Children's Thinking About Diversity of Belief in the Early School Years: Judgments of Relativism, Tolerance, and Disagreeing Persons

Cecilia Wainryb, Leigh A. Shaw, Marcie Langley, Kim Cottam, and Renee Lewis

Children's thinking about diversity of belief in 4 realms—morality, taste, facts, and ambiguous facts—was examined. Ninety-six participants (ages 5, 7, and 9) were interviewed about beliefs different from their own that were endorsed by characters with different status; their judgments of relativism, tolerance, and disagreeing persons were assessed. Five-year-olds made fewer relative and tolerant judgments than 7- and 9-year-olds. Nevertheless, participants of all ages organized their judgments according to the realm of diversity, thought that some beliefs are relative and some are nonrelative, and made tolerant judgments of some divergent beliefs (and their proponents) but not of others. The findings suggest that, in the early school years, children have multiple and well-differentiated perspectives on belief diversity.

Young children, like their older peers, grow up and function in a world where diversity of belief and opinion is ubiquitous. In their conversations and arguments with friends and parents, children as young as 4 or 5 use expressions bearing on knowing and believing, and on truth and falsehood (Hugues & Dunn, 1998; Sabbagh & Callanan, 1998; Walton, 2000). Teachers and parents, furthermore, can attest to how seriously children take some of their differences in belief and opinion. Whereas research has documented how adolescents and young adults think about diversity of belief (e.g., Chandler, 1987; King & Kitchener, 1994; Kuhn, Amsel, & O'Loughlin, 1988; Perry 1970) and how they judge the acceptability of divergent beliefs in different contexts (e.g., Wainryb, Shaw, Laupa & Smith, 2001), little such research has been conducted with children in their early school years. Nonetheless, there is evidence that between the ages of 3 and 9 children go from viewing the mind as a passive recipient of information to understanding that the mind can influence the contents of beliefs. Theory-of-mind research has shown that children progress from a primitive assumption that beliefs are copies of reality at age 3 to an elementary understanding, at the age of 4 or 5, that beliefs are representations of reality and can therefore be mistaken (Astington, Harris, & Olson, 1988). At around the age of 7 or 8, children begin recognizing that differences in belief may also reflect different interpretations of reality (Carpendale &

Chandler, 1996; Chandler & Lalonde, 1996). Given children's developing understandings of the mind, and the inescapable existence of divergent beliefs and opinions in their lives, it is reasonable to ask how young children think about diversity of belief.

The assessment of children's thinking about diversity of belief may be approached in more than one way. Given a particular disagreement, one possibility is to examine whether children think that multiple beliefs may be right or that only one belief is right; another possibility is to examine whether children think it acceptable or unacceptable for persons to endorse beliefs different from their own. The first approach suggests the notion of relativism; the second approach suggests the notion of tolerance. Relativism and tolerance are often used interchangeably in discussions bearing on issues related to diversity. This confusion found its way into psychological research, where relativism and tolerance are rarely recognized as separate dimensions and where data concerning children's tolerant or intolerant attitudes toward diverse beliefs or toward the proponents of diverse beliefs are used to infer their conceptions of knowledge as relative or nonrelative, and vice versa (e.g., Enright & Lapsley, 1981; Mansfield & Clinchy, 1997).

The muddling of relativism and tolerance is unfortunate, however, because assuming a tolerant attitude toward diversity does not require one to judge that all ideas are equally right and does not presume that beliefs cannot be evaluated against nonrelativistic criteria. Moreover, it is possible that relativism and tolerance follow different developmental paths. To obtain a comprehensive picture of

Cecilia Wainryb, Leigh A. Shaw, Marcie Langley, Kim Cottam, and Renee Lewis, Department of Psychology, University of Utah.

