## Informant Discrepancies in the Assessment of Childhood Psychopathology: A Critical Review, Theoretical Framework, and Recommendations for Further Study

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Discrepancies often exist among different informants' (e.g., parents, children, teachers) ratings of child psychopathology. Informant discrepancies have an impact on the assessment, classification, and treatment of childhood psychopathology. Empirical work has identified informant characteristics that may influence informant discrepancies. Limitations of previous work include inconsistent measurement of informant discrepancies and, perhaps most importantly, the absence of a theoretical framework to guide research. In this article, the authors present a theoretical framework (the Attribution Bias Context Model) to guide research and theory examining informant discrepancies in the clinic setting. Needed directions for future research and theory include theoretically driven attention to conceptualizing informant discrepancies across informant pairs (e.g., parent–teacher, mother–father, parent–child, teacher–child) as well as developing experimental approaches to decrease informant discrepancies in the clinic setting.

Keywords: agreement, attribution bias context, correspondence, discrepancies, distortion

In a meta-analysis of 119 studies, Achenbach, McConaughy, and Howell (1987) identified what has come to be one of the most robust findings in clinical child research: Different informants' (e.g., parents, children, teachers) ratings of social, emotional, or behavior problems in children are discrepant (e.g., rs often in .20s). This finding has been replicated by further studies that have examined differences and similarities among informants' ratings under varying monikers (e.g., level of agreement among informants' ratings, disagreement among informants' ratings, correspondence among informants' ratings, discordance among informants' ratings). Informant discrepancies have been found in virtually every method of clinical assessment that researchers and practitioners use to assess abnormal behavior in youths (e.g., rating scales, structured interviews; Achenbach et al., 1987; Grills & Ollendick, 2002). Moreover, discrepancies have been found in samples of informants encompassing diverse ethnic and cultural backgrounds (Hay et al., 1999; Jensen et al., 1999; Kaufman, Swan, & Wood, 1980; Krenke & Kollmar, 1998; Rohde et al., 1999; Rousseau & Drapeau, 1998; Verhulst, Althaus, & Berden, 1987) and in virtually any clinic sample in which discrepancies have been examined (Edelbrock, Costello, Dulcan, Conover, & Kala, 1986; Frank, Van Egeren, Fortier, & Chase, 2000; Frick, Silverthorn, & Evans, 1994; Hart, Lahey, Loeber, & Hanson, 1994; Kazdin, French, & Unis, 1983; Rapee, Barrett, Dadds, & Evans, 1994).

The importance in studying informant discrepancies is highlighted by three key factors. First, there is no single measure or method of assessing psychopathology in children that provides a definitive or "gold standard" to gauge which children are experiencing a given set of problems or disorders (e.g., Richters, 1992). The lack of such a standard stems, in part, from the need to incorporate information from multiple informants to assess psychopathology in youths and the reality that different informants, even when observing a child's behavior in similar contexts or situations, nevertheless have different motivations for providing ratings of children and have different thresholds or perceptions of what constitutes abnormal behavior in a given child (e.g., Richters,

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<sup>1</sup> In this article, we generally describe the literature on differences and similarities among informants' ratings using the term *informant discrepancies*; however, when reviewing the specific findings of previous literature, terms such as *discrepancies*, *agreement*, and *correspondence* are not used interchangeably, and instead they are used to specify studies in which researchers have examined the issue of either differences (discrepancies) or convergence (agreement, correspondence) among informants' ratings using different techniques (i.e., examining difference scores between informants' ratings, as opposed to correlations between informants' ratings).

1992).<sup>2</sup> Second, efforts to reduce informant discrepancies through such tactics as having clinicians confront informants with discrepancies between their ratings and the ratings of other informants (e.g., Nguyen et al., 1994)—apart from leading to, at best, only modest levels of agreement (rs ranging from .19 to .52)—may lead to informants being pressured to provide ratings that are concordant with those of other informants (Angold et al., 1987). As a result, openly confronting informants with the fact that the information they provided is discrepant with the information provided by other informants may lead to the creation of expectancies for informants to provide concordant information rather than correct information (Angold et al., 1987). Third, recent work suggests that informant discrepancies may relate to critical facets of parent, child, and family functioning. For instance, discrepancies between mother and child perceptions predict the development of child behavior problems and relate to the mother's use of negative parenting practices toward the child, maternal stress, and motherchild conflict (Chi & Hinshaw, 2002; De Los Reyes & Kazdin, 2005; Ferdinand, van der Ende, & Verhulst, 2004; Pelton & Forehand, 2001; Pelton, Steele, Chance, & Forehand, 2001).

Research has generally failed to explain informant discrepancies. Much of the current research on informant discrepancies has replicated the finding that informants' ratings are discrepant from one another (e.g., Choudhury, Pimentel, & Kendall, 2003; Grills & Ollendick, 2003; Mahone, Zabel, Levey, Verda, & Kinsman, 2002; Rousseau & Drapeau, 1998; Sessa, Avenevoli, Steinberg, & Morris, 2001). Usually no theoretically relevant rationale has been provided to explain these discrepancies, and as a result, no tests have been conducted to examine the processes involved. Consequently, we know very little about why informants' ratings of childhood psychopathology are often discrepant from one another or whether modifications can be made to existing methods of clinical assessment to perhaps decrease the discrepancies among informants' ratings.

In this article, we review the current state of knowledge of informant discrepancies on ratings of child psychopathology in clinical research. First, we examine the impact of informant discrepancies on the assessment, classification, and treatment of childhood psychopathology. Second, we review research on informant discrepancies and the informant characteristics purported to influence them. Third, we discuss inconsistencies in the measurement of informant discrepancies. Fourth, previous work examining informant discrepancies has been largely atheoretical. We propose a conceptual framework (the Attribution Bias Context [ABC] Model) to guide research and theory on informant discrepancies in the clinic setting. Finally, we discuss how the proposed framework can both inform and promote theoretically grounded research examining informant discrepancies and provide valuable insight to the assessment of child psychopathology in clinical practice.

## Informant Discrepancies and Their Impact

## Assessment and Classification of Child Psychopathology

Informant discrepancies may have a significant impact on the assessment, classification, and treatment of child psychopathology. Reliance on different informants leads to identifying different children in a given population as meeting criteria for disorder or

meeting criteria for comorbid disorder (Boyle et al., 1996; Cluett & Forness, 1998; MacLeod, McNamee, Boyle, Offord, & Friedrich, 1999; Offord et al., 1996; Rubio-Stipec, Fitzmaurice, Murphy, & Walker, 2003; Youngstrom, Findling, & Calabrese, 2003). For example, the prevalence rates of conduct and oppositional defiant disorders in community samples range from 1.6% to 10.2%, depending on whether parent or teacher ratings are relied on to classify disorder in the child or whether both are considered simultaneously (Offord et al., 1996). Prevalence of classification of disorder ranges widely in clinic samples as well. When relying on parent or teacher ratings, or combining information from both, prevalence of conduct disorder ranges from 9.7% to 23%, and emotional disorder (anxiety, depression) ranges from 10.3% to 36.2% (MacLeod et al., 1999). The prevalence of comorbid disorder also varies by informant. When parent, youth, or teacher ratings are relied on, or when some or all are combined, prevalence rates of comorbidity range from 5.4% to 74.1% (Youngstrom et

Relying on one particular informant rather than another, or even integrating information from multiple informants (i.e., symptom or disorder is present if either parent or child endorses it as present), can lead to different conclusions regarding the correlates or risk factors of disorder. For example, whether measures of children's depressive symptoms and cognitive processes are associated with a diagnosis of childhood depression is largely dependent on which informant (parent, child) is used to provide measures of both depressive symptoms and cognitive processes, as well as to determine whether the child is depressed (Kazdin, 1989b). In addition, parent-identified conduct disorder is related to the presence of parent depression and family dysfunction, and teacher-identified conduct disorder is related to the gender of the child and family income. Yet, these relations are mutually exclusive (i.e., characteristics are related to either parent- or teacher-identified conduct disorder but not both; Offord et al., 1996). In short, identifying cases to decide both the prevalence and the characteristics of children with disorder can very much depend on the informants who provide the information.

## Treatment of Childhood Psychopathology

Informant discrepancies can also hinder the treatment of psychopathology in children. For example, parents and children fail to agree on a single problem to target during treatment 63% of the time and fail to agree 36% of the time on a general category of

<sup>&</sup>lt;sup>2</sup> In reviewing the extant literature on informant discrepancies as they relate to classification of disorder, treatment, and informant characteristics, we find it critical to note that, given the lack of a "gold standard" by which to measure psychopathology in youths, current research on informant discrepancies cannot be used to draw inferences as to the validity of a particular informant's ratings of child psychopathology. Indeed, when discrepancies exist among informants' ratings, even investigations that show relations between informant discrepancies and a particular informant's characteristics (e.g., depression in parents, age of the child) cannot establish the validity or invalidity of an informant's ratings. This is because the lack of a standard by which to gauge the child's true level of dysfunction precludes establishing which informant is providing correct or incorrect information of the child's behavior.

problems (e.g., aggressive behavior; anxiety/depression) to target during treatment (Yeh & Weisz, 2001). Moreover, when considering therapists' perceptions along with those of parents and children, even greater levels of discrepancy are found. Over 76% of parent–child–therapist triads fail to agree on a single problem to target during treatment, and over 44% fail to agree on a general category of problems (Hawley & Weisz, 2003). Thus, these findings highlight the potential impact of informant discrepancies in the context of treatment planning. Clinicians are likely to encounter problems identifying targets for treatment, because discrepancies often exist between the targets identified by different informants.

Interestingly, theorists have identified other instances in which informant discrepancies may impact the treatment of childhood psychopathology. For instance, informant discrepancies may hinder the abilities of informants participating in treatment (e.g., parent, child, therapist) to work together on the goals of therapy (Yeh & Weisz, 2001). Relatedly, discrepancies among how parent, child, and therapist perceive the child's problems may lead to problems in therapists' abilities to build therapeutic alliances with parent and child, especially if parent and child perceive the therapist as being unwilling to collaborate in the selection of problems to target in treatment (Hawley & Weisz, 2003). Thus, discrepancies among parent, child, and therapist may make it difficult for them to cooperate and actively participate during the treatment process and influence treatment processes and outcomes.

# Informant Discrepancies and Their Correlates: Informant Characteristics

Moderators and correlates of informant discrepancies on ratings of childhood psychopathology have been studied extensively (see Achenbach et al., 1987; Duhig, Renk, Epstein, & Phares, 2000; Grills & Ollendick, 2002). This attention has been largely directed toward examining relations among either the characteristics of the informants providing ratings of the child or the characteristics of the child being rated and the discrepancies among informants' ratings. In reviewing the literature on moderators and correlates of informant discrepancies, we must convey that although this literature has identified instances in which informant discrepancies may be lesser or greater, depending on the characteristics of either the informants or the child being rated, informant discrepancies generally remain quite high.

## Child Characteristics

Investigations examining the relations among informant discrepancies and informant characteristics have given the most attention to examining how child characteristics—such as age, gender, ethnicity/race, social desirability, and problem type—are related to informant discrepancies.

Age. A meta-analysis found that the mean correlations of informants' ratings were greater for children 6–11 years of age than for adolescents 12–19 years of age; agreement between informants' ratings was greater for younger children than adolescents (Achenbach et al., 1987). The authors interpreted this finding as suggesting that younger children's behavior may be more observable by informants, or the behavior itself may simply be more

cross-situationally consistent. Perhaps the reason why younger children's behavior may be more observable by informants is because younger children are more constrained in the situations for which they exhibit behavior. For instance, young children, when compared with adolescents, may spend significantly more time with informants who are commonly asked to provide information of the child's behavior, such as parents and teachers, and less time engaging in activities that are less observable to these informants, such as spending time with peers outside of home or school.

Interestingly, several studies have not found age differences (Choudhury et al., 2003; Engel, Rodrigue, & Geffken, 1994; Jensen, Xenakis, Davis, & Degroot, 1988; Kolko & Kazdin, 1993; Verhulst et al., 1987) or found that agreement between informants is greater for older than younger children (e.g., Grills & Ollendick, 2003). Many of the discrepancies among the findings may be attributable to sample characteristics and how the research question was examined. For instance, in Achenbach et al.'s (1987) meta-analysis, they examined 269 samples in 119 studies and categorized child age dichotomously using children age 6-19 years. In contrast, many of the studies that have not found age effects have categorized and examined child age with comparatively smaller sample sizes (e.g., Choudhury et al., 2003: N = 45; Engel et al., 1994: N = 85), thus, dramatically reducing the statistical power to detect an age effect. In addition, studies not finding an age effect have often not categorized child age in the same manner as Achenbach et al. (1987), often performing median splits of child age (e.g., Choudhury et al., 2003) or creating younger and older child groupings with samples of children that often do not include children greater than 16 years of age (e.g., Engel et al., 1994: age range = 8-16 years; Kolko & Kazdin, 1993: age range = 6-13 years; Verhulst et al., 1987: age range = 8-11 years). Thus, inconsistent findings in studies examining the relation between child age and informant discrepancies may be due to the inconsistent methods used across investigations.

Gender. Empirical attention has also been given to examining the relation between child gender and informant discrepancies, but the results across investigations are inconclusive and generally null (Achenbach et al., 1987). As an exception, one investigation found greater parent—child agreement for girls than boys on a scale measuring the total amount of child behavior problems but not on more specific broadband scales of child problems (e.g., internalizing, externalizing; Kolko & Kazdin, 1993). A meta-analysis that focused specifically on interparental agreement found greater mother—father correspondence on ratings of child externalizing problems in studies that included only boys or only girls when compared with studies that included both boys and girls (Duhig et al., 2000). However, no other child gender relationships were found.

In addition, although some studies have found relations between child gender and informant discrepancies in clinic-, community-, and school-based populations (Angold et al., 1987; Grills & Ollendick, 2003; Ines & Sacco, 1992; Verhulst & van der Ende, 1992), studies examining the same or other populations have not found gender effects (Choudhury et al., 2003; Christensen, Margolin, & Sullaway, 1992; Engel et al., 1994; Verhulst et al., 1987). In sum, the mixed findings from these investigations suggest that in the aggregate, child gender may not be related to informant

discrepancies, but in specific populations, child gender effects may be present.

