EDITORIAL

Contextualism and developmental psychopathology

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The field of developmental psychopathology has grown rapidly over the past several decades and research conducted within this framework has made substantial contributions to our understanding of human adaptation and maladaptation (Cicchetti & Cohen, 1995a, 1995b; Cicchetti & Richters, 1997; Cicchetti & Toth, 1998a). Influenced by the theoretical expositions of several prominent developmentalists, including Jay Belsky (1984), Uri Bronfenbrenner (1979), Robert Emde (1994), Donald Ford and Richard Lerner (1992), Michael Lewis (1997), Patricia Minuchin (1985), Arnold Sameroff (1983; Sameroff & Emde, 1989), Alan Sroufe (Sroufe, Egeland, & Kreutzer, 1990), and Esther Thelen and Linda Smith (1994), theorists have called attention to the importance of viewing the development of psychopathology within a continuously unfolding, dynamic, and ever changing context (see, for example, Belsky, 1993; Cicchetti & Aber, 1986; Cicchetti & Lynch, 1993; Cicchetti & Toth, 1998b; Coie & Jacobs, 1993; Jensen & Hoagwood, 1997; Richters & Cicchetti, 1993; Susman, 1993). Moreover, we now know that social contexts exert effects not only on

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psychological processes but also on biological structures and processes (Boyce, Frank, Jensen, Kessler, Nelson, Steinberg, et al., 1998; Cicchetti & Tucker, 1994; Eisenberg, 1995; Nelson & Bloom, 1997).

Despite advances that have occurred, the full incorporation of a contextual focus into empirical research, even among developmental psychopathologists who are very sensitive to the importance of understanding contextual influences on children and families, has proven to be a challenging enterprise (Richters, 1997). In order to thoroughly investigate the development of psychopathology in context, researchers must be more precise in how they conceptualize, operationalize, and analyze context (see, for example, Boyce et al., 1998).

Conceptualization

At one level, psychopathologists have been cognizant of the importance of context in defining what constitutes abnormality. Clearly, no behavior or pattern of adaptation can be viewed as psychopathological except in particular contexts (Cicchetti & Schneider–Rosen, 1986; Luthar & McMahon, 1996; Richters & Cicchetti, 1993; Werner & Kaplan, 1963). Further, chronological age and developmental stage or level of biological and psychological organization are important defining features of context for clinicians and researchers interested in chronicling the ontogenesis of problem behaviors. For example,

the "normality" of alcohol use or sexual intercourse varies enormously for a 6-year-old and a 26-year-old.

Although there is a growing awareness that contextual factors play an important role in defining phenomena as "psychopathological" (Jensen & Hoagwood, 1997; Richters & Cicchetti, 1993), there are vast differences in how the contexts for human development are conceptualized. Bronfenbrenner's (1979) articulation of nested levels in the ecology of human development marked a great stride forward in conceptualizing contexts. The micro-, meso-, exo-, and macrosystems delimited by Bronfenbrenner clearly and powerfully alert the developmental psychopathologist to important and vastly different sources of contextual influence on child development. To date, researchers interested in context tend to examine contextual influences at one (or perhaps two) levels of analysis. So, for example, cognitive social learning theorists such as Walter Mischel examine how the immediate situational context influences the meaning and predictability of behavior. They search for patterns of specific behaviors in particular situations that are highly predictive of future adaptation or maladaptation. This focus on the diagnosticity of situations, as well as on behaviors, has yielded new insights into the etiologies of aggression and other problems with self-regulation (Mischel, Cantor, & Feldman, 1996). Likewise, organizational theorists have focused less on situational contexts per se and more on interpersonal contexts as influences on development (Sroufe & Fleeson, 1986).

Our goal in this Editorial is not to highlight differences in the contextual emphasis of different theories. We are aware that many cognitive and social learning theorists define the most important contexts as interpersonal, not situational. Similarly, many organizational theorists look to particular behaviors (e.g., avoidance) in specific situations (e.g., mother–child reunion) to evaluate the adaptive/maladaptive quality of behavioral patterns. Our point is not to assign particular contextual foci to particular theoretical orientations, but rather to elucidate the fact that certain theoretical perspectives strongly direct attention to some contexts more than others.

Situational and interpersonal influences lie at the microsystem level in Bronfenbrenner's scheme and have been the traditional focus of psychological study. But it is at the meso-, exo-, and macrosystem levels that conceptualizing (and, as we illustrate subsequently, operationalizing) specific influences on development has proven to be more difficult, in part because it requires cross-fertilization with the disciplines that study "macro" phenomena: anthropology, sociology, demography, epidemiology, and economics. Parental workplace, school transitions, violent communities, persistent poverty, and unsupportive stress laden ecologies are all examples of contexts that exert influences on the development of psychopathology in children (Brooks-Gunn, Duncan, & Aber, 1997; Cicchetti & Toth, 1998b; Eccles, Lord, & Roeser, 1996; McLoyd, 1998; Richters & Cicchetti, 1993; Richters & Martinez, 1993). Consequently, community-, institutional-, and societal-level influences on individual development are now beginning to be examined in systematic, rigorous, empirical fashion (see, e.g., in this issue, Lynch & Cicchetti, 1998; Roeser, Eccles, & Sameroff, 1998; Seidman et al., 1998).