Correspondence concerning this article should be addressed to Cecilia Wainryb, Department of Psychology, University of Utah, 390 S. 1530 East, Salt Lake City, UT 84112. Electronic mail may be sent to cecilia.wainryb@psych.utah.edu.

young children's thinking about diversity of belief, it becomes necessary to assess each dimension separately. In the present study we asked participants to consider a series of disagreements between pairs of characters who expressed opposite beliefs, and elicited their judgments of relativism (i.e., whether only one or both beliefs are right) and their judgments of tolerance (i.e., whether it is acceptable or unacceptable for a character to believe a divergent belief). Because previous research has equated tolerance to a positive evaluation of the proponents of divergent beliefs (Enright & Lapsley, 1981; Sigelman & Toebben, 1992), participants' judgments about the disagreeing persons were also elicited.

The assessment of children's thinking about diversity of belief also draws attention to the realms of diversity. Diversity of belief is not limited to a particular realm of thought; people endorse divergent beliefs about, among others, what is morally right, what is true, and what is valuable or aesthetic. Moreover, children as young as 4 or 5 have been shown to recognize that people may hold diverse ("false") beliefs in different realms of thought (Flavell, Flavell, Green, & Moses, 1990; Flavell, Mumme, Green, & Flavell, 1992). Typically, however, researchers investigating how children think about beliefs and belief diversity have focused on how children's thinking changes with age rather than on how it varies with the realm of belief.

Enright and Lapsley (1981), for example, asked children and adolescents to state their opinion about a broadly diverse set of issues, such as whether it is best to obey a teacher or help a friend, to keep a date with a friend or accept a more alluring invitation, or to allow the American Nazi party to stage a march or protect the community from offense. Subsequently, they were asked to judge hypothetical individuals who allegedly took the opposite stand. Regardless of whether the dissenting opinions expressed just positions, unjust positions, personal preferences, or a combination of all, all dissenting positions, because they were dissenting, were implicitly considered to be conceptually equivalent and were combined into a single score. Based on age differences in modal responses across issues, Enright and Lapsley depicted a developmental progression from a generalized intolerant attitude during the childhood years through a tolerant evaluation of disagreement during adolescence.

A similar emphasis on the sequence of development has characterized research on epistemological thinking. Although this research has been typically conducted with adolescents and adults (e.g., Chandler, 1987; King & Kitchener, 1994; Kuhn et al.,

1988; Perry, 1970), research conducted with children suggests that before the age of 4 or 5, children assume that knowledge mirrors objective reality—an epistemological position known as naive realism or "egocentric subjectivity" (Burr & Hofer, 2002, p. 220). Next, children progress to a position of absolutism or objectivism; although they recognize the distinction between knowledge and reality, they still judge beliefs against standards of truth dictated by objective reality and "postulat[e] a single right answer even to questions of value and interpretation" (Mansfield & Clinchy, 1993, p. 7). School-age children acknowledge that exposure to different information may lead to differences in knowledge but still believe that the source of these differences lies in the external world and that there is only one valid belief for any given issue. Researchers have proposed that only in middle to late childhood do children develop a relativist or multiplist level of epistemological understanding, "leading eventually to the idea that knowing can never be more than subjective opinion" (Kuhn & Weinstock, 2002, p. 126). Although researchers of epistemological development have not stated in any explicit way that epistemological positions are stages, recent comprehensive reviews of this research (Hofer & Pintrich, 1997; Kitchener, 2002; Pillow, 1999) have concurred that most major attempts at characterizing epistemic thinking have endorsed, at least implicitly, the notion of a sequence of stages that transcends domain boundaries.

Research on other aspects of development, by contrast, suggests that domain specificity merits attention even in early childhood. Beginning in the 1980s, a growing body of research on cognitive development has demonstrated that children's thinking includes separate systems of thought, and that children as young as 4 or 5 draw distinctions among different types of categories (e.g., Carey, 1984; Gelman, 1988; Keil, 1986). Similarly, a large body of research on sociomoral development has shown that children's judgments of right and wrong are organized according to specific systems of knowledge, and that by the age of 4 or 5 children make different types of judgments depending on whether they evaluate wrongs in the realm of morality, social convention, or personal preference (e.g., Damon, 1983; Turiel, 1983). In general, this research suggests the possibility that children might think differently about divergent beliefs bearing on different realms of thought.

