kuczynski, [Chapter 1](#), this volume; Lollis, [Chapter 4](#), this volume; Lollis & Kuczynski, 1997).

In summary, the metaphors of co-construction, co-regulation, and long-term relationship represent related conceptions of how joint processes can be carried out in the domains

of meaning, action, and social relationships. It is too early to assess the research directions that they will guide. Perhaps one common drawback [p. 433 ↓ ] to these metaphors is that they lead to an inherently positive and optimistic perspective on parent-child relations, viewing each partner as a willing participant in a system of bidirectional influence. In reality, the adaptiveness of any jointly created products depends on the goodwill and skill of both participants. Weingarten (1991) recently noted that one can demolish a co-construction if one partner refuses to participate in a meaning-making sequence, withdraws from meaning making, imposes meaning, provides meaning, or rejects meaning. Thus, it is important to be alert to phenomena and processes that may be obscured by metaphors of mutuality.

## Summary and Integration

Metaphors pervade both everyday thinking about parenting and the scientific models created in attempts to understand parent-child relations. To date, researchers have worked mostly within the confines of individual metaphors, to the exclusion of others. A challenge is that the complexity of parent-child relations that is at the focus of current research and theory is outstripping the possibilities of unidimensional metaphors. One strategy that may provide a sense of wholeness to the conceptualization of parent-child relations may be to combine pairs of theoretical metaphors, such as those of reactive processes and thoughtful processes. A current challenge is to integrate wider contexts for interaction such as culture, ecological systems, and relationship into the study of proximal processes of social interaction. Moreover, such contexts are increasingly considered as dynamically responsive not only to historical, demographic, and social changes but also to the actions of individuals. The challenge to integrate the concept of human agency into models of parent-child relations is also a new effort for the field.

The implications of these directions in theorizing are just beginning to be explored. In keeping with the theme of this chapter, we propose that progress is likely to be mediated by new metaphors. We therefore offer two visual metaphors—one for the domain of cognitive construction and one for the domain of social action—that may be useful for exploring what it means for parents and children to interact as agents in a dynamically changing context. The two metaphors—M. C. Escher's *Drawing Hands* and

Lewis Carroll's *Alice in Wonderland*—have long been recognized for the richness of thoughts that they generate.

## Hands Drawing: Co-Construction of Meaning and Relationships

Escher's lithograph *Drawing Hands* may be useful for exploring the implications of parent-child co-construction of meaning both in the socio-cultural domain and in the domain of personal relationships. *Drawing Hands* is a classic metaphor of agency, interdependence, and changing context. Parents and children, represented by two hands, interact not as independent individuals but as partners in an interdependent relationship. In this context, the activities of one have consequences for the activities of the other. The parent constructs, or makes sense, of the child and the child's communications, and the child simultaneously constructs, or makes sense of, the parent or the parent's communications. One can see, in the moment captured by the drawing, the impact of the past history of the mutual construction. There is also a projection of future possibilities because the relationship between a parent and a child is an ongoing project that will endure for many decades. Interpreting the metaphor further, one also can see that the relationship occurs in an ecological or cultural context, represented by the page, which constrains parent-child relationships and interactions. However, the cultural and ecological contexts are not deterministic because both hands are agents that can partially transcend the constraints of the page.

## Alice and Flamingo Croquet: Co-Regulation in Agent-Agent Interaction

A famous literary quotation from Lewis Carroll's (1865/1966) *Alice in Wonderland* and John Tenniel's accompanying drawing ([Figure 20.2](#)) is useful for mediating thinking about behavior control and co-regulation in a context of interdependent agents who are unequal in power. It concerns Alice's game of croquet, in [p. 434 ↓ ] which all the

inanimate objects in the game were replaced by live organisms—flamingos, hedgehogs, and soldiers—and in a social structure represented by the Red Queen.

*Figures 20.1 Agent-Agent Co-Construction of Meaning and Relationships*



SOURCE: M. C. Escher, *Drawing Hands*. Copyright © Cordon Art B. V.—Baarn—Holland. All rights reserved. Reprinted with permission.