Ethnicity/race. Of the investigations examining the relations between informant characteristics and informant discrepancies, comparatively few have examined ethnicity/race. Most studies have found that agreement is lower, or discrepancies are greater, among informants' ratings of African American children compared with informants' ratings of European American children (Kaufman et al., 1980; Wachtel, Rodrigue, Geffken, Graham-Pole, & Turner, 1994; Walton, Johnson, & Algina, 1999; Youngstrom, Loeber, & Stouthamer-Loeber, 2000). However, a meta-analysis that focused specifically on mother-father agreement did not find a relation between informant agreement and ethnicity (Duhig et al., 2000). In addition, some recent work has not found ethnic differences in the degree of discrepancies among informants' ratings but in differences in the direction of discrepancies among informants' ratings: Whereas African American children rate themselves as more anxious than their mothers rate them, European American children rate themselves as less anxious than their mothers rate them (Wachtel et al., 1994; Walton et al., 1999). Of studies that have found a relation between ethnicity and informant discrepancies, authors have often found this relation to suggest that there are differences in how informants from different cultures perceive children's behavior as being more or less problematic. For instance, greater mother-child discrepancies in ratings of African American children compared with European American children, may suggest that there is less consensus among African American mothers and children as to whether a given behavior is problematic. However, the specific role of ethnicity relative to the many other variables with which informant discrepancies are related (e.g., child age, parent psychopathology, and parent stress) has not been identified.

Social desirability. Children's tendencies to rate their levels of psychopathology in a favorable light (i.e., social desirability) may partially account for discrepancies between their self-ratings and the ratings of other informants (e.g., Jensen, Traylor, Xenakis, & Davis, 1988; Rapee et al., 1994; Silverman & Rabian, 1995). However, this relation has seldom been examined empirically. When it has been examined empirically, mixed or conflicting results have been found. For instance, differences have been found between parents' and children's ratings of social avoidance, with a negative relation found between children's self-ratings of social avoidance and social desirability: The greater the children's ratings of social desirability, the lower their ratings of social avoidance (DiBartolo, Albano, Barlow, & Heimberg, 1998). These findings suggest that differences between parents' and children's ratings of social avoidance may be influenced by children's selfpresentational concerns or the tendency of children to deny that problems with social avoidance exist to present themselves in a favorable light to the assessing clinician. However, this is not a finding replicated in other research; one study found that the relation between social desirability and informant discrepancies on ratings of child anxiety is moderated by gender (Dadds, Perrin, & Yule, 1998), and another study found a relation between social desirability and greater parent-child agreement on ratings of other internalizing problems (e.g., depression; Grills & Ollendick, 2003). Thus, although previous work suggests a relation between informant discrepancies and children's levels of social desirability, the direction of the relationship (i.e., social desirability is positively or negatively related to agreement), and whether other child

characteristics have an interactive effect on this relation (e.g., gender of the child, problem type) requires further investigation.

Problem type. Informant discrepancies, as they relate to the type of child problem, have been studied in the aggregate (i.e., comparisons of internalizing [e.g., anxiety, depression] versus externalizing [e.g., aggression, hyperactivity, oppositional behavior] problems) in two meta-analyses: Greater levels of correspondence for informants' ratings of child externalizing problems are evident when compared with informants' ratings of child internalizing problems (Achenbach et al., 1987; Duhig et al., 2000). This finding is often interpreted as suggesting that informant agreement is better for problems that are more observable to informants (externalizing) when compared with problems that are less observable to informants (internalizing). However, here too findings have been inconsistent (Jensen et al., 1999; Kolko & Kazdin, 1993; Verhulst & van der Ende, 1992). The weight of the evidence from the two meta-analyses mentioned previously suggests that there is a relation between child problem type and informant discrepancies, with greater correspondence evident in informants' ratings of child externalizing problems compared with internalizing problems. Moreover, symptom-level examinations of informant agreement whether they be across internalizing and externalizing disorders (Herjanic & Reich, 1982) or within specific types of disorders (e.g., anxiety; Comer & Kendall, 2004)—have found that agreement is higher for ratings of observable symptoms when compared with ratings of unobservable symptoms.

Research attention has also been given to examining informant discrepancies with regard to specific internalizing problems, such as anxiety and depression. For instance, low-to-moderate levels of informant agreement have generally been found on informants' ratings of child anxiety (Choudhury et al., 2003; Comer & Kendall, 2004; Edelbrock et al., 1986; Engel et al., 1994; Foley et al., 2004; Frick et al., 1994; Grills & Ollendick, 2003; Herjanic & Reich, 1982; Krain & Kendall, 2000; Rapee et al., 1994; Verhulst et al., 1987; Wachtel et al., 1994; Weissman et al., 1987). In addition, although the findings of some of these studies have been moderated by child and family characteristics (e.g., child age, child ethnicity, child gender, children's social desirability, family conflict, maternal anxiety; Edelbrock et al., 1986; Grills & Ollendick, 2003; Rapee et al., 1994; Wachtel et al., 1994), nevertheless, levels of informant agreement generally remain in the low-to-moderate range.

With regard to informants' ratings of child depression, prior work has generally revealed low-to-moderate levels of informant agreement (Angold et al., 1987; Braaten et al., 2001; Edelbrock et al., 1986; Garber, Van Slyke, & Walker, 1998; Herjanic & Reich, 1982; Ines & Sacco, 1992; Ivens & Rehm, 1988; Kashani, Orvaschel, Burk, & Reid, 1985; Reich, Herjanic, Welner, & Gandhy, 1982; Verhulst et al., 1987; Weissman et al., 1987; Williams, McGee, Anderson, & Silva, 1989). However, some of these studies examined informant agreement on individual symptoms and found moderate-to-high levels of agreement on individual symptoms regarding suicidal ideation (e.g., Angold et al., 1987; Ivens & Rehm, 1988). Findings of some of these studies have been moderated by child and family characteristics (e.g., child age and gender, parental depression; Angold et al., 1987; Edelbrock et al., 1986; Weissman et al., 1987), although, again, informant agreement generally remains in the low-to-moderate range despite the influence of these informant characteristics on levels of agreement.

Research has also examined informant discrepancies with regard to specific externalizing problems, such as aggression, hyperactivity/inattention, and oppositional behavior. For instance, prior work has generally revealed low-to-moderate levels of informant agreement on ratings of child conduct problems or aggression (Edelbrock et al., 1986; Herjanic & Reich, 1982; Jensen et al., 1999; Kashani et al., 1985; Loeber, Green, Lahey, & Stouthamer-Loeber, 1989; MacLeod et al., 1999; Offord et al., 1996; Reich et al., 1982; Touliatos & Lindholm, 1981; Weissman et al., 1987; Williams et al., 1989). Some of these studies examined informant agreement with regard to individual symptoms as well and found moderate-to-high levels of agreement on some individual symptoms (e.g., police contacts, school suspensions, stealing; Herjanic & Reich, 1982; Kashani et al., 1985; Loeber et al., 1989). Findings of some of these studies have been moderated by child and family characteristics (e.g., child age and gender; Edelbrock et al., 1986; Weissman et al., 1987), although, again, informant agreement generally remains in the low-to-moderate range despite the influence of these informant characteristics on levels of agreement.

With regard to informants' ratings of childhood hyperactivity/ inattention, prior work has generally revealed low-to-moderate levels of informant agreement (Edelbrock et al., 1986; Grills & Ollendick, 2003; Jensen et al., 1999; Kashani et al., 1985; Loeber et al., 1989; MacLeod et al., 1999; Verhulst et al., 1987; Weissman et al., 1987; Williams et al., 1989). One of these studies examined informant agreement with regard to individual symptoms and found moderate-to-high levels of parent—teacher agreement on individual symptoms regarding schoolwork (Loeber et al., 1989). Occasionally, the findings have been moderated by child and family characteristics (e.g., child age, child gender, children's social desirability, family conflict; Edelbrock et al., 1986; Grills & Ollendick, 2003), although informant agreement generally remains in the low-to-moderate range despite the influence of these informant characteristics on levels of agreement.

With regard to informants' ratings of childhood oppositional behavior, prior work has generally revealed low-to-moderate levels of informant agreement (Edelbrock et al., 1986; Herjanic & Reich, 1982; Jensen et al., 1999; Kashani et al., 1985; Loeber et al., 1989; Offord et al., 1996; Williams et al., 1989). One of these studies examined informant agreement with regard to individual symptoms and found moderate-to-high levels of parent-teacher agreement on individual symptoms regarding school problems and arguments with teachers (Loeber et al., 1989). Findings have been moderated by child and family characteristics (e.g., child age; Edelbrock et al., 1986), although informant agreement generally remains in the low-to-moderate range despite the influence of these informant characteristics on levels of agreement.

Perceived distress. Lastly, one characteristic that has not been examined directly may have implications for informant discrepancies, namely, the child's perceived distress over his or her problems. When adolescents rate that they experience behavior and emotional problems, their self-ratings of perceived distress over these problems often do not correspond (Phares & Compas, 1990). Moreover, even when parents, teachers, and adolescents concur that a particular behavior or emotional problem exists, adolescents are significantly less likely than parents and teachers to want to change or reduce the problem (Phares & Danforth, 1994). One possible reason why informant discrepancies exist is because chil-

dren often do not find their behavior as necessarily problematic. Children may not acknowledge that problems exist when these problems do not distress them, or they may deny that problems exist if they believe that their problems do not require treatment. Thus, one underlying feature of discrepancies between parent, teacher, and child ratings of child psychopathology may be the discrepancy among these informants' perceptions of whether the child's problems are distressing or even abnormal at all. However, again, the relation between children's perceived distress and informant discrepancies has not been addressed empirically and, thus, warrants additional attention.

### Parent Characteristics

Investigations examining the associations between parent characteristics and informant discrepancies have often focused solely on maternal characteristics, because mothers are often the parents most consistently available to provide information of the child's behavior. Also, mothers often are in the unique position to observe children under a variety of different circumstances and for extensive periods of time, relative to other informants, such as fathers, teachers, and peers (e.g., Richters, 1992). Nevertheless, when available, we discuss prior work examining relations between father's characteristics and informant discrepancies.

Depression. Parental levels of psychopathology are related to informant discrepancies, particularly parent depression (e.g., depression-distortion hypothesis; Chi & Hinshaw, 2002; Richters, 1992). A positive relation has been found between maternal levels of depression, often measured through self-report, and discrepancies between mothers' ratings and the ratings of other informants, such as teachers' ratings of the child or children's ratings of themselves (Breslau, Davis, & Prabucki, 1987; Briggs-Gowan, Carter, & Schwab-Stone, 1996; Chi & Hinshaw, 2002; Youngstrom et al., 2000). This relation has been found on ratings of a number of behavioral and emotional problems in youths (e.g., various internalizing [anxiety, depression] and externalizing [hyperactivity, aggression] problems; Chi & Hinshaw, 2002; Chilcoat & Breslau, 1997; Najman et al., 2000; Renouf & Kovacs, 1994; Youngstrom et al., 2000). Moreover, the relation is consistent with the depression-distortion hypothesis, which suggests that depression promotes a negative bias in the manner in which mothers perceive their children's behavior and emotional problems (Richters, 1992). As an aside, Richters (1992) concluded that the studies he reviewed that had examined the depression-distortion hypothesis suffered from various methodological flaws. Thus, we cite Richters in this context solely to acknowledge prior work that has defined the construct of depression-distortion. The work reviewed later examining the depression-distortion hypothesis acknowledged and took into account the methodological flaws of prior work outlined by Richters.

Recent work has provided empirical support for the depression—distortion hypothesis (Boyle & Pickles, 1997a, 1997b; Chilcoat & Breslau, 1997; Fergusson, Lynskey, & Horwood, 1993; Najman et al., 2000), although there are exceptions (e.g., Conrad & Hammen, 1989; Weissman et al., 1987). For instance, a recent cross-sectional study estimated that between 1.7% and 16.0% of the variance in discrepancies between mothers' ratings and the ratings of children and teachers is associated with maternal depression

(Fergusson et al., 1993). However, there are inconsistencies across investigations. Several other studies that have used similar as well as contrasting designs (e.g., longitudinal, cross-sectional, experimental) have yielded mixed support for the depression—distortion hypothesis (Boyle & Pickles, 1997a, 1997b; Chilcoat & Breslau, 1997; Najman et al., 2000; Renouf & Kovacs, 1994; Youngstrom, Izard, & Ackerman, 1999). In general, inconsistencies can be found in the source of distortion (i.e., depression, anxiety) and whether findings are consistent across mothers' ratings of children, regardless of the child's gender or age.

Anxiety. Most research examining the relation between parental anxiety and informant discrepancies has focused solely on maternal anxiety, although some studies have focused on paternal anxiety as well (Engel et al., 1994; Krain & Kendall, 2000). Similar to maternal depression, most have found a positive relation between maternal anxiety and discrepancies between mothers' ratings of child psychopathology and teachers' ratings of the child and/or children's ratings of themselves, and this relation has been found on ratings of both internalizing and externalizing problems in youths (Briggs-Gowan et al., 1996; Engel et al., 1994; Frick et al., 1994; Najman et al., 2000). Although findings are often moderated by the age and gender of the child (Briggs-Gowan et al., 1996; Frick et al., 1994) or are nonsignificant once maternal depression is considered (Krain & Kendall, 2000), the one experiment that found that maternal depression accounted for discrepancies between maternal ratings of children's negative behaviors and emotions and the ratings of independent observers also found the same for maternal anxiety (Youngstrom et al., 1999). Thus, just as maternal depression, experimental evidence does suggest that maternal anxiety may bias mothers' ratings of child psychopathology and influence discrepancies among the ratings of mothers and other informants. Nevertheless, inconsistencies in work examining the relation between parental anxiety and informant discrepancies are evident, and resolution of these inconsistencies warrants additional attention.

Stress. Few studies have examined the relation between parental/family stress and informant discrepancies. For instance, two studies have found positive relations between parent-reported levels of child and family stress and informant discrepancies on ratings of child internalizing and externalizing problems (Jensen, Xenakis, et al., 1988; Kolko & Kazdin, 1993), and another found a positive relation between self-rated parental stress and informant discrepancies on ratings of child internalizing and externalizing problems (Youngstrom et al., 2000). Two of these studies examined the relation between parental/family stress and informant discrepancies when considering a variety of parental and child characteristics, such as parental psychopathology, child age, socioeconomic status (SES), and ethnicity (Kolko & Kazdin, 1993; Youngstrom et al., 2000). Thus, previous work has suggested a relation between parental/family stress and informant discrepancies. However, the specific role of stress in informant discrepancies, relative to other facets of parental psychopathology with experimental evidence in support of their relation to discrepancies (depression and anxiety; Youngstrom et al., 1999), has not been identified.