Further support for this proposition comes from recent studies conducted, from different traditions, with participants in their teens, 20s, and adult years. In one study, participants were asked about instances

of conflicting beliefs that varied, among other dimensions, in terms of the realm of thought. Participants did not think that all divergent beliefs were equally acceptable; rather, they drew distinctions according to the realm of conflict. Most participants, regardless of age, thought it was acceptable, and in some cases desirable, to hold divergent metaphysical, conventional, and psychological beliefs but also thought that divergent moral beliefs were wrong and unacceptable (Wainryb et al., 2001). In another study investigating developing conceptions of knowledge, participants were shown to adhere to different epistemological positions with regard to different realms of knowledge. For example, they expressed objectivist views about matters of fact and moral values, and relativistic views about matters of personal preference and aesthetics (Kuhn, Cheney, & Weinstock, 2000; see also Mansfield & Clinchy, 2002). Although these studies did not include children younger than 10, the previously mentioned findings from cognitive and sociomoral development research led us to expect that even young children will draw such domain-specific distinctions in their thinking.

To examine this hypothesis, it is necessary to define the domains of interest and their boundaries; the task is not straightforward. One possibility is to rely on the distinction between values and facts and to think of domains of knowledge as representing "different points along a rough continuum from highly subjective matters of personal preference to highly objective matters of fact" (Mansfield & Clinchy, 2002, p. 230). The approach taken in this study relies on a different conceptual framework (Turiel & Davidson, 1986). In this framework, the strategy for domain identification involves considerations concerning both the substance of epistemological categories and the type of subject–object interaction. This strategy yields several domains that, rather than representing points along a subjectivity–objectivity continuum, constitute qualitatively different systems of thought that can be distinguished in terms of specific criteria. Research proceeding from this conceptual framework, dealing largely with the social realm of thought, has shown that even young children recognize that not all value judgments are subjective and distinguish among qualitatively different realms of values. Value judgments made about matters of taste and personal preference are, indeed, recognized as subjective, relative, arbitrary, and nonprescriptive, as well as within the realm of personal jurisdiction. By contrast, value judgments bearing on matters of morality and justice are understood to be nonsubjective, nonrelative, and non-arbitrary, as well as prescriptive across social contexts and independent of personal considerations. Finally, value judgments bearing on matters of convention and social organization, though also nonsubjective, prescriptive within social contexts, and independent of personal considerations, are nonetheless arbitrary and relative (for a comprehensive review of this research, see Turiel, 1998).

Although children's thinking about facts and truths has not been as extensively investigated from a domain-specific perspective as their thinking about values, recent research suggests that children also draw distinctions among different types of facts. As examples, in studies comparing children's thinking about facts bearing on easily perceptible and unequivocal features in the external world and their thinking about facts that refer to ambiguous features of reality (e.g., Carpendale & Chandler, 1996; Chandler & Lalonde, 1996) or facts that are the product of societal construction (e.g., Kalish, 1998), young children recognize that some fact beliefs are true or false regardless of personal considerations, others are open to subjective interpretation and support more than a single reasonable interpretation, and still others are subjective and relative inasmuch as they reflect societal processes and consensus.

Findings supportive of the domain-specific nature of children's thinking about both value beliefs and fact beliefs led us to expect that, when thinking about beliefs different from their own, young children would not make the same types of judgments about all beliefs. Instead, we expected that their judgments about diversity of belief (i.e., their judgments concerning relativism, tolerance, and disagreeing others) would vary systematically according to the realm of diversity. To investigate these issues, we contrasted children's thinking about diversity in four realms of belief: (a) beliefs about morals are value statements that refer to nonsubjective and nonrelative principles of fairness and welfare, (b) beliefs about matters of taste are value statements that refer to subjective matters of preference and choice, (c) beliefs about matters of fact are truth statements about matters that are easily perceptible and verifiable, and (d) beliefs about ambiguous facts are also truth statements that concern matters about which it is impossible to determine what is true given the available information. The beliefs bearing on morality and taste were chosen to represent value beliefs corresponding, respectively, to the moral and personal domains (Turiel, 1983); the beliefs bearing on facts and ambiguous facts were chosen to represent fact beliefs. (Beliefs bearing on conventions, though distinct and important, were not included in this study.