*Figure 20.2 Agent-Agent Interaction: Co-Regulation of Behavior*



SOURCE: Reprinted from Sir John Tenniel's drawing in Carroll's "Alice's Adventures in Wonderland."

The chief difficulty Alice found at first was in managing her flamingo: she succeeded in getting its body tucked away, comfortably enough, under her arm, with its legs hanging down, but generally, just as she had got its neck nicely straightened out and was going to give the hedgehog a blow with its head it *would* twist itself round and look up in her face, with such a puzzled expression that she could not help bursting out laughing; and, when she had got its head down, and was going to begin again, it was very provoking to find that the hedgehog had unrolled itself, and was in the act of crawling away; besides all this, there was generally a ridge or a furrow in the way wherever she wanted to send the hedgehog to, and, as the doubled-up soldiers were always getting up and walking off to other parts of the ground, Alice

soon came to the conclusion that it was a very difficult game indeed.  
(Carroll, 1865/1966, pp. 111–112)

Bateson (1972) used this metaphor to illustrate the difficulty of applying traditional notions of unilateral causality when referring to interactions among biological organisms. The poor mechanical coupling of Alice to the flamingo made it difficult for her to “cause” the hedgehog to go through the wickets in any definite way. Alice's predicament, as well as that of the flamingo, is a metaphor for parenting in an agent-agent interaction. There is an asymmetry in power between Alice and the flamingo; however, the flamingo is not powerless. Its capacities and nature may be different from those of Alice, but it is, nevertheless, an agent with its own goals and ways of understanding. Alice has two options if she is to be at all effective as a causal agent: She could put the flamingo into a straitjacket and change the rules back to a unilateral game, or she could act in a way that takes the active nature of the flamingo into account. From the outset, the genotype and nature of the flamingo limit Alice's influence in both amount and kind, and it would be best if Alice accepted that fact. In her immediate interactions, Alice would have to adjust her behavior in a way that reacts to, anticipates, and coordinates with the moves and goals of her partner in the interaction. A limitation of the metaphor is that Alice and the flamingo are not involved in an intimate, long-term relationship. The kinds of strategies available to Alice therefore are of the generic sort that one would use with an unfamiliar person with whom there is no past history from which one could predict responses. However, as a long-term strategy, Alice might wish to build a relationship to earn the receptivity and [p. 435 ↓ ] cooperation of the flamingo. Lastly, the metaphor of Alice portrays a rich perspective of the dynamic context of interactions. Successful parenting requires flexible adaptation not only to the child but also to a constantly changing ecological context.

## Conclusion

It is important to understand the role of metaphors in the theory-construction process in the field of parent-child relations. Scientific theories, models, and the variables and measures that are derived from them have a basis in metaphor, and new models are preceded by the construction of new metaphors. Moreover, most models of parent-child interactions and relationships have not developed much beyond the metaphorical stage.

No current model in parent-child relations is stated in the form of formal propositions and laws that provide a definitive basis for hypothesis testing and falsification. Rather, most current models serve a heuristic purpose of representing and understanding phenomena and implying directions for further exploration. Although all metaphors are limited in that they obscure aspects of reality, this is not a problem if the metaphorical bases of scientific models are acknowledged for what they are and are used as a lens on reality rather than accepted as reality itself. Recognition of the metaphorical nature of scientific constructs helps to increase theoretical sensitivity of researchers to the strengths and limitations of a given model.

It is also important to explore the potential of metaphor in the dissemination of new knowledge on parent-child relations. New knowledge about dynamic parent-child relations is encapsulated in abstract concepts such as bidirectionality, dynamic systems, interdependence, relationships, and agency of the child that have no basis in the commonsense understanding of parenting processes found in cultural metaphors and ordinary language. It is a difficult idea to communicate to parents that they must influence their children within a system of influences that also includes the influence of their children on their own behavior as parents. If scientists are to have an impact on parent education and the way that ordinary parents think about their interactions with their children, the means to reconstruct common sense may be through the dissemination of new lay metaphors of parentchild relations.

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