Because the influence of situational and interpersonal contexts are more commonly studied than meso-, exo-, and macro-contexts, we were especially eager to invite contributions to this Special Issue that conceptualized and studied sources of variance at higher levels of context (e.g., classrooms/schools and neighborhoods/communities). Developmental psychopathology, while devotedly interdisciplinary (Cicchetti, 1993), has more often integrated theoretical perspectives of the micro- or submicrocontextual level. Consequently, for this issue in addition to researchers focusing on risk and psychopathology at the microsystem level (Belsky, Hsieh, & Crnic, 1998; Cicchetti, Rogosch, & Toth, 1998; O'Connor, Hetherington, & Reiss, 1998), we reached out to invite researchers from disciplines that traditionally focus on more macro levels of analysis such as epidemiology, anthropology, and sociology. Our hope is that this volume stimulates new work on the development of psychopathology in context by illustrating the myriad of ways context can be conceptualized Contextualism 139

fruitfully, and by encouraging researchers to examine the impact of more than one level of contextual influence contemporaneously.

Operationalization

New concepts about the multilevel nature of the contexts that contribute to the development of psychopathology will generate innovative empirical research only if developmental psychopathologists learn how to measure and sample contexts. Obviously, the choices of what to measure will be related to the tools available for the measurement of critical contextual factors. Although many of the papers in this Special Issue represent a significant advance not only in their conceptualization but also in their operationalization of contexts of development, they also point out how far the field of developmental psychopathology has to go in the area of measurement of context. Much more measurement work is needed if we are to measure macrolevel contexts with the same degree of precision and validity as micro-level contexts and developmental processes. Indeed, some researchers do not believe that macrocontexts can or should be measured in only a quantitative fashion (Korbin, Coulton, Chard, Platt-Houston, & Su, 1998; Sullivan, 1998). Both Sullivan and Korbin and colleagues would argue that complex systems of cultural meaning and practices, which are arguably among the most important contextual influences on development, are best studied via qualitative/ethnographic methods. Fortunately, in our view, a growing number of researchers are not viewing quantitative and qualitative methods as either/or options. Korbin et al. (1998) and Sullivan (1998) both illustrate the potential gains associated with an effective integration of methods to study the development of psychopathology in context.

Even if researchers effectively conceptualize and measure context in their investigations of psychopathology, they may not be able to study contextual influences effectively if they do not think about sampling contexts. One powerful example in this Special Issue illustrates the point. In the article by Korbin et al. (1998), the authors examine the effect of

community structural characteristics (such as impoverishment) on community rates of child maltreatment. Naturally enough for childhood-based researchers, they sampled the entire population of neighborhoods in Cleveland for their study. However, as the authors themselves note, because of the high levels of residential segregation and economic inequality in Cleveland, community impoverishment and social composition are highly "confounded" (see their Figure 2). To study "Cleveland's neighborhoods" these researchers did exactly the right thing; they sampled the entire population. However, if a researcher's intention were to examine the effects of community impoverishment independently of the effects of neighborhood racial composition, then a different and more purposive approach to sampling relevant contexts would be required. Although difficult, it is possible to draw a sample of communities that do not entail the same degree of confound of neighborhood poverty and race, but only if we reach beyond a single metropolitan area. The contributions in the Special Issue make it clear that in order to study contextual influences on the development of psychopathology, we still have more progress to make in sampling and measuring context, especially at the more macro levels.

Analysis

Finally, the studies assembled in this Special Issue reflect a beginning in conducting appropriate analyses of contextual influences. Although most of the studies employ individual development as the unit of analyses, a few use rates of psychopathology at a higher level of aggregation (e.g., community maltreatment rates in Korbin et al., 1998) as the unit of analysis. Several of the studies in this Special Issue not only combine individual level and contextual level variables to estimate the direct and indirect effects of context net of individual factors, but also take the next step to examine the moderating influence of context on relationships between individual-level variables. For example, Kellam, Ling, Merisco, Brown, and Ialongo (1998) clearly demonstrate that the predictive power of children's individual levels of aggression in first

grade varies by classroom levels of aggression.

Despite the promise embodied by the articles in this Special Issue, the contributions to the volume illustrate how far we have to go to attain a data analytic strategy that will realize the full potential of studying developmental psychopathology in context. Willett, Singer, and Martin (1998) lay out a set of analytic frameworks which, if employed, would not only improve our estimates of contextual effects in current studies but also, perhaps more importantly, would change how we conceptualize and operationalize studies of the effects of context on the development of psychopathology in future studies. For example, Aber, Jones, Brown, Chaudry, and Samples (1998) used two waves of data and repeated measures multivariate analyses of variance to estimate the effects of a classroom-based conflict resolution program on developmental processes known from prior research to place children at higher risk for future aggression and violence. When four waves of data become available, Aber and colleagues will be able to utilize the more powerful techniques described by Willett, Singer, and Martin (1998). In particular, the use of data analytic strategies such as hierarchical linear modeling (HLM) permit researchers who conceptualize and operationalize studies of multilevel phenomena to analyze them as such. By understanding the new forms questions can take and how contexts and developmental domains must be sampled and measured, HLM will help to enrich the theoretical and empirical imaginations of developmental psychopathologists.

Perhaps our main goal for this Special Issue was to make it less likely that in 20 years one of us would have to write, "the methods used to gather information on these (social context) variables probably underestimate the degree, frequency, and severity of these forces, and, hence, the impact they have on development." The papers in this Special Issue can serve as the infrastructure on which to build increasingly sophisticated and comprehensive models of the contextual influences that, in conjunction with psychological and biological factors, transact to chart the course of normal and atypical development.

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