Because conventions are prescriptive within context and relative across contexts, to study appropriately children's understanding of conventionality it would have been necessary to also include context as a variable. This would have resulted in a design far too complicated for this very young sample, but see Wainryb et al., 2001).

The notion of domain specificity does not preclude development but rather posits that developmental changes take place within domains. Indeed, outlines for within-domain conceptual development have been proposed for the moral (Davidson, Turiel, & Black, 1983), conventional (Turiel, 1983), and personal (Nucci & Lee, 1993) domains. A relatively well-documented manifestation of domain-specific conceptual development concerns the changes in children's understandings of the defining criteria of each domain. As an example, research has shown that by the age of 4 or 5, children understand criteria such as seriousness, permissibility, or rule contingency, and recognize how these criteria distinguish among realms of thought; by contrast, children's understanding of the criterion of relativity lags by several years. Data from several studies, for example, indicate that before the ages of 7 or 8, children tend to judge concerns in the conventional realm in nonrelative terms (Smetana, 1981; Smetana & Braeges, 1990; Smetana, Schlagman, & Adams, 1993).

Based on these findings, we thought it likely that children's judgments about the relativism of beliefs (i.e., whether only one or more than one belief are right) might undergo changes between the ages of 5 and 9, but only with respect to those realms of belief whose features include relativity. (Children younger than 5 were not included in this study, as they are unlikely to consider beliefs different from their own in meaningful ways; Astington et al., 1988). Accordingly, with regard to the realms of taste and ambiguous facts, we expected 9-year-olds, but not yet 5-year-olds, to reason that multiple beliefs can be right because they refer to subjective matters (as in the case of taste) or to matters of fact that cannot be known with certainty (as in the case of ambiguous facts). Because of their difficulty grasping the notion of relativism, we expected 5-year-olds (more so than their older peers) to reason that multiple beliefs cannot be right even in the realms of taste and ambiguous facts. With regard to the realms of morality and fact, which do not comprise relativism, we expected children, regardless of age, to make nonrelative judgments based on concerns with fairness (morality) or truth (fact).

Recent research suggests that young children's judgments of tolerance also are likely to be informed by both age and the realm of diversity. Like previous research (Enright & Lapsely, 1981), our research with children in their teens and 20s has indicated that, with age, children become more tolerant of divergent beliefs (Wainryb et al., 2001; Wainryb, Shaw, & Maianu, 1998). However, our data also showed that even adolescents and young adults make less tolerant judgments of divergent beliefs bearing on morality and justice than of other divergent beliefs; they also judge more negatively persons who endorse divergent moral beliefs. On the basis of these findings we expected that, when compared with their older peers, 5-year-olds might make fewer tolerant judgments of divergent beliefs and of the characters who endorse them. We also expected that children of all ages would make less tolerant judgments of divergent moral beliefs than of other divergent beliefs and would evaluate less positively proponents of divergent moral beliefs than proponents of other divergent beliefs.

A secondary question of the study was whether children's thinking about diversity varies with the status of the person endorsing the divergent belief. The notion of status (in terms of age, expertise, or power) has figured prominently in stage-related explanations of the development of epistemological (Perry, 1970) and moral (Kohlberg, 1969) concepts. Research conducted from a domain-specific perspective, however, has indicated that the effect of status on children's thinking is not uniform across domains. As examples, it has been found that even young children are not blindly obedient or uncritical of adults and judge that adults cannot legitimately change moral, logical, or physical rules or issue orders to violate those rules (e.g., Komatsu & Galotti, 1986; Laupa & Turiel, 1986; Nicholls & Thorkildsen, 1988). It bears asking, therefore, how children judge divergent beliefs that are endorsed by persons with more and less status. To examine this question, we contrasted participants' judgments (i.e., relativism, tolerance, and disagreeing person) about divergent beliefs endorsed by an adult character and by a child character. Although a character's age is only a proxy for status, it is common for adults to directly and indirectly instruct children about what is true and right, and for children to turn to adults when they want to know what is true and right. Therefore, children (especially young children) are likely to perceive an adult character as having more status than a child character. Although findings from previous research do not bear directly on children's thinking about diversity of belief, they do suggest that the status of the character endorsing the divergent belief might inform participants' judgments

about diversity (especially their judgments of tolerance) in some realms (e.g., beliefs about taste or ambiguous facts) but not—or less—in others (e.g., moral or fact beliefs).