SES. The relation between SES and informant discrepancies has been inconsistent across studies. A meta-analysis of interparental agreement found a negative relation between SES and

mother-father agreement: Lower levels of mother-father agreement were found for low-SES parents when compared with middle-SES parents (Duhig et al., 2000). Yet, a number of investigations examining a variety of informant pairs (parent-child, parent-teacher, mother-father) have not found a relation between informant agreement and/or discrepancies and SES when other child and parent characteristics were considered (Chi & Hinshaw, 2002; Kolko & Kazdin, 1993; Renouf & Kovacs, 1994; Treutler & Epkins, 2003). Perhaps any relation between SES and informant discrepancies may largely be a function of the relation between SES and other characteristics that are related to informant discrepancies, such as parent psychopathology (Dohrenwend et al., 1992; Ritsher, Warner, Johnson, & Dohrenwend, 2001). Evidence for this notion comes from many of the previously cited studies that did not find a relation between SES and informant discrepancies when parent psychopathology was considered as well (Chi & Hinshaw, 2002; Kolko & Kazdin, 1993; Renouf & Kovacs, 1994; Treutler & Epkins, 2003). Thus, there is a strong possibility that the relation between SES and informant discrepancies may be largely spurious and most likely explained by other informant characteristics.

## Family Characteristics

Relatively little attention has been given to the relation between family characteristics and informant discrepancies (Jensen, Xenakis, et al., 1988; Kolko & Kazdin, 1993; Treutler & Epkins, 2003). For instance, the first study to address the relation between family characteristics and informant discrepancies found that discrepancies among parent, child, and teacher ratings of child internalizing and externalizing problems were related to such family characteristics as family status (i.e., divorced vs. intact families), sibling birth order, number of siblings in the family, and familiarity of the child to the rater (measured by Likert scale ratings of the amount of time father was absent from home and mother worked during the day; Jensen, Xenakis, et al., 1988). However, in this study the relations between the family characteristics listed above and informant discrepancies were not examined in consideration of (i.e., controlling for) other parent and child characteristics already suggested at the time to be related to informant discrepancies (e.g., child age, parent psychopathology). Interestingly, other investigations examining the relation between family characteristics and informant discrepancies did examine this relation while considering other parent and child characteristics (e.g., child age, gender, ethnicity/race, SES, parent psychopathology; Kolko & Kazdin, 1993; Treutler & Epkins, 2003). For example, low parental acceptance of the child is related to both greater parent-child and parent-teacher discrepancies on ratings of child externalizing problems but not internalizing problems (Kolko & Kazdin, 1993).

Recent work has examined the relation between qualitative (i.e., parental acceptance, intensity level of parent–child interactions) and quantitative (i.e., number of topics parent and child discuss, amount of time parents spend with child) aspects of parent–child relationships and mother–child, father–child, and father–mother discrepancies on ratings of child psychopathology (Treutler & Epkins, 2003). Although measures of parent–child relationships were administered to mothers, fathers, and children, relations between parent–child relationship variables and informant discrepancies were largely found on child-

administered measures only. For instance, the number of childreported topics discussed with the mother was negatively related to mother-child discrepancies on ratings of both child internalizing and externalizing problems, and the number of child-reported topics discussed with the father was negatively related to only father-child discrepancies on ratings of child internalizing problems. Child-rated parental acceptance was positively related to only father-child discrepancies on ratings of child internalizing and externalizing problems, and child-rated intensity of mother-child interactions was negatively related to mother-child discrepancies on ratings of child externalizing problems only. With regard to parent-rated parent-child relationship measures, only the number of father-reported topics discussed with the child was related to father-child discrepancies on ratings of child internalizing and externalizing problems. No parentrated relationship variables were related to father-mother discrepancies. Thus, although this study provides some evidence for the relation between family characteristics and informant discrepancies, results were mostly found on child-reported measures.

## General Comments

In sum, extensive attention has been given to examining informant characteristics as correlates of informant discrepancies. Lamentably, no clear pattern of relations exists between informant discrepancies and any of the informant characteristics reviewed above. Indeed, inconsistent or null findings exist for many of the child characteristics reviewed (e.g., child age, gender, problem type, social desirability). Moreover, relations between parent characteristics, such as psychopathology and stress, and informant discrepancies are often moderated by other informant characteristics (e.g., child age and gender), and relations between family characteristics and informant discrepancies are either inconsistent across informant ratings of family characteristics or do not take into account the relationship between informant discrepancies and child and parent characteristics.

The current state of the literature examining informant characteristics as correlates of informant discrepancies is marred by inconsistent findings, and as a result, does not provide adequate conclusions as to the magnitude of the relations between informant discrepancies and informant characteristics. Interestingly, recent work suggests that the inconsistencies of prior work may be exacerbated by, if not the result of, the inconsistent measurement of informant discrepancies across studies (De Los Reves & Kazdin, 2004). Investigators have often examined the discrepancies between informants' ratings by comparing how two (or more) informants rate the same child (e.g., Briggs-Gowan et al., 1996; Chi & Hinshaw, 2002; Pelton & Forehand, 2001; Youngstrom et al., 2000). The measures of informant discrepancies most often used have been the simple or raw difference between two informants' ratings, the difference between two informants' standardized (e.g., z-score) ratings, and the residual difference between two informants' ratings (i.e., one informant's rating is used to predict the other informant's rating, and the difference between the rating predicted by the predictor informant's rating and the predicted informant's actual rating is the measure of discrepancy; Briggs-Gowan et al., 1996; Chi & Hinshaw, 2002; Jensen, Traylor, et al., 1988; Jensen, Xenakis, et al., 1988; Kolko & Kazdin, 1993; Youngstrom et al., 2000). However, these measures of informant discrepancies are methodologically distinct and lead to different conclusions (De Los Reyes & Kazdin, 2004).<sup>3</sup>

In sum, measures of informant discrepancies currently used in research are not interchangeable and yield different conclusions. If such varied conclusions arise among investigations examining similar issues, then investigators may conclude that substantive inconsistencies in the literature exist, when these inconsistencies may simply be a product of the different methods used by investigators to measure informant discrepancies. Further research on the factors that account for and contribute to informant discrepancies should consider what the appropriate measure of discrepancies is. One measure may be better suited for a particular purpose than another (De Los Reyes & Kazdin, 2004).

Prior work examining informant discrepancies has been largely descriptive and atheoretical. Inconsistencies in prior work examining informant discrepancies in clinical child research may well be due to inconsistent measurement of informant discrepancies across studies. Most important, the inconsistent measurement of informant discrepancies in prior work is an indicator of the descriptive and atheoretical nature of prior work and speaks to the need for a theoretical framework to guide future research and theory on informant discrepancies in clinical child research.

### A Theoretical Framework: The ABC Model

Research in the area of discrepancies among informants' ratings generally has not gone far beyond basic descriptive findings of the phenomenon. We have known for decades that different informants' ratings are often discrepant from one another (e.g., Achenbach et al., 1987; Lapouse & Monk, 1958). Yet, we presently know very little about why different informants' ratings of childhood psychopathology are often discrepant from one another.

A coherent theoretical framework, present in many other areas of clinical child research and child development (e.g., social-information processing; Crick & Dodge, 1994), is noticeably absent in research that has examined informant discrepancies. Perhaps one reason why such a framework has not been formulated is because information of children's problems is collected in a variety of different contexts and for both clinic (e.g., planning treatment, gauging changes over the course of treatment) and nonclinic (e.g., gauging community prevalence rates of disorder) purposes. Indeed, the mechanisms by which informant discrepancies exist may differ, depending on the context in which information of the

<sup>&</sup>lt;sup>3</sup> Prior work has also examined informant characteristics and differences in multiple informant agreement with the kappa statistic (e.g., Choudhury et al., 2003; Grills & Ollendick, 2003). The mathematical properties of the kappa statistic also differ substantially from the measures of informant discrepancies reviewed above. For instance, kappa is a sample statistic and not an individual measure created for the discrepancies between each informant pair as are the raw, standardized, and residual difference scores. In addition, given that kappa is a sample statistic, examining informant agreement and informant characteristics is done dichotomously (e.g., comparing the kappa statistic for subsamples of younger vs. older children, depressed parents vs. nondepressed parents) and, thus, may lead to differences in findings when compared with examinations of informant discrepancies and informant characteristics that use the raw, standardized, or residual difference scores, which are continuous measures of informant discrepancies.

child's problems is collected. For instance, when ratings are gathered from different informants in the clinic setting, informants may be aware of the purposes of such data collection (e.g., to inform treatment), and as a result, informants may be differentially influenced by these purposes. However, these contextual influences may not be present in instances in which ratings are gathered for the sake of the information itself (e.g., to gauge community prevalence rates). Although informant discrepancies exist in both clinic and nonclinic samples (e.g., mean rs = .46 and .40, respectively; Achenbach et al., 1987), it may be especially important that a theoretical framework to guide research and theory on informant discrepancies in the clinic setting be devised, given the potential impact of informant discrepancies on numerous areas of clinical child research (e.g., classification of disorder, treatment planning, and posttreatment assessments).

Unfortunately, the little attention that has been given to theorizing why informant discrepancies exist does not inform research and theory on why informant discrepancies exist in the clinic setting. For instance, informant discrepancies have largely been attributed to differences in the contexts or situations in which different informants observe the child's behavior (Achenbach et al., 1987) and, more recently, differences in the perspectives by which different informants observe the child's behavior (observer vs. self; Kraemer et al., 2003). Theoretical attention to informant discrepancies has also been given to how emotions and negative affect may play a role in how parents provide information of the child's behavior that is discrepant from other informants (Youngstrom et al., 1999).

The current state of conceptualizations for why informant discrepancies exist requires further attention to two key issues. First, prior work is silent on how the context in which information is collected plays a role in how or why informant discrepancies exist. Not considering context as a factor does not promote the development of approaches to assessing child psychopathology that attempt to manage informant discrepancies before information of the child is collected. Indeed, attributing informant discrepancies simply to differences in the contexts and/or perspectives by which informants perceive the child's behavior assumes that informant discrepancies are simply a reality of clinical assessment and are due to factors that cannot be controlled by the investigator or clinician gathering information from different informants. As a result, such conceptualizations limit the development of approaches to managing informant discrepancies to those that deal with integrating information from informants after the data are already collected (see Kraemer et al., 2003).

Second, conceptualizations that focus on emotions and/or negative affect as mechanisms by which informant discrepancies exist (see Youngstrom et al., 1999), in addition to their silence on the role of the context of assessment, focus on how such characteristics bias a particular informants' ratings (i.e., parents, specifically mothers) and, inherently, cannot explain discrepancies across all pairs of informants (e.g., parent–child, teacher–child, mother–father, teacher–parent). Moreover, given the literature reviewed previously that suggests that informant discrepancies may be influenced by a number of informant characteristics, conceptualizations of informant discrepancies that focus on one particular informant characteristic exclusive to one particular informant may be limited in their use in conceptualizing why informant discrepancies exist across informant pairs. Thus, prior work has not

developed theoretical frameworks to guide research and theory that take into account the context in which information is collected from informants and explain why discrepancies exist across different pairs of informants.

Interestingly, theories in the social and cognitive literatures may prove particularly beneficial in formulating a theoretical approach or framework to guide future research on informant discrepancies in clinical child research. Specifically, research and theory on the actor–observer phenomenon (e.g., Jones & Nisbett, 1972), the influence of people's perspective taking on memory recall (e.g., Baumeister & Newman, 1994; Conway & Pleydell-Pearce, 2000; Pasupathi, 2001; Tversky & Marsh, 2000), and source monitoring (e.g., Johnson, Hashtroudi, & Lindsay, 1993) provide rich literatures that may help to explain why different informants may perceive, and ultimately rate, children's behavior and emotional problems differently when such ratings are used for the purposes of the child's treatment.

We propose a theoretical framework to guide research and theory on informant discrepancies in clinical child research. The framework draws from research and theory on the actor-observer phenomenon, the influence of perspective taking on memory recall, and source monitoring. The framework's integration of sociocognitive research and theory allows for a conceptualization of why informant discrepancies exist that takes into account both the influence of a particularly important context in which information from different informants is collected (i.e., the clinic setting) as well as differences in how informant discrepancies operate amongst different pairs of informants. As a result, the framework may prove useful in developing approaches to dealing with informant discrepancies by manipulating or modifying existing methods of assessing childhood psychopathology with multiple informants. The framework is hereby referred to as the ABC Model.

## Background

Actor-observer phenomenon. The ABC Model draws on research and theory on the actor-observer phenomenon (Jones & Nisbett, 1972). The actor-observer phenomenon posits that observers of another's behavior attribute the causes of that person's behavior to his or her dispositional (i.e., inflexible) qualities and disregard or downplay the role of the context or environment in which the behavior occurs (e.g., parent attributing the child's actions to his or her tendencies to be physically aggressive with other children). In contrast, people attribute the causes of their own behavior to the context in which the behavior occurs and disregard or downplay the role of their own disposition (e.g., a male child attributing his behavior to his sister hitting him first and wanting to make his sister refrain from hitting him again by hitting her back). Within the context of informants' perceptions of child behavior, one can see a variety of reasons for the usefulness of the actorobserver phenomenon for informing theory on informant discrepancies in clinical child research. First, parents (i.e., observers of the child's behavior) are more likely than children to attribute the causes of their children's problem behaviors to the children's dispositions, whereas children are more likely than parents to attribute their problem behaviors to external causes (Compas, Adelman, Freundl, Nelson, & Taylor, 1982; Compas, Friedland-Bandes, Bastien, & Adelman, 1981). Second, observers of the

child's behavior (e.g., parents, teachers) are often the informants that initiate treatment or refer the child for treatment (e.g., Kazdin, 1989a). In addition, clinicians often rely on the information provided by observers of the child's behavior, rather than the child himself or herself, to assess and plan treatment for many of the problems for which children are referred and treated (e.g., Hawley & Weisz, 2003; Loeber, Green, & Lahey, 1990; Loeber, Green, Lahey, & Stouthamer-Loeber, 1991). As a result, the clinical assessment process often is disproportionately influenced by the perceptions of the informants observing the child's behavior, relative to the perceptions of the child. Because clinicians primarily rely on informants that perceive the child's behavior as reflecting the child's disposition, rather than the context in which the child's behavior occurs, the clinical assessment process may largely focus on the child's behavior as a problem within the child and largely ignore the context in which the behavior occurs.