Method

Participants

The sample included 96 participants, 16 males and 16 females in each of three age levels: 5-year-olds ($M = 4$ years, 11 months; range = 4,6 to 5,6), 7-year-olds ($M = 6,11$; range = 6,6 to 7,5), and 9-year-olds ($M = 9,1$; range = 8,7 to 9,9). Participants were of middle class and were primarily (72%) Caucasian (the proportion of Hispanic [16%], African American [7%], Asian [4%], and American Indian [1%] participants is representative of the population from which the sample was recruited). Participants attended a local preschool and a public school in a mid-size Western city. Parental consent and participant assent were obtained for all participants.

Design and Assessments

The overall purpose of this study was to examine whether young children's thinking about beliefs different from their own varies with age, realm of disagreement, and status of the disagreeing character. For this purpose, participants in three age groups were told about a series of two characters that express conflicting beliefs.

The status of the disagreeing character (child or adult) was varied between participants. Half of the participants in each age group were told that the characters expressing conflicting beliefs were two children of the participant's age (e.g., "Sarah and Sophie are first graders, just like you"). The other half were told that the characters were a child of the participant's age and an adult (e.g., "Sarah is a first grader, just like you; Mrs. Davidson is a grown-up"); in this condition, the adult character was always the one who expressed the belief with which participants disagreed. To facilitate comprehension and retention, participants were shown 8.5 in. × 11 in. colorful drawings depicting either two same-age children or a child and an adult, and interviewers pointed to the characters and named them as they presented the characters' beliefs.

The realm of disagreement was manipulated within participants. All participants were told about four disagreements each bearing on a different realm, as follows:

1. moral disagreements, bearing on matters of fairness and welfare (e.g., "Sarah believes that it's okay to hit and kick other children, and Sophie believes that it's wrong to hit and kick other children");
2. taste disagreements, bearing on matters of taste and preference (e.g., "Daniel believes that chocolate ice cream tastes yucky, and David believes that chocolate ice cream tastes yummy");
3. fact disagreements, bearing on perceptible and easily verifiable physical facts (e.g., "Paula believes that when you let go of pencils the pencils go up, and Leah believes that they fall down");
4. ambiguous fact disagreements, bearing on ambiguous matters that support more than one interpretation (e.g., "Ben believes that the dog is not eating because it doesn't like the food, and Lucas believes that the dog is not eating because it's not hungry").

Before the presentation of each set of two characters and their conflicting beliefs, a baseline assessment was included to ascertain participants' own belief (e.g., "Do you think it is okay or not okay to hit and kick other children?" "If you let go of a pencil, do you think it will go up or fall down?") and thereby ensure that, for each disagreement, one of the characters endorsed a belief consistent with the participant's belief and the other endorsed a belief not shared by the participant. After answering the baseline question and hearing the description of the disagreement, participants were asked recall questions (e.g., "What does Sarah believe?" "And what does Sophie believe?"); all participants were able to recall accurately and attribute accurately the beliefs to the characters in each of the four scenarios. Subsequently, the following assessments were obtained for each disagreement.

Relativism judgment. "Do you think that only one belief [what Sophie believes] is right, or do you think that both beliefs [what both Sophie and Sarah believe] are right?" (Participants who stated that only one belief is right were also asked, "Which one is right?") "Why [is only one belief right/are both beliefs right]?"

Tolerance judgment. "Do you think that it is okay for [disagreeing character] to believe [divergent belief] or do you think that it is not okay for him/her to believe that? Why is it okay/not okay for him/her to believe that?"

Judgment of disagreeing person. "What do you think about [disagreeing character], the [child/grown-up]

who believes [divergent belief]? What kind of person do you think he/she is?"