Because the clinical assessment process depends primarily on the information provided by observers of the child's behavior, the context in which the child's behavior occurs is not taken into account prior to treatment nearly as much as the perception that the problem with the child's behavior lies within the child. Evidence of the clinical assessment process favoring a focus on dispositional aspects of the child's behavior may be found in an observation of the items used in clinical child research to measure childhood psychopathology. For example, items from such measures as the Child Behavior Checklist ask if a child argues a lot, is shy or timid, or gets into fights (Achenbach, 1991). However, the content of such items does not imply any context in which these behaviors or characteristics may occur. The obvious implications of this item format are that informants that focus on the disposition of the child when rating the child's behavior (parents, teachers) may be more likely to provide negative information of the child's behavior than informants that focus on the context in which the behavior occurs (children).4 This may especially be the case if observers of the child's behavior, relative to the child, are more willing to, or even better adept at, providing information of the child's problems when the items of measures are stripped of contextual information. Therefore, discrepancies among informants' ratings may result, in part, from the disparities among informants' attributions of the causes of the child's behavior and the clinical assessment process's differential weighting of information provided by observers of the child's behavior over information provided by the child.<sup>5</sup> Thus, because of the differential weighting between environmental and dispositional causes of the child's behavior exhibited by both observers of the child's behavior and children's observations of their own behavior, as well as the clinical assessment process, research and theory on the actor-observer phenomenon may provide a useful foundation to guide research and theory on informant discrepancies in clinical child research.<sup>6</sup>

Perspective and memory recall. The ABC Model is also informed by research and theory on the influence of people's perspective taking on memory recall (e.g., Baumeister & Newman, 1994; Conway & Pleydell-Pearce, 2000; Pasupathi, 2001; Tversky & Marsh, 2000). Specifically, evidence suggests that the perspective or stance people have when they recall events from memory determines their memory recall. For instance, people recall particular events from memory to support particular views and may disregard or ignore events that do not conform to their views (e.g., for a review, see Pasupathi, 2001; Ross, McFarland, & Fletcher, 1981; Santioso,

Kunda, & Fong, 1990; Tversky & Marsh, 2000). Thus, the perspective or stance people have when accessing information of events from memory may bias what events they recall and how they recall them.

Biased memory for negative events is influenced by whether the perspective or stance one takes when recalling the information is

<sup>5</sup> It can be argued that semistructured and structured diagnostic interviews take into account the situational/contextual facets of child behavior in assessing children's behavior and emotional problems. However, such interviews typically restrict taking context into account to instances regarding determinations of whether a child's problems meet diagnostic criteria for disorder. Indeed, similar to rating scales in general, on diagnostic interviews, initial or "rule-out" questions, in addition to questions with regard to symptoms of disorder, generally do not directly ask questions about context. Typically, contextual questions are asked with regard to whether the problems endorsed by the informant are either present or cause impairment in a given number of situations (American Psychiatric Association, 1994).

In addition, even in instances in which questions on diagnostic interviews regarding context are asked, it still cannot be assumed that informants are still accessing information from memory with regard to similar contexts. For instance, if the mother and father are asked on a diagnostic interview if the child's aggressive behavior is problematic at home, then the mother may access events from memory regarding the child's aggressive behavior with siblings to rate whether the child's behavior is problematic, whereas the father may rate whether the child's behavior is problematic by accessing events from memory regarding his observations of the child's aggressive behavior on the weekends when the child's siblings are typically not at home. Thus, even if interviews do take into account the context in which a child's behavior is exhibited, current diagnostic interviews cannot rule out the possibility that informants are accessing different events from memory or different aspects of the contextual facets of the child's behavior to rate whether a given problem exists or impairs functioning.

<sup>6</sup> In mentioning that the clinical assessment process favors a focus on dispositional aspects of the child's behavior, rather than the context in which the child's behavior is exhibited, we argue that this focus reflects a problem in the clinical assessment process itself. Indeed, the ABC Model we propose posits that informant discrepancies exist, in part, because different informants are discrepant in their attributions of the causes of the child's behavior, and these attributions influence the perspective or stance by which they access information of the child's behavior from memory. In addition, the ABC Model proposes that there are differences among informants in the extent to which their attributions and perspectives are discrepant from the goal of the clinical assessment process. Ultimately, we discuss how the ABC Model can be used to modify clinical assessment to accommodate discrepancies in the attributions and perspectives that informants have when providing information of the child's behavior and, thus, decrease discrepancies among informants' ratings.

<sup>&</sup>lt;sup>4</sup> The implication that observers of the child's behavior may be more likely to provide negative information of the child's problems in the context of clinical assessment, when compared with the information that children provide of themselves, does not imply that children simply deny that problems exist. The message to convey here is that the clinical assessment process places far greater focus on the child's behavior or disposition, relative to the context in which the behavior occurs. As such, observers of the child's behavior, when compared with children, are more likely to endorse problem behavior in children within the context of clinical assessment, because they are also more likely to attribute emotional and behavior problems in children to being indicative of a problem within the child, rather than a problem with the context or environment in which the child is exhibiting the behavior.

negative as well (e.g., perceiving a child as annoying when being asked to rate the child's problematic behavior; Tversky & Marsh, 2000). Because the clinical assessment process almost exclusively relies on the gathering of negative information of the child's behavior to inform treatment, the fact that taking a negatively skewed perspective leads to memory biases for negative events has critical implications for explaining why informant discrepancies in clinical child research exist.

Theorists have posited that the primary mechanism by which negatively skewed perspective taking may bias memory recall is through the creation of schematic or heuristic representations of events to guide recall of information (Tversky & Marsh, 2000). These representations may not only aid in the recall of perspective-relevant information but also contribute to the number of errors or misattributions people make. Similar to the implications that perspective taking may have for informant discrepancies, creating heuristic representations may have implications for informant discrepancies as well. Indeed, if heuristic representations promote memory biases consistent with the perspective an informant takes when recalling information of the child's behavior from memory, then these biases may further increase discrepancies among informants' ratings, particularly when the perspectives by which informants access information from memory are discrepant.

Prior work on the influence of people's perspective taking on memory recall can greatly inform research and theory on informant discrepancies in clinical child research. As mentioned previously, parents, and to lesser extent teachers, are often the primary sources of referral for, and initiators of, treatment for children's problems. Because an imbalance often exists in terms of which informants initiate the treatment process, it is likely that informants may enter the clinical assessment process with discrepant perspectives regarding whether the child's behaviors, let alone which of the child's behaviors, warrant treatment.

Perhaps when parents, teachers, and children are asked to provide information of the child's problems for the purposes of treatment, differences among their ratings may exist, in part, because of the different perspectives by which they access information of the child's behavior from memory and subsequently provide information of the child's negative behaviors during clinical assessment. For instance, if a parent is initiating treatment for his or her child's problems with aggression, then it is quite likely that the parent's perspective during the assessment process may be that the child should receive treatment for aggression. As a result, the parent's perspective that treatment is warranted may influence the parent to provide negative information of the child's aggressive behavior, consistent with his or her perspective. Thus, the parent's perspective by which he or she provides negative information of the child's aggressive behavior may influence him or her to access events from memory that support his or her perspective. However, the perspectives of other informants (child, teacher) may be fundamentally different from those of the parent. For example, the child's teacher may have the perspective that completely different problems than those identified by the parent warrant treatment (e.g., inattention) and may access negative information of these problems from memory, consistent with his or her perspective. Moreover, the child's perspective may be that any problems present are with the environment and not a function of his or her own behavior. As a result, the child's perspective may influence

him or her to provide as much information about the contextual factors (home environment) that contribute to any problems that the parent or other informants may identify or any problems measured during clinical assessment, consistent with his or her perspective.

Previous research is consistent with the notion that different informants may enter the clinical assessment process with differing perspectives by which they provide information of the child's problems. Even when parents, teachers, and adolescents concur that a particular behavior or emotional problem exists, adolescents are significantly less likely than parents and teachers to want to change or reduce the problem (Phares & Danforth, 1994). In this study, adolescents were more likely to want to reduce externalizing problems that their parents did not find troublesome when compared with other externalizing problems that parents wanted to change. Moreover, in assessing problems to target in treatment, children are more likely than parents to endorse problems in the family environment as warranting treatment, whereas parents are more likely than children to endorse child problems (externalizing and internalizing psychopathology) as warranting treatment (Hawley & Weisz, 2003). Overall, these results suggest the possibility that in the context of clinical assessment, informants may have different perspectives with regard to whether or which of the child's problems warrant treatment and, as such, may access, and subsequently provide information based on, different events from memory, consistent with their perspectives.

Relatedly, the goal of the clinical assessment process itself may be discrepant with the perspectives of informants providing information of the child's problems. Because the purpose of the clinical assessment process is to inform such aspects of intervention as the planning of the child's treatment for problematic behaviors, the goal of the process is to acquire as much information of the child's problematic behaviors as possible (as an aside, collecting information of the child's negative behavior is purported to be the primary goal of the clinical assessment process. At the same time, this goal of clinical assessment may exist in conjunction with other goals, such as collecting information of the child's negative behavior to gauge changes over the course of treatment. This point is further elaborated later in our discussion of the conceptual implications of the ABC Model). As a result, informants that enter the clinical assessment process with the perspective that the child's behavior warrants treatment may be further induced to access information of the child's problematic behavior from memory to align themselves with the goal of the clinical assessment process. Thus, if discrepancies in the perspectives by which different in-

<sup>&</sup>lt;sup>7</sup> In this study, although the authors found that therapists agreed more with children versus parents about problems in the family environment that were endorsed as warranting treatment, it is important to note that therapists also tended to agree more with parents about problems in the child that were endorsed as warranting treatment (e.g., internalizing and externalizing problems), which are the problems that treatment clinics focusing on children would be most likely to target in treatment. Moreover, the purpose in citing this study is to present work that is consistent with the notion that different informants enter the treatment planning process with discrepant perspectives through which they provide information of the child's behavior and not necessarily which problems the clinician decides as warranting treatment.

formants recall information of the child's behavior from memory contribute to the discrepancies in the ratings informants provide of the child's problems, then discrepancies among informants' perspectives and the goal of the clinical assessment process may further exacerbate discrepancies among informants' ratings of the child's problems.

Moreover, if heuristic representations are used to aid in the access of events from memory, and memory biases may result from the use of such representations to aid in recall of information from memory, then these biases may contribute to informant discrepancies on ratings of the child's problems as well. For instance, the heuristics parents use to aid in memory recall may also influence parents to rate more problematic behaviors of the child than other informants, further increasing discordance in the information different informants provide of the child. Interestingly, if heuristic representations are a possible source of memory bias, then such representations may greatly influence the assessment of child psychopathology in clinical child research. Indeed, recall of negative events has been assessed in prior sociocognitive work similar to how children's problems are assessed in clinical child research (i.e., rating scales administered to third-party observers of another's behavior; see Tversky & Marsh, 2000). Thus, because of both the different perspectives informants may have for providing information of the child's problems and the goal of the assessment process itself, as well as the different heuristic representations informants may use to aid in the recall of information of the child's problems from memory, research and theory on the influence of perspective taking on memory recall provide a useful foundation to guide research and theory on informant discrepancies in clinical child research.

Source monitoring. The ABC Model is also informed by research and theory on source monitoring, or the mechanisms by which people make attributions for how they acquire memories for events (e.g., Johnson et al., 1993). The source monitoring framework posits that decisions about where memories come from are primarily made in two ways. First, the source of memories can be identified heuristically by comparing potential sources of memories to schematic representations of where the source of similar memories usually originates. For instance, heuristic processes may involve a parent recalling that his or her son often fights with children at school, because his or her conception of the son's behavior on the drive to school is that he often fights with his sister there as well. Second, the source of memories can be identified systematically through the use of more complex or strategic processes, such as retrieving additional memories in support of or refuting an identified source, or searching for relations among memories. For example, systematic processes may involve a parent initially recalling that his or her son often refuses to do household chores because he did not take out the trash last week, but on further reflection, the parent may dismiss this recollection because it was the first time in a month that he had refused, and he has also been cleaning up the dinner table regularly for the past month and a half.

The important point to be made with the distinction between the two source monitoring decisions above is that they are not mutually exclusive. That is, source monitoring decisions based on both heuristic and systematic processes will lead to more reliable retrieval of memories for source than use of either alone (Johnson et al., 1993). Given that the use of both heuristic and systematic

processes leads to more reliable memory retrieval, research and theory on the source monitoring framework may have critical implications for research and theory on informant discrepancies in clinical child research. Indeed, as mentioned previously, research on the influence of perspective taking on memory recall suggests that the perspectives informants have may influence them to rely exclusively on schematic processes to retrieve recollections of events from memory (Tversky & Marsh, 2000). This exclusive reliance on schematic processes to guide memory retrieval may lead to increases in memory bias and, as a result, increases in the discrepancies in information that different informants provide of children's problems.

As mentioned previously, the clinical assessment process often relies on measures of child psychopathology that do not incorporate contextual cues. In doing so, the clinical assessment process may further induce informants to access information of the child's behavior from memory with solely heuristic or schematic processes of memory retrieval. Because many of the existing methods of measuring child psychopathology (e.g., questionnaires, rating scales; see Footnote 5) do not imply a given context in which the child's behavior was problematic, these measures may not cue informants to provide ratings of the child that are representative of specific instances in which the child's behavior was problematic. Instead, informants, particularly those that observe the child's behavior (parents, teachers), may be induced to provide ratings of the child that are solely global or heuristic in nature, which may be more prone to bias or distortion (see Tversky & Marsh, 2000) and, hence, inflate the magnitude of discrepancies among informants' ratings.

Perhaps the tendency of certain informants to use heuristic processes to guide memory retrieval can be complemented by modifying methods of clinical assessment to guide informants to use systematic processes as well. Such a modification may lead to reductions in informants' memory biases, resulting in reductions in informant discrepancies as well. For instance, when informants are asked to provide information of the child's problems more generally, they can be instructed to provide contextual information of the child's problems as well that may serve to either complement or qualify their perceptions of the child's problems (e.g., contexts in which the child breaks things, contexts in which the child does not break things, or contexts in which the child may actually exhibit prosocial behavior). In addition, perhaps informants can then be asked to provide a final evaluation of the child's problems after both general and contextual information of the child's problems are provided. This incorporation of heuristic and systematic processes to guide memory retrieval may serve to challenge informants' heuristic notions of the child's behavior, which may be more prone to bias or distortion than systematic processes. Moreover, cueing informants to incorporate both heuristic and systematic processes may combat discrepancies in the perspectives that informants may have when accessing information of the child's behavior from memory, because the use of both processes may lead to promoting parity in the mechanisms by which different informants access information of the child's behavior from memory. Therefore, because of the reliance that informants may place on heuristic or schematic processes to guide the retrieval of information of the child's behavior from memory, research and theory on source monitoring may greatly inform research and theory on informant discrepancies in clinical child research.

## Proposed Theory

Conceptual overview. The ABC Model (see Table 1), in addition to being informed by sociocognitive research and theory, is founded on the goal of clinical child assessment, namely, to gather information of the child's problems from multiple informants to inform such aspects of treatment as planning and the gauging of changes in functioning during treatment (e.g., Frick & Kamphaus, 2001; Mash & Terdal, 1988). Informants may enter the clinical assessment process with discrepant motivations for participating in treatment and, as a result, may engage in fundamentally different processes when providing information of the child's behavior. Specifically, different informants may have discrepant attributions of the causes of the child's behavior and, relatedly, may have discrepant perspectives with regard to whether the child's behavior warrants treatment or which of the child's problems warrant treatment. Discrepancies in informant attributions and perspectives are posited as two components that influence informant discrepancies on ratings of child psychopathology in the clinic setting.

Because the goal of clinical assessment is to gather information of the child's negative behaviors for such purposes as treatment planning and gauging changes in functioning during treatment, the attributions and perspectives of informants may also be discrepant from the goal of clinical assessment. These additional discrepancies among informants' attributions and perspectives and the goal of the clinical assessment process are posited to contribute to informant discrepancies on ratings of child psychopathology in the clinic setting. Lastly, the discrepancies among informants' attributions of the causes of the child's behaviors and their perspectives with regard to whether or which of the child's problems warrant treatment, as well as the discrepancies among informants' attributions and perspectives and the goal of clinical assessment, interact to produce discrepancies among informants' ratings of child psychopathology in the clinic setting.

Informants' attributions. The ABC Model proposes that informant discrepancies exist in the clinic setting, in part, because informants are discrepant in the attributions they have of the

Table 1
Conceptualization of the Attribution Bias Context Model

Component	Propositions
Informant attributions	Different informants have discrepant attributions of the causes of the child's problems.  Observer informants (parents, teachers) are more likely than the child to attribute the causes of the child's problems to the child's disposition and discount or disregard the context in which the behavior is exhibited.
	The child is more likely than observer informants to attribute the causes of his or her problems to the environment or the context in which the behavior is exhibited and discount or disregard his or her own disposition.
	The attributions of observers of the child's behavior are most discrepant from the attributions of the child.
	The attributions of informants that observe the child's behavior are most similar.
Informant perspectives	Because observer informants are more likely than the child to attribute the causes of the child's behavior to the child's disposition (i.e., problem with the child), the perspectives of observer informants are more likely than the child's perspective to be that the child's problems warrant treatment.
	Observer informants are more likely than the child to access information of the negative aspects of the child's behavior from memory, consistent with their perspective.
	Because the child is more likely than observer informants to attribute the causes of his or her behavior to the context in which the behavior is exhibited, the perspective of the child is more likely than observer informants' perspectives to be that the problem lies in the environment, not in himself/herself, and as a result, problems identified by other informants may not warrant treatment.
	The child is more likely than observer informants to access information of the contextual aspects o his or her behavior from memory, consistent with his or her perspective.
	The perspectives of observer informants are most discrepant from the perspective of the child. The perspectives of informants that observe the child's behavior are most similar.
Clinical assessment process	The goal of the clinical assessment process is to gather information of child's behavior and emotional problems.
	Informants' attributions and perspectives may also be discrepant from the goal of the clinical assessment process.
	Observer informants have attributions and perspectives that are most similar to the goal of clinical assessment.
	Attributions and perspectives of the child are most discrepant from the goal of the clinical assessment process.
Interaction between informants' perspectives and attributions and the goal of the clinical assessment process	There is a synergistic or interactive relationship between discrepancies among informants' attributions and perspectives and discrepancies among informants' attributions and perspectives and the goal of the clinical assessment process.
•	Discrepancies in both the attributions informants have of the causes of the child's behavior and the perspectives informants have of whether the child's problems warrant treatment interact with discrepancies between informants' attributions and perspectives and the goal of the clinical

assessment process to produce discrepancies among informants' ratings of child psychopathology.

causes of the child's problems (see Table 1). Specifically, observers of the child's behavior (parents, teachers) are posited to be more likely than the child to attribute the causes of the child's problems to the child's disposition, and they are less likely than the child to attribute the causes of the child's problems to the context or environment in which the problems are exhibited. An example of an observer informant attribution would be a teacher attributing the tendency of a child's fighting with his or her classmates to the child being aggressive. Conversely, children are posited to be more likely than observer informants to attribute the causes of their problems to the context or environment in which the problems are exhibited and less likely than observer informants to attribute the causes of their problems to their own disposition. An example of a child attribution would be a child attributing the tendency of his or her fighting with classmates to it being the only way that he or she can prevent him- or herself from being teased or picked on in class. Thus, the ABC Model predicts that the attributions of observer informants are most similar to each other and most discrepant from the attributions of the child.

Informants' perspectives. A second component proposed in the ABC Model to play a role in discrepancies among informants' ratings in the clinic setting is the perspective informants have with regard to whether or which of the child's behaviors warrant treatment (see Table 1). Specifically, because observer informants are more likely than the child to attribute the causes of the child's behavior to the child's disposition (i.e., the problem is with the child), the perspectives of observer informants are more likely than the child's perspective to be that the child's problems warrant treatment. In turn, observer informants are more likely than the child to access information of the negative aspects of the child's behavior from memory, consistent with their perspective. An example of an observer informant perspective would be a mother perceiving her child's low mood as a problem warranting treatment. Conversely, because the child is more likely than observer informants to attribute the causes of his or her behavior to the context in which the behavior occurs, the perspective of the child is more likely than observer informants' perspectives to be that the problem lies in the environment, and not in him- or herself, and thus does not warrant treatment. Therefore, the child is more likely than observer informants to access information of the contextual aspects of his or her behavior from memory, consistent with his or her perspective. An example of child perspective would be a child perceiving his or her low mood as being the result of being too busy at school and not having enough time to play with friends and that his or her low mood does not warrant treatment. Thus, the ABC Model predicts that the perspectives of observer informants are most similar to each other and most discrepant from the perspective of the child.

There are several different ways by which informants' perspectives may be discrepant from one another and may lead them to accessing different types of information from memory consistent with these discrepant perspectives. For instance, informants may have discrepant perspectives if they perceive different problems in the child as warranting treatment, with these discrepancies exacerbated in cases in which informants are observing the child's behavior in different contexts (e.g., parent observes child's problems with oppositional behavior in home, whereas teacher observes problems with inattention in school). As a result, informants

may be more likely to access memories of the child's behavior with regard to the problem they perceive as warranting treatment, consistent with their perspective.

Relatedly, informants may access memories of the child's behavior from similar contexts but interpret the child's behavior differently, depending on their perspectives with regard to whether the child's behavior warrants treatment (e.g., parent and child both remember child refusing to stop arguing with sister, with parent perceiving the child's behavior as oppositional and warranting treatment, whereas the child perceiving a need to get his or her sister to stop mocking him or her). Informants may also access discrepant information of the child's behavior from memory because one informant's perspective is that the child's behavior warrants treatment (e.g., parent seeking treatment for their child), whereas the other informant enters the clinical assessment process without any perspective for providing information of the child's behavior (e.g., the child is just going to the clinic because his or her parent says so and does not care what he or she tells the assessing clinician). Moreover, in the case of children, another common scenario may be a conscious form of perspective by which to access information of their own behavior from memory, namely, the perspective of presenting themselves in a favorable light to the assessing clinician or an open refusal of either participating in treatment or an assessment conducted for the purpose of treatment. Such a perspective may lead to children actively withholding information of their own behavior or emotional problems.

In sum, the ABC Model proposes that different informants enter the clinical assessment process with discrepant perspectives with regard to whether or which of the child's behaviors warrant treatment (or the possible absence of perspective, in the case of children). In turn, discrepancies among informants' perspectives may lead to discrepancies in the information of the child's behavior that informants will access from memory and ultimately use to rate the child's levels of behavior and emotional problems.

Goal of clinical assessment process. The third component of the ABC Model is the goal of the context in which information of the child's problems is collected: The clinical assessment process (see Table 1). In addition to the discrepancies that may exist in both informants' attributions of the causes of the child's behavior and the perspectives by which informants provide information of the child's behavior and emotional problems, the ABC Model posits that informant discrepancies in the clinic setting exist, in part, because informants' attributions and perspectives may be discrepant from the goal of the clinical assessment process. The goal of the clinical assessment process involves gathering information regarding the negative aspects of the child's behavior for such purposes as gauging whether treatment is warranted, informing the planning of the child's treatment, or serving some other aspect of treatment (e.g., gauging functioning at posttreatment, follow-up). However, because discrepancies in informants' attributions and perspectives may often entail discrepancies in whether informants want to provide information of the negative aspects of the child's behavior, informants' attributions and perspectives may also be discrepant from the goal of the clinical assessment process. Specifically, informants that attribute the causes of the child's behavior to the child's disposition, and have the perspective that the child's behavior warrants treatment (e.g., parents, teachers), may be more likely to provide negative information of the child's

behavior and, thus, may have attributions and perspectives that are most similar to the goal of the clinical assessment process. In contrast, informants (e.g., child) that attribute the cause of the child's behavior to the context in which the child's behavior is exhibited, and have the perspective that the child's problems lie with the environment and do not warrant treatment, may be less likely to provide negative information of the child's behavior and, thus, may have attributions and perspectives that are least similar to the goal of the clinical assessment process. As a result, when informants' attributions and perspectives are discrepant from each other, as well as discrepant from the goal of the clinical assessment process, discrepancies among the information informants provide of the child's problems may be exacerbated.

Interaction between informants' attributions and perspectives and the clinical assessment process. Lastly, the ABC Model posits that the three components of the framework interact to contribute to informant discrepancies on ratings of child psychopathology in the clinic setting (see Table 1 and Figure 1). The

framework posits a relationship between discrepancies among informants' attributions and perspectives and discrepancies among informants' attributions and perspectives and the goal of the clinical assessment process. Specifically, discrepancies among informants' attributions and perspectives, and the discrepancies among informants' attributions and perspectives and the goal of the clinical assessment process, interact to produce discrepancies among informants' ratings of the child's behavior and emotional problems in the clinic setting. Figure 1 depicts the conceptual framework underlying the ABC Model. The arrows connecting the three key constructs of the ABC Model (informant attributions and perspectives, goal of the clinical assessment process) highlight the interrelations among the components of the framework and the interactive effect they may have on informant discrepancies on ratings of child psychopathology.

Clinical research pertinent to the ABC Model. Several investigations in the clinical child literature are consistent with the proposed framework. First, as mentioned previously, parents (i.e.,

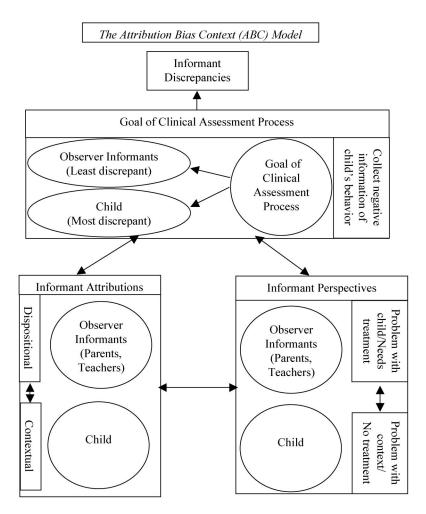


Figure 1. Conceptualization of the Attribution Bias Context Model, in which informant discrepancies in both their attributions of the causes of the child's behavior and their perspectives by which they provide information of the child's behavior interact with discrepancies among informants' attributions and perspectives and the goal of the clinical assessment process (providing negative information of the child's behavior for the purposes of treatment) to produce discrepancies among informants' ratings of child psychopathology.

observers of the child's behavior) are more likely than children to attribute the causes of their child's problem behaviors to the child's disposition, whereas children are more likely than parents to attribute their problem behavior to external causes (Compas et al., 1981, 1982). Second, prior work suggests that when parents, teachers, and adolescents agree that a given problem exists, adolescents are significantly less likely than teachers and parents to want to change or treat the problem, whereas teachers and parents do not differ in their perceptions of whether adolescents' problems should be treated (Phares & Danforth, 1994). Thus, prior work is consistent with the notions that (a) discrepancies exist among both informants' attributions of the causes of the child's behavior and informants' perspectives with regard to whether the child's problems warrant treatment, (b) observer informants have similar perspectives, and (c) the perspectives of observer informants are discrepant from children's perspectives.

Third, prior work suggests that different informants are discrepant in their perceptions of problems that should be targeted over the course of the child's treatment (Hawley & Weisz, 2003; Yeh & Weisz, 2001). For instance, 63% of parents and children fail to agree on a single problem to target during treatment (Yeh & Weisz, 2001). Additionally, parents are more likely to endorse problems with the child as warranting treatment (e.g., child externalizing [aggression] and internalizing [anxiety/depression] problems), whereas children are more likely to endorse problems with the family environment as warranting treatment (e.g., divorce, abuse, family relationships; Hawley & Weisz, 2003). Thus, prior work is consistent with the notion that different informants enter the clinical assessment process with discrepant perspectives with regard to which of the child's problems warrant treatment. In addition, the findings from the work reviewed above are consistent with research and theory on the actor-observer phenomenon (Jones & Nisbett, 1972). Indeed, similar to the actor-observer phenomenon, parents perceive problems in the child as warranting treatment (i.e., problem with the child's disposition), whereas children perceive contextual or environmental problems as warranting treatment (i.e., problem with the context in which the behavior is exhibited).