To allow for generalizability across content areas and to reduce the effects of a monomethod bias, two comparable versions of each disagreement were designed. One version included disagreements over whether it is okay for a child to hit other children (morality), whether chocolate ice cream tastes yummy or yucky (taste), whether pencils fall up or down (fact), and whether a dog refuses to eat because it does not like the food or because it is not hungry (ambiguous fact). The other version included disagreements over whether it is okay for a child to break other children's toys (morality), whether red flowers are pretty or ugly (taste), whether rain is dry or wet (fact), and whether a dog refuses to play because it does not like the ball or because it is tired (ambiguous fact). Half of the participants in each age group heard one of the versions of each realm of disagreement. Each pair of characters expressing conflicting beliefs was always of the same gender (i.e., either both male or both female); the characters' gender was counterbalanced within each age and gender group and status condition, using a Latin square design. The presentation order of the four disagreements was also counterbalanced with a Latin square design within each age and gender group and status condition. Participants were individually interviewed; interviews were tape recorded and subsequently transcribed for analysis.

Scoring and Reliability

Scoring categories were formulated on the basis of scoring systems developed in previous related studies (Davidson et al., 1983; Wainryb et al., 2001; Wainryb et al., 1998) and elaborated by scoring 20% of this study's protocols. Relativism judgments were scored dichotomously, with a score of 1 indicating nonrelativism (i.e., only one belief is right) and a score of 2 indicating relativism (i.e., both beliefs are right). Tolerance judgments were also scored dichotomously, with scores of 1 and 2 indicating, respectively, nontolerance and tolerance (i.e., that it is unacceptable or acceptable for the character to believe the divergent belief). In addition to scoring the judgments, the justifications given for relativism judgments (i.e., the reasons for judging that beliefs are relative or nonrelative) and for tolerance judgments (i.e., the reasons for judging it acceptable or unacceptable to hold the divergent belief) were also scored. Multiple justifications were allowed in each case, but participants gave only one response per question, which is not unusual in research with young children. Justifications were thus scored dichotomously, with scores of 1 and 0 indicating, respectively, that each relevant category was used or not used.

Justification categories for relativism included references to subjectivity (e.g., "What she thinks is right and what she thinks is also right because ice cream can taste good to her and gross to her"), uncertainty (e.g., "They can both be right because there's no way to know for sure, maybe the dog is hungry and maybe he doesn't like the food"), truth (e.g., "What that girl says is wrong and what this one says is right because pencils fall down, for sure, they never fall up"), and fairness (e.g., "What this one says is very wrong because it's mean and it's unfair to break other people's toys").

Justification categories for tolerance included references to personal choice (e.g., "It's okay for her to believe that, it's the way she thinks and it's her choice"), uncertainty (e.g., "It's okay that he believes that because no one can tell what's really true"), diverse experience (e.g., "It's okay for her to think that because maybe she saw something fall and then bounce, and so she thought that things fall up"), truth (e.g., "It's not okay for him to believe that because it's not true; rain is always wet"), and consequences (e.g., "She shouldn't believe that because then she's gonna start hurting little kids").

Categories for scoring judgments of disagreeing persons included the following person descriptors: bad (e.g., "He's a bad person, really mean"), not smart (e.g., "He's not very smart if he thinks that there's no gravity on earth"), weird (e.g., "She's really weird if she doesn't like chocolate"), and nice/normal (e.g., "She just thinks bad things but she's nice"; "He doesn't like ice cream but he can still be normal"). Statements that persons cannot be judged based only on their beliefs were coded as judgment withheld (e.g., "You don't know a person just from what they say; she could be anything"). Although multiple person descriptors were allowed, participants gave a single descriptor per disagreement. Person descriptors were thus scored dichotomously, with scores of 1 and 0 indicating, respectively, that each relevant descriptor was used or not used.

Scoring reliability was assessed through recoding of 20% of the protocols. Interjudge agreement was 100% for the scoring of relativism judgments, 100% for tolerance judgments, 99% for relativism justifications (Cohen's kappa = .981), 97% for tolerance justifications (Cohen's kappa = .958), and 93% for person descriptors (Cohen's kappa = .939).