Fourth, recent work suggests that discrepancies may exist between the perspectives of informants and the goal of the clinical assessment process. For example, when parents', children's, and clinicians' perceptions are compared, over 76% of parent—child—clinician triads fail to agree on a single problem to target during treatment (Hawley & Weisz, 2003). In this study, clinicians tended to agree more with the problems that the parents endorsed as warranting treatment when compared with the problems that the children endorsed. These findings suggest that different informants' perspectives by which they provide information of the child's problems are discrepant from the goal of the clinical assessment process, and the goal of the clinical assessment process is less discrepant from the perspectives of observer informants when compared with the perspectives of the child.

Lastly, the ABC Model predicts that ratings of pairs of observer informants will show higher levels of agreement than ratings of pairs consisting of an observer informant and the child. For instance, a meta-analysis found that mother–father agreement was significantly higher than either parent–child or teacher–child agreement (Achenbach et al., 1987). Moreover, studies examining

the discrepancies among informants' ratings in samples of clinicreferred children, or children referred for school-based programs, have found that the ratings of parents and teachers evidence higher levels of agreement than comparisons of ratings between parents and children, and teachers and children (e.g., Lee, Elliot, & Barbour, 1994; Loeber et al., 1989, 1991). However, no statistical comparisons among pairs of informants were made in these studies. Additionally, a previous meta-analysis found that correlations between parent and teacher ratings were not statistically different from correlations between parent and child ratings or between teacher and child ratings, although they were in a direction consistent with the ABC Model (e.g., rs = .27 vs. .25 vs. .20, respectively; Achenbach et al., 1987; T. M. Achenbach, personal communication, March 9, 2004). However, this analysis was conducted in a sample of studies that combined both clinic and nonclinic samples. Thus, prior work examining differences in parent-teacher, parent-child, and teacher-child correspondence on ratings of child psychopathology, although consistent with the ABC Model, has not definitively provided evidence in support of the proposed framework. Additional work is needed in examining the statistical differences among mother-father, parent-teacher, parent-child, and teacher-child correspondence on ratings of child psychopathology in the context of clinical assessment for the purposes of treatment.

Overall, the literature reviewed here is consistent with the ABC Model. First, research examining the perceptions informants have of the child's problems, as well as their perceptions of the problems for which the child should receive treatment, suggests that informants are discrepant in their attributions of the causes of the child's behavior and enter the clinical assessment process with different perspectives by which they provide information of the child's problems. Second, research examining the discrepancies between the problems endorsed by parents, children, and clinicians as warranting treatment suggests that not only do discrepancies exist between the perspectives of informants and the goal of the clinical assessment process but the goal of the clinical assessment process may be less discrepant with the perspectives of observer informants when compared with the perspective of the child. Therefore, prior research suggests the conceptual utility of the ABC Model.

Relation to other conceptualizations. As noted previously, prior research and theory on informant discrepancies has largely attributed informant discrepancies to problems with the cross-situational consistency of the child's behavior (Achenbach et al., 1987). In particular, informant discrepancies have been attributed to the fact that different informants often interact with the child or observe the child's behavior in different contexts or situations. As such, informants are posited to provide discrepant ratings because they base their ratings on observations of the child's behavior in different situations. In addition, more recent conceptualizations of why informants' ratings are discrepant also take into account differences in the perspectives that informants have when rating the child's problem behavior (e.g., observer vs. self; Kraemer et al., 2003).

Context is important and no doubt influences the perspective by which informants observe the child's behavior. These different context-based observations contribute to informant discrepancies. However, we argue that attention must also be paid to both fundamental differences in how informants perceive and access information of the child's behavior from memory, as well as the context in which informants provide information of the child's behavior. The research from the social, cognitive, and clinical child literatures reviewed previously suggests that perhaps how informants access information of the child's behavior from memory and the context in which information is gathered (e.g., to assess child for purposes of treatment, to gauge changes in functioning during treatment) may also influence the discrepancies among informants' ratings of child psychopathology.

The context in which information of the child's behavior is gathered may be a particularly salient factor contributing to informant discrepancies in instances in which the information that informants provide of the child's behavior has a direct impact on their lives. In situations in which the child's problems are being assessed for the purposes of planning the child's treatment, different informants may enter the clinical assessment process with discrepant perspectives by which they provide information of the child's behavior, because the information being provided may have a direct impact on whether or which of the child's behaviors is perceived by the clinician as warranting treatment. This contextual influence of clinical assessment may contribute to informant discrepancies, beyond the influences accounted for by differences in the contexts in which the child's behavior is observed, or differences in the perspectives informants take when perceiving and/or rating the child's behavior. Thus, information from multiple informants is often used for purposes that directly have an impact on the informants providing information of the child's behavior (e.g., planning the child's treatment, gauging changes in functioning over the course of treatment). A strength of the ABC Model is that it takes into account the context in which information from multiple informants is gathered in its conceptualization of why informant discrepancies exist in the clinic setting.

The ABC Model does not dispute the importance of situational specificity and informant perspective when examining why informant discrepancies exist, and in fact, these constructs are incorporated into the framework. For instance, the research and theory on actor-observer bias and the influence of perspective taking on memory recall convey the importance of examining differences in the perspectives informants take when perceiving the child's behavior, as well as differences in the attributions informants make of the causes of the child's behavior. Moreover, one way that informant' perspectives can be discrepant may be in their perspective with regard to whether the child's behavior is more problematic in one context or another. For instance, a parent's and a teacher's perspectives may be discrepant not necessarily because one views the child's behavior as negative, whereas the other does not, but because the parent views the child's anxious behavior at home to be primarily problematic, whereas the teacher views the child's low mood at school to be primarily problematic. As such, the child's behavior may be problematic in both contexts, but the parent's and teacher's perspectives may still be, in part, discrepant because each perceives the problematic behaviors exhibited in the context in which he or she observes the child's behavior to be of primary importance to target in treatment.

Overall, informants' ratings may be discrepant because of differences in both informants' perspectives and the context in which different informants observe the child's behavior. However, prior work suggests that incorporating issues in informant perspectives and situational specificity within a larger conceptualization of discrepancies among both informants' attributions and perspectives, as well as discrepancies among informants' attributions and perspectives and the goal of clinical assessment, may be quite useful for guiding research and theory on informant discrepancies in the clinic setting.

## Implications of the ABC Model

### Conceptual Implications

The ABC Model has conceptual implications that may inform several avenues of research and theory. First, the framework can be used to interpret discrepancies across different informant pairs (e.g., parent-child, teacher-child, parent-teacher, mother-father). Although the clinical child literature reviewed previously that is consistent with the ABC Model most often examined discrepancies between parent and child ratings, this is not to say that the framework cannot be used to conceptualize discrepancies between other pairs of informants. Indeed, the ABC Model's incorporation of research and theory on both the actor-observer bias and the influence of perspective taking on memory recall allows for the interpretation of informant discrepancies across pairs of the informants relied on in the clinic setting, regardless of whether the informants are both observers of the child's behavior (e.g., mother-father, parent-teacher) or not (e.g., parent-child, teacher-child).

Table 2 provides descriptions of how the ABC Model can be used to interpret discrepancies across pairs of informants. For example, discrepancies between children's ratings and those of observers of the child's behavior (e.g., parents, teachers) can be expected because of differences between the attributions of observers of the child's behavior and the child's attributions of his or her own behavior (observers = dispositional; children = contextual) and, relatedly, differences in the perspectives informants have with regard to whether the child's behaviors warrant treatment. Moreover, discrepancies among parent—child and teacher—child pairs are exacerbated by the discrepancies between children's perspectives and attributions and the goal of the clinical assessment process.

Discrepancies between pairs of observer informants (parentteacher, mother-father) can be expected not so much because their attributions of the child's behavior differ but because each informant in the pair may recall information of the child's problems from memory that is consistent with their discrepant perspectives with regard to which of the child's problems warrant treatment. Moreover, differences between parents and teachers with regard to the contexts in which they observe the child's behavior exacerbate discrepancies between their ratings, whereas similarities between mothers and fathers with regard to the contexts in which they observe the child's behavior mitigate the discrepancies between their ratings. Lastly, discrepancies between the ratings of pairs of observer informants are not expected to be influenced by the goal of the clinical assessment process nearly as much as discrepancies between parent-child and teacher-child pairs, because as noted previously, the attributions and perspectives of observer informants are most similar to the goal of the clinical assessment

Table 2
Use of the Attribution Bias Context Model to Conceptualize Discrepancies Between Different Informant Pairs

Informant pair	Discrepant attributions?	Why discrepant perspectives?	Perspectives/attributions discrepant with goal of clinical assessment?	Level of discrepancies?
Parent-child	Yes: Parent = disposition Child = context/ environment	Discrepant perspectives with regard to whether child's behavior warrants treatment or     Absence of child perspective/indifferent perspective	Parent—no Child—yes	Highest/similar to teacher–child
Teacher-child	Yes: Teacher = disposition Child = context/ environment	Same as parent-child	Teacher—no Child—yes	Highest/similar to parent–child
Parent-teacher	No	Although both have similar attributions, perspectives may be discrepant because memory recall may be consistent with each informant perceiving different problems as warranting treatment; discrepancies in perspectives exacerbated by observations of child in different contexts	No	Lower than observer—child pairs
Mother-father	No	Same as parent-teacher, only that discrepancies in perspectives mitigated by observations of child in similar contexts	No	Lowest

process. Overall, differences across informant pairs with regard to discrepancies between both their attributions of the child's behavior, and their perspectives by which they provide information of the child, as well as the extent to which informants' attributions and perspectives are discrepant with the goal of the clinical assessment process, relegate the highest level discrepancies to parent–child and teacher–child pairs, lower discrepancies between parent–teacher pairs, and the lowest level of discrepancies to mother–father pairs.

Second, the ABC Model can be used to guide theory-driven research examining the relations between informant characteristics and informant discrepancies. Table 3 presents examples of how the ABC Model can be used to conceptualize relations between informant discrepancies and informant characteristics found in prior work. For instance, prior work reviewed above suggests inconsistencies in research examining the relation between child age and informant discrepancies. The ABC Model may be a useful tool for generating hypotheses for why informant discrepancies would be lesser or greater, depending on the age of the child. For example, informants' ratings of older children may be less discrepant than informants' ratings of younger children, because older children may be more likely than younger children to be aware of their own problems and perceive that treatment is warranted. As a result, older children may be more likely than younger children to have a perspective with regard to whether their behavior warrants treatment that is congruent with both other informants' perspectives and the goal of clinical assessment. Conversely, informants' ratings of younger children may be less discrepant than informants' ratings of older children, because they may be more likely than older children to conform to their parent's perspectives (e.g., mom brought me to treatment, so I should say what mom says is wrong with me).

In addition, the relation between informant discrepancies and child age may be moderated by problem type, in that younger children may be more likely to exhibit more overt (e.g., getting into fights, breaking things) than covert (e.g., truancy, stealing) externalizing behavior than older children, and as a result, their externalizing problems may be more likely to be observable to informants, lowering discrepancies among the perspectives of observer informants (i.e., problem viewed by informants is easy to observe, reducing the likelihood that discrepancies among informants' perspectives are due to discrepant perceptions regarding which problems should receive treatment). However, older children may be better than younger children at articulating, or less ambiguous in expressing, their internalizing problems, which may lower discrepancies among the perspectives by which informants provide information of the child's behavior from memory in much the same way as externalizing problems presumably would for younger children. Therefore, the ABC Model may be used to lay a conceptual foundation to guide future research examining the relations between informant characteristics and informant discrepancies and perhaps resolve inconsistencies across findings in prior

Third, the model can be used to conceptualize informant discrepancies at all periods of the clinical assessment process (e.g., pre- and posttreatment, follow-up). The ABC Model posits that informant discrepancies exist, in part, because different informants have divergent perspectives with regard to whether or which of the child's problems warrant treatment, and informant discrepancies are further exacerbated by differences in the extent to which different informants' perspectives are also discrepant from the goal of the clinical assessment process. Much of this article has illustrated how the ABC Model can be used to conceptualize informant discrepancies at the treatment planning stage of clinical assessment. However, the same processes posited to present themselves prior to treatment may exist in the context of clinical assessments conducted at any stage of treatment, regardless of whether the assessment of the child is taken during treatment planning, on

Table 3
Examples of the Use of the Attribution Bias Context Model to Conceptualize Relations Between Informant Discrepancies and Informant Characteristics

Informant characteristic	Relation(s) to discrepancies	Conceptualization(s) of relationship
Child age	<ol> <li>As age of child increases, informant discrepancies increase</li> <li>As age of child increases, informant discrepancies decrease</li> </ol>	In addition to the likelihood that problems may be more observable, depending on the age of the child, this relationship may depend on whether the perspectives by which either older or younger children provide information of their own problems are more congruent to observer informants' perspectives and the goal of the clinical assessment process, because of differences with regard to whether older or younger children perceive treatment as warranted. May be moderated by problem type.
Children's social desirability	<ol> <li>Discrepancies between the child's ratings and those of other informants increase as the child's self-presentational concerns increase</li> <li>Discrepancies between the child's ratings and those of other informants decrease as the child's self-presentational concerns increase</li> </ol>	The more the child's perspective by which they provide information of their own problems is congruent with the goal of the clinical assessment process, the lower the child's self-presentational concerns and the lower the discrepancies between the child's ratings and those of other informants.
Child problem type	Informant discrepancies are greater for ratings of child internalizing problems, when compared with ratings of child externalizing problems     Informant discrepancies are greater for ratings of child externalizing problems, when compared with ratings of child internalizing problems	In addition to the extent to which the problem is more readily observable to informants, this relationship may depend on the goal of the clinical assessment process. Specialty clinics that focus on treating internalizing problems may experience lower levels of discrepancies for ratings of internalizing problems, because the goal of clinical assessment is focused on collecting information for these problems. The reverse may be true for specialty clinics that focus on treating externalizing problems.
Perceived distress	As children's perceived distress over problem behavior decreases, discrepancies between their ratings and those of other informants increase	As children's perceived distress over problem behavior decreases, the less likely they are willing to change their problem behavior, and as a result, the less likely their perspective by which they provide information of their own behavior will be congruent with perspectives of observer informants and the goal of the clinical assessment process. As a result, discrepancies between children's ratings and those of other informants will increase.
Parental psychopathology (e.g., depression, anxiety)	As parental psychopathology increases, discrepancies between parent's ratings and those of other informants increase	Parental psychopathology promotes a parent's perspective for providing information of his or her child's problems that influences their recall of more negative information of the child's problems, relative to other informants. The mechanism by which this recall of more negative information exists may be in parental psychopathology influencing parents to use more heuristic than systematic processes to guide memory retrieval.
Parental stress	As parental stress increases, discrepancies between parent's ratings and those of other informants increase	Parental stress may decrease the threshold by which parents gauge whether a child's behavior is problematic. This lower threshold may lead to parents' perspectives being discrepant with both the goal of the clinical assessment process and the perspectives of other informants, because this lower threshold may influence parents to access information of the child's behavior from memory consistent with their perceiving nonproblematic behaviors as problematic. Parental stress subsequently influences parents to rate nonproblematic behavior in the child as warranting treatment. As a result, parents may provide more negative information of their child, relative to other informants.
Parental acceptance	<ol> <li>As parental acceptance of the child increases, informant discrepancies increase</li> <li>As parental acceptance of the child decreases, informant discrepancies increase</li> </ol>	Informant discrepancies may increase if parental acceptance increases the likelihood that parents are more tolerant of problematic behavior in children, relative to other informants, and as a result, their perspective for providing information of the child's negative behavior is discrepant from the perspectives of other observer informants that are less accepting of the child's negative behaviors. However, decreased parental acceptance may also be related to increases in informant discrepancies if low parental acceptance decreases parents' threshold for problematic behavior, relative to other informants. As a result, parents with low acceptance may be more likely to recall more negative information of their child's behavior from memory, relative to other informants.

Table 3 (continued)

Informant characteristic	Relation to discrepancies	Conceptualization(s) of relationship
No. of topics parent and child discuss Intensity of parent–child interactions	As the number of topics parent and child discuss increases, parent—child discrepancies decrease As the intensity of parent—child interactions increases, parent—child discrepancies decrease	Increases in either of these characteristics may increase the likelihood that parent and child perceive that treatment is warranted for problematic behavior. As a result, their perspectives for accessing information of the child's behavior from memory will be congruent with each other and with the goal of the clinical assessment process.

*Note.* Because inconsistent findings have been made in much of the literature that has examined informant discrepancies, multiple conceptualizations of the relations found between informant discrepancies and informant characteristics are presented for a few of the informant characteristics shown.

completion of treatment, or when the child's case has entered a follow-up period.

At posttreatment, the goal of the clinical assessment process may still be to collect information about the child's negative behaviors, only now such information is also collected with the goal of gauging changes in functioning over the course of the child's treatment. Depending on whether observer informants (parents, teachers) are satisfied with any changes observed in the child over the course of treatment, the perspective by which they provide information of the child's behavior will entail accessing information of the child's behavior from memory that is consistent with whether they perceive changes to have occurred or treatment to have been beneficial. Thus, in this scenario, perspectives of observer informants may very well differ from those of the clinical assessment process, depending on the extent to which their perceptions of whether treatment was beneficial differ from those of the clinical assessment process. Conversely, it may be likely that if children had a perspective by which they provided information of themselves prior to treatment that was discrepant from the perspectives of observer informants and the goal of the clinical assessment process (or did not have a perspective for providing information of themselves at all), then such a perspective (or lack thereof) may or may not persist into the treatment outcome stage of clinical assessment, depending on whether they perceived treatment to be beneficial or even enjoyable. Therefore, children's perspectives by which they provide information of their own behavior may change over the course of treatment as well and may very well converge with the posttreatment goal of clinical assessment, if they ultimately view treatment in a positive light.

Thus, although the processes by which different informants provide information of the child's behavior may differ, depending on when the assessment of the child is taken, the ABC Model's conceptualization of informant discrepancies is not limited to the informant discrepancies evident in assessments taken prior to treatment. At the same time, the constructs we propose to be critical in conceptualizing why informant discrepancies exist may operate in different ways, depending on the point over the course of treatment that an assessment of the child's functioning is taken, and we encourage future work to use the ABC Model to address these issues.

Lastly, a critical conceptual implication of the ABC Model is that the constructs purported to contribute to informant discrepancies on ratings of child psychopathology in the clinic setting can be measured and examined in relation to informant discrepancies. Table 4 lists recommendations for the measurement of informant attributions and perspectives and the discrepancies among them, the measurement of discrepancies between informant attributions and perspectives and the goal of the clinical assessment process, and how discrepancies among these three components can be combined to form a measure of discrepancies for a given informant pair.

First, informant attributions can be measured by asking each informant prior to clinical assessment why the child is exhibiting the behaviors for which he or she has been referred for treatment, as well as asking after clinical assessment why the child is exhibiting any other problematic behaviors that are unrelated to the referral behaviors. Second, informant perspectives can be measured in much the same way as informant attributions, only that informants are asked whether the problems identified warrant treatment. Third, discrepancies between informant attributions and perspectives and the goal of the clinical assessment process can be measured by gauging whether an informant's attributions and perspectives are discrepant from the assessment process' goal of collecting negative information for the purposes of treatment. Specifically, if the informant either primarily attributes the causes of the child's problem to the context in which the child's behavior is exhibited, or perceives that the identified problem does not warrant treatment, or both, then the informants' attributions and perspectives are discrepant with the goal of the clinical assessment process. Finally, discrepancies can be measured for a given informant pair by totaling the discrepancies among informants' attributions and perspectives and multiplying this score by the average discrepancy between the two informants' attributions and perspectives and the goal of the clinical assessment process. This last total discrepancy score is consistent with the interrelations among the constructs described in the ABC Model, as well as the interactive relationship between informants' discrepant attributions and perspectives, and the discrepancies between informants' attributions and perspectives and the goal of the clinical assessment process.

Overall, an additional strength of the ABC Model is that the constructs posited to be critical in interpreting informant discrepancies on ratings of child psychopathology in the clinic setting can be measured and examined in relation to informant discrepancies. Therefore, we recommend that future research attention be paid to the following: (a) the assessment of informants' attributions and perspectives; (b) the assessment of discrepancies among informants' attributions and perspectives and the goal of the clinical assessment process; and (c) the examination of the relations among informants' attributions and perspectives, the goal of the clinical

Table 4
Recommendations for the Measurement of the Components of the Attribution Bias Context Model

Component	Propositions
Informant attributions	<ol> <li>The extent to which an informant attributes the causes of the child's behavior to the child's disposition or the context in which the behavior occurs</li> <li>Attributions need to be measured both prior to clinical assessment (i.e., informant needs to be asked why the child is exhibiting the problems for which he or she has been referred for treatment) to gauge attributions for the causes of the referral problem, as well as after clinical assessment, to gauge attributions for the causes of problems that were identified during clinical assessment, that are unrelated to the referral problem</li> <li>Attributions of the causes of the child's problem can exist on a continuum, with one end being the attribution that the child is completely responsible for the problem (problem is with child; disposition) and the other end being the attribution that the environment or situational constraints are completely responsible for the problem (problem is with the environment or others, not the child)</li> </ol>
Informant perspective	<ol> <li>The extent to which informants either perceive the child's behavior as warranting treatment or which of the child's behaviors warrant treatment</li> <li>An informant's perspective influences what events they recall and how they recall them</li> <li>Perspectives need to be measured both prior to clinical assessment (i.e., informant needs to be asked whether the problems the child was referred for treatment warrant treatment) to gauge perspectives with regard to whether the referral problem warrants treatment, as well as after clinical assessment, to gauge perspectives with regard to whether other problems identified during clinical assessment that are unrelated to the referral problem warrant treatment</li> <li>Perspectives with regard to whether the child's problems warrant treatment are dichotomous (i.e., does the identified problem warrant treatment: yes/no?)</li> </ol>
Discrepancies between informants' attributions and perspectives and the goal of the clinical assessment process	<ol> <li>In the clinic setting, providing negative information of the child's behavior runs under the assumption that this information is used to decide what problems should receive treatment</li> <li>Discrepancies between informants' attributions and perspectives and the goal of the clinical assessment process exist on a dichotomous level (i.e., does the informant primarily attribute the cause of the child's problem to be the child's disposition, and does the child's problem warrant treatment: yes/no?). The informant's attributions and perspectives are discrepant with the goal of the clinical assessment process if either the informant's attribution is not primarily dispositional or the informant's perspective is not that the child's problems warrant treatment</li> <li>Discrepancies between informants' attributions and perspectives and the goal of the clinical assessment process can be measured both prior to clinical assessment, when measuring discrepancies with regard to the referral problem, as well as after clinical assessment, when measuring discrepancies with regard to problems measured during clinical assessment that are unrelated to the referral problem</li> <li>Discrepancies can be measured dichotomously (i.e., presence/absence of congruence of attributions and perspectives of informants with those of the clinical assessment process)</li> </ol>
Discrepancies can be measured for each informant pair	<ol> <li>Total scores of informants' attributions/perspectives can be created for each informant (total score for attributions/perspectives of referral problem, total score for attributions/perspectives of all problems), and standardized difference scores can be constructed to measure the discrepancies between informants' attributions, as well as the discrepancies between informants perspectives</li> <li>Total scores of discrepancies between informants' attributions and perspectives and the goal of the clinical assessment process can be created for each informant, and an average can be taken for the discrepancies between informants' attributions and perspectives and the goal of the clinical assessment process (average score for discrepancies with regard to other problems, average score for discrepancies with regard to all problems)</li> <li>Total discrepancy scores can be conceptualized as the interaction between discrepancies between informants' attributions and perspectives (discrepant attributions plus discrepant perspectives) and the average discrepancy between an informant pair's attributions and perspectives and those of the clinical assessment process (i.e., total discrepancy score = [Standardized Difference Score Between Informants' Attributions + Standardized Difference Score Between Informants' Perspectives] × Average Discrepancy Between Informants' Attributions and Perspectives and the Goal of the Clinical Assessment Process)</li> </ol>

assessment process, and informant discrepancies on ratings of child psychopathology used in the clinic setting.

## Research Implications

The ABC Model has implications for future investigations examining informant discrepancies in clinical child research. First, the model suggests that informant discrepancies are, in part, a function of the different attributions informants have of the causes of the child's behavior and the different perspectives that infor-

mants have when providing information of the child's emotional and behavior problems during the clinical assessment process. If the assessment process accommodated or accounted for the different attributions and perspectives informants may have, then discrepancies among informants' ratings may be reduced. For instance, informants could be encouraged to provide information of the child's behavior on the basis of similar or even identical contexts (e.g., in the case of parents and children) or asked to rate the child's problematic behavior on the basis of both situations in

which the child's behavior was problematic and situations in which the child's behavior was not necessarily problematic. Incorporating ratings based on contexts where problem behavior is and is not present may increase the likelihood that informants use both heuristic and systematic processes of memory retrieval, which, on the basis of the source monitoring framework, may lead to more reliable memory retrieval (Johnson et al., 1993). Relatedly, such an incorporation of ratings may create a context of clinical assessment in which informants are encouraged to think about both the dispositional and contextual aspects of the child's problem behavior. In turn, discrepancies among informants' attributions and perspectives may play less of a role in the discrepancies among informants' ratings, if informants can be encouraged to use similar processes by which to access information of the child's behavior from memory. By accommodating the different attributions and perspectives informants may have when providing information of the child's problems, the impact that discrepancies among informants' attributions and perspectives have on discrepant ratings may be neutralized, thus leading to reductions in the discrepancies among informants' ratings.

The role of informants' attributions and perspectives in informant discrepancies can be examined experimentally by creating conditions by which informants' attributions and perspectives can be manipulated to either decrease or increase the discrepancies among informants' ratings. For instance, as noted previously, informant discrepancies can be decreased under conditions in which informants are led to engage in similar processes by which to access information of the child's behavior from memory. Specifically, informants can be instructed to provide ratings of the child's behavior on the basis of their perceptions of the child's behavior in two sets of contexts: (a) situations in which the child's behavior is problematic and (b) situations in which the child's behavior is not problematic. Informants can be asked to specify which situations fell under the two sets of contexts, and on the basis of these two sets of contexts, informants can then be instructed to provide ratings of the child's problem behaviors. By instructing informants to provide ratings under these conditions, greater congruence may result among informants' processes by which they access information of the child's behavior from memory, and in turn, informant discrepancies may decrease. Indeed, even in instances in which informants observe the child's behavior in discrepant situations or contexts (e.g., parents and teachers), creating conditions by which different informants use similar processes by which to provide information of the child's problem behavior would presumably decrease discrepancies between their ratings. However, when informants observe the child in different contexts, the same magnitude of decreases may not be observed as those observed when the same techniques are used to reduce discrepancies among the ratings of informants observing the child in similar contexts (e.g., mothers and fathers).

Conversely, informant discrepancies can be increased experimentally under conditions in which different informants are led to engage in the discrepant processes by which the ABC Model posits they access information of the child's behavior from memory. For instance, observer informants (e.g., parents, teachers) can be cued to provide ratings of the child's problem behavior, with the understanding that children's behavior is quite stable across contexts, and problems they observe are likely severe enough to warrant

treatment (e.g., activation of attributions and perspectives when providing information of the child's behavior on the basis of a focus on the dispositional aspects of the child's behavior, and the perspective that the problems they observe should be treated). In contrast, children can be cued to provide ratings of their own behavior, with the understanding that their behavior can be quite inconsistent across contexts, often times their behavior is governed by situational constraints (e.g., siblings being mean to them, teachers blaming them for things they did not do), and these constraints are important in deciding whether treatment is warranted (e.g., activation of attributions and perspectives when providing information of the child's behavior on the basis of a focus on the contextual aspects of the child's behavior, and the perspective that the problems being observed are not caused by the child's disposition and, as such, do not require treatment). Thus, a strength of the ABC Model is that it can be used to develop approaches by which to experimentally manipulate constructs purported to influence informant discrepancies in the clinic setting and, thereby, manipulate the magnitude by which informants' ratings are discrepant from one another.