Results

Preliminary analyses of all assessments by sex and version were conducted. Only 1% of the main effects and interactions involving sex or version was significant; both variables were dropped from subsequent analyses. Judgments about whether only one or both beliefs are right (relativism judgments) and whether it is acceptable or unacceptable to believe the divergent belief (tolerance judgments) were analyzed using analyses of variance[1] (ANOVAs) by realm of disagreement, status of disagreeing character, and age, with realm as a repeated measure. Multivariate analyses of variance (MANOVAs) by realm, status, and age, with realm as a repeated measure, were performed on the proportional use of relativism justifications, tolerance justifications, and judgments of disagreeing persons (unelaborated responses were not included in the analyses). Sphericity checks were conducted and, where appropriate, the Huynh-Feldt adjustment was used; analyses with and without the adjustments yielded identical results. For all analyses, post hoc comparisons using Duncan multiple-range tests and Bonferroni t tests were performed to test significant between-subjects and within-subjects effects, respectively.

Relativism

Judgments. Relativism judgments, by realm of disagreement and age, are presented in the upper half of Table 1. The ANOVA yielded the predicted Realm × Age interaction, $F(6, 258) = 4.07$, $p < .001$, $\eta^2 = .08$. As expected, regardless of age, nearly all participants made the nonrelative judgment that moral and factual disagreements support a single right belief. By contrast, significant age differences were found in participants' judgments about the realms of ambiguous facts and taste. Only about one

[1]An extensive empirical investigation using the Monte Carlo technique demonstrated that ANOVA-based procedures are robust when used with dichotomous data (Lunney, 1970; see also D'Agostino, 1971; Gaito, 1980). The alternative analytic strategy based on log-linear models is likely to run into a distinct estimation problem when applied to designs in which a powerful experimental manipulation yields a fair number of empty cells. Empty cells represent a fundamental constraint for log-linear models as the log of zero is undefined. The standard strategy of deleting empty cells by excluding levels of the dependent or independent variables compromises the integrity of the data. The other standard strategy, of adding a small constant to empty cells, does not work well with repeated-measures designs. ANOVA models, by contrast, can get around this estimation problem as even minimal variance makes it possible to calculate means and generate estimates (Wainryb et al., 2001).

third of 5-year-olds but most of the 7- and 9-year-olds judged that disagreements bearing on ambiguous facts and on taste support multiple right beliefs. No significant effects or interactions were found for the status of the disagreeing character.

Justifications. The distribution of justifications given for relativism judgments, by realm and age, is presented in Table 2. The MANOVA on the justifications yielded significant effects for realm, $p < .001$, and age, $p < .001$, and a significant Realm × Age interaction, $p < .01$; no significant effects were found for status. Follow-up ANOVAs by realm and age were subsequently performed. As expected, participants gave two types of justifications for their nonrelativistic judgments: They referred exclusively to moral criteria (fairness) to justify why moral beliefs are nonrelative, and they referred to the beliefs' correspondence with reality (truth) to justify the nonrelative judgments about all other beliefs. Whereas nearly all participants referred to the notion of truth to justify the nonrelative nature of fact beliefs, fewer did so in regard to beliefs about ambiguous facts, and still fewer in regard to taste, $F(3, 279) = 146.47$, $p < .001$, $\eta^2 = .61$. As expected, however, 5-year-olds referred to the notion of truth in regard to beliefs about taste more often than did older participants, $F(6, 279) = 2.68$, $p < .05$, $\eta^2 = .05$. Two types of justifications were also commonly given for relativistic judgments. References to the subjective nature of reality (subjectivity) were more common for justifying the relativism of beliefs bearing on taste, $F(3, 279) = 141.54$, $p < .001$, $\eta^2 = .60$, and references to the inscrutable nature of reality (uncertainty) were made exclusively in regard to beliefs that concern ambiguous facts. As expected, older participants appealed to each of these justifications more than did younger participants, $Fs(6, 279) > 5.07$, $ps < .001$, $\eta^2s > .10$.

Tolerance

Judgments. Tolerance judgments, by realm of disagreement and age, are presented in the lower half of Table 1. As expected, 7- and 9-year-olds made more positive judgments of divergent beliefs than did