Second, the model suggests that if discrepancies in the attributions and perspectives that informants have influence the discrepancies among informants' ratings of child psychopathology, and such ratings are used to plan the child's treatment, then such discrepant attributions and perspectives may also have an impact on the treatments that children receive. For instance, if discrepancies among informants' attributions and perspectives are not dealt with prior to planning the child's treatment, then problems or behaviors targeted during treatment planning will correspond to some of the informants' attributions and perspectives but not others. If discrepancies among informants' attributions and perspectives filter into the treatment planning process, then it may become difficult for informants to collectively participate in treatment and work together on reducing the problems targeted during treatment.

Perhaps the relations among informants' discrepant attributions and perspectives, and their influence on discrepancies in the information of the child's behavior provided by different informants, can be examined in relation to the treatment plans that clinicians construct on the basis of this discrepant information. Moreover, objective measures of participation in treatment (e.g., dropout, completion of homework assignments, missed or cancelled sessions) can be taken, and the relations among informant discrepancies and participation in treatment can be examined. In other words, the ABC Model can be used to examine how informant discrepancies relate to participation in treatment and how this behavior may influence the outcomes of treatment. Therefore, the utility of the ABC Model extends beyond guiding future research and theory on the study of informant discrepancies as merely an assessment issue; the framework can also be used to guide research examining informant discrepancies as a construct that may relate to how children are treated for psychopathology and how the behavior of participants in treatment may influence whether treatment is beneficial to children.

Lastly, the model has implications for research and theory that address the limitations of, and aims to make refinements to, current diagnostic classification systems for childhood disorders (for example, *Diagnostic and Statistical Manual of Mental* 

Disorders [4th ed.; DSM-IV; American Psychiatric Association, 1994]). For instance, prior work suggests that combining information from multiple informants with schemes such as the "or" rule (i.e., criteria for disorder is met if any informant endorses disorder; Bird, Gould, & Staghezza, 1992; Piacentini, Cohen, & Cohen, 1992) may not be more incrementally reliable than considering informants' ratings independent from one another (e.g., Offord et al., 1996). Moreover, combining informants' ratings in an "or" rule can mask associated features of disorder found when informants' ratings are considered independently (e.g., Offord et al., 1996; Rubio-Stipec et al., 2003) and lead to inflated rates of prevalence, given that the method fails to correctly identify children who do not meet criteria for disorder (Piacentini et al., 1992; Youngstrom et al., 2003). As a result, theorists have advocated for the development of informant-specific classification systems (e.g., Offord et al., 1996).

The ABC Model highlights additional reasons why combining information from multiple informants may become problematic when researchers and clinicians diagnose disorders in children using current classification systems. For instance, the ABC Model posits that different informants access information of the child's behavior from memory in fundamentally different ways. However, researchers and clinicians often use the ratings of informants that observe children's behavior in different contexts or situations to determine whether a child's problems impair his or her functioning across situations or contexts. Indeed, under certain classification systems, whether a given problem causes impairment in a child's functioning across multiple situations or contexts is often a criterion used to determine whether a child meets criteria for disorder (e.g., DSM–IV; American Psychiatric Association, 1994).

Current classification systems that are silent on the traditional practice of integrating information from multiple informants with the intention of capitalizing on different informants' capacities to observe children's behavior under different contexts or circumstances may be limited in the extent to which they can be used to reliably classify disorder in children. This is because integrating information from multiple informants that observe the child's problems under different circumstances or contexts does not take into account a potential confound highlighted by the ABC Model, namely, the differences across informants in terms of the mechanisms by which they provide information of children's behavior. Thus, prior work suggests refinements in current classification systems because of instances in which integrating information from multiple informants may not be incrementally more beneficial than treating information from multiple informants independently. In addition, the ABC Model calls to attention how current classification systems may be limited in not addressing potential problems in the integration of information from multiple informants that engage in different processes of memory retrieval when providing information of the child's behavior. Indeed, it is probable that current classification systems may foster informant discrepancies by not addressing the reality that the mechanisms by which different informants provide information of youths' behavior and emotional problems may be quite distinct from one another.

## Clinical Implications

The ABC Model has implications for the assessment of child psychopathology in clinical practice. First, because the ABC Model posits that informants engage in different processes to access information of the child's behavior from memory and, subsequently, provide information of the child's behavior, the framework speaks to the need to take into account these different processes when assessing child psychopathology. Specifically, informants are discrepant in the extent to which they primarily focus on either the disposition of the child or the context in which the child's behavior is exhibited when providing information of the child's behavior. Thus, it is important that clinicians balance asking general questions of the child's behavior (e.g., does your child experience anxiety around people that he or she does not know?), with additional questions related to the contexts or situations in which these behaviors may or may not occur (e.g., does your child experience anxiety around people that he or she does not know at family functions or parties with other children?). Indeed, assessments that do not take into account both the dispositional and contextual aspects of the child's behavior may lead to under- or overidentification of problems in the clinic setting, depending on the informant. In turn, difficulties that may arise in identifying problems to target in a child's treatment may lead to difficulties in deciding which of the child's problems should be

Second, the ABC Model has implications for how information from multiple informants is interpreted in clinical practice. Indeed, as noted previously, one of the principles of clinical assessment is to gather information from multiple informants that observe the child's behavior in different contexts to gauge the cross-situational consistency or inconsistency of the child's problematic behavior. However, the framework highlights factors related to discrepancies in the processes by which different informants provide information of the child's behavior and, as such, highlights the fact that informants that observe the child's behavior in different contexts also provide information of the child's behavior in different ways. Given these differences, clinicians should refrain from perceiving information from a given informant as "gold standard" information of a child's behavior from a given context (e.g., teacher's ratings as a complete picture of child's behavior in school). Instead, information from a given informant should be interpreted as information that may lead to an understanding of the types of problems a child may be exhibiting and provide insight into what problems should be targeted in treatment, rather than information that can tell a clinician how a child is behaving within a given situation or context. Thus, the ABC Model highlights the importance of clinicians understanding the limits of using information from different informants to gauge how a child behaves across contexts, because of fundamental differences in the mechanisms by which different informants provide information of the child's behavior.

Third, the ABC Model speaks to the saliency of gathering information of informants' perceptions of the reasons why the child exhibits problem behaviors (or the reasons why the child's behavior is not problematic), as well as their perceptions of the prospect of both planning and treating the child for problem behaviors. Indeed, if these perceptions influence how informants

provide information of the child's behavior, then it is imperative that clinicians gauge differences across informants in these perceptions. This additional information may provide insight into the factors that may be accounting for inconsistent information across informants and, as a result, a more complete understanding of the extent to which the child is exhibiting problems. Thus, the ABC Model advocates that, in conjunction with collecting information of children's problems from multiple informants, efforts should be made in collecting information from these informants about their perceptions of why the child is exhibiting these problems (or why they are not exhibiting problem behavior), as well as their perceptions of the treatment of the child for problem behaviors.

Relatedly, a key implication of the ABC Model is that current methods of clinical child assessment can be modified to reduce discrepancies among informants' ratings. However, we emphasize that no modification to clinical child assessment may completely eliminate informant discrepancies; some disagreement among informants' ratings is a clinical reality that is likely unavoidable. In light of the prospect that informant discrepancies may still be evident even after modifications are made to the clinical assessment process, it is important to acknowledge that informant discrepancies themselves may be conceptualized as a useful component in the clinic setting, particularly during treatment planning. Indeed, if discrepancies among informants' ratings reflect, for instance, differences among informants' attributions of the causes of the child's behavior, then such differences may provide insight into the multiple factors that may be contributing to or maintaining the child's presenting problems (e.g., multiple dispositional or contextual/situational factors). In turn, targeting these factors in treatment may prove useful in reducing the child's presenting problems.

Thus, in addition to the ability of the ABC Model to both inform and promote the development of modifications to the clinical assessment process, a strength of the ABC Model is that it highlights how informant discrepancies may be useful in elucidating what factors should be targeted over the course of a child's treatment.8 However, it is critical that, in conceptualizing informant discrepancies as a useful tool for deciphering what factors to target in treatment, efforts should be made to tease apart aspects of discrepancies that reflect these factors that may be useful to target during treatment from aspects of discrepancies that reflect the discrepant mechanisms by which informants provide information of the child's behavior. In other words, when taking into account informant discrepancies during treatment planning, it is critical that such a practice be undertaken within a clinical assessment process that controls for the different ways that informants provide information of the child's behavior. To acknowledge that informant discrepancies are useful to consider in clinical practice is not synonymous with a belief that all informant discrepancies are useful. Indeed, some of the information from these discrepancies may be beneficial to how to conceptualize and plan treatment, and a lot of this information, in light of the inconsistency that defines the construct of informant discrepancies, is simply a reflection of how the different people you rely on to provide information of the child are providing information of the child in fundamentally different ways. Thus, using informant discrepancies to inform treatment must be done with both caution and an understanding

that some of the discrepancies will be insightful, but many of them will not be insightful.

Lastly, if the goal of the clinical assessment process plays a role in the information that different informants provide of the child's behavior, then it is critical that informants are all made aware of the purposes of collecting information from them (e.g., to inform treatment, gauge changes in functioning over the course of treatment) prior to assessment. Indeed, because informants may be discrepant in their attributions of the causes of the child's problem behavior, as well as the perspective they take when providing information of the child's behavior (e.g., child's problems do or do not require treatment), the goal of the clinical assessment process may disproportionately influence informants to provide negative information of the child's behavior. This influence may be particularly salient if informants are not all explicitly made aware of the goal of clinical assessment. For instance, the clinical assessment process may disproportionately influence mother and child to provide negative information of the child's behavior, if the mother knows that the purpose of clinical assessment is to gather ratings to inform treatment planning, whereas the child believes that the assessment is taking place to figure out whether the problems he or she is exhibiting are his or her fault. Thus, because the goal of clinical assessment may influence what information different informants provide of the child's behavior, it is critical that informants are all made aware that the goal of treatment is to collect information of the child's behavior for the purposes of treatment and not for other reasons or ulterior motives (e.g., to ascribe blame on any one person [child, parent] for why the child is exhibiting problem behavior).

## Concluding Comments

The ABC Model raises a number of methodological and conceptual issues that warrant further attention. First, the ABC Model suggests that the context in which information of the child's problems is collected (e.g., for the purposes of planning treatment) is critical in explaining why informant discrepancies exist, because the context may influence discrepancies among the information that informants provide of the child's behavior. Because information on children's behavior and emotional problems is collected in a variety of contexts (e.g., treatment, gauging community prevalence of disorders, examining the etiology of disorders), the model also suggests that there may be a number of mechanisms by which informant discrepancies exist, depending on the context in which information of the child's behavior is collected. Thus, the ABC Model should be limited to conceptualizing and explaining informant discrepancies to those instances in which information of the child's behavior and emotional problems is collected in the clinic setting. Future attention is warranted in conceptualizing why informant discrepancies exist in contexts other than clinical assessments for the purposes of the child's treatment.

Second, similar to prior work on informant discrepancies, the ABC Model operates under the assumption that no one informant's ratings can be used as a "gold standard" by which to measure

<sup>&</sup>lt;sup>8</sup> We thank an anonymous reviewer for his or her comments on this issue

psychopathology in children, or as a measure to gauge the validity or invalidity of the information other informants provide. As a result, the framework does not speak to the validity or invalidity of any one informant's attributions of the causes of the child's behavior, or perspective by which any one informant accesses information of the child's behavior from memory. Relatedly, the ABC Model is limited in its ability to gauge the memory retrieval or memory capacity of different informants, given the framework's lack of a "gold standard" measure by which to interpret the mechanisms by which different informants access information of the child's behavior from memory as leading to the production of correct or incorrect information of the child's behavior.

At the same time, it is probable that potential deficits in an informant's memory capacity may have an impact on the clinical assessment process. For instance, both children and adults are often unable to remember events that occurred before 3–4 years of age (i.e., childhood amnesia; Perner, 2000; Rovee-Collier & Hayne, 2000). Presumably, if a child's problems began prior to 3–4 years of age, then it may be difficult for that child to provide information as to the onset of his or her problem behavior. This difficulty in providing information on problem onset may potentially hinder efforts to gauge the presence and/or severity of the problem on the basis of information gathered from the child and may possibly influence discrepancies between the child's ratings and the ratings of adults that were able to provide information regarding the onset of the child's problems.

Nevertheless, without definitive or "gold standard" information as to when a given child's problems actually began, let alone whether the problems are present at all, it proves difficult to gauge with certainty that discrepancies between adult and child ratings as to the presence or onset of a given problem may be due to a child's inability to recall information regarding the onset of the problem being assessed. Thus, although it is probable that in some cases, children's memory deficits may have an impact on clinical assessment, the ABC Model—and indeed, clinical child assessment—is founded on the notion that no single measure exists to gauge the presence and severity of disorder in children. As a result, presumed memory deficits in a particular informant cannot be verified, given the absence of a single criterion measure by which to judge the accuracy of an informant's ratings in either an absolute or relative sense.

The goal of the review was to provide a viable conceptual framework to guide research. Addressing methodological inconsistencies in how discrepancies are measured or reconciling differences among informants' ratings in the samples of children or disorders studied alone will not advance knowledge very far. Conceptual work is needed to guide critical substantive questions about informant discrepancies and the characteristics of people providing information, as well as the contexts in which information is collected. The ABC Model draws from research on basic psychological processes and connects key findings on informant discrepancies. Perhaps the more salient point is that the literature on informant discrepancies is in dire need of conceptual work and the study of underlying mechanisms. The ABC Model has heuristic value, integrates and draws on aspects of the informant discrepancy literature, and identifies lines of work to understand discrepancies.

In line with the proposed ABC Model, we encourage further conceptual work on informant discrepancies and the processes involved. First, we recommend that future work incorporate the framework in conceptualizing the following: (a) informant discrepancies across different informant pairs used in the clinic setting; (b) the relations among informant characteristics and informant discrepancies; and (c) the measurement of both informant attributions of the causes of the child's behavior and perspectives with regard to whether the child's behavior warrants treatment, as well as the discrepancies among them, and the discrepancies among informant attributions and perspectives and the goal of the clinical assessment process. Second, we recommend that future research incorporate the ABC Model to develop the following: (a) approaches to reduce the discrepancies among informants' ratings and (b) conceptual frameworks examining whether informant discrepancies are related to how participants behave in treatment, and the outcomes of treatments that children receive. In order for future research that examines informant discrepancies to enrich our understanding of the importance and processes underlying this critical facet of clinical child research, concerted efforts should be directed at using the ABC Model to develop and test interventions to reduce the discrepancies among informants' ratings in the clinic setting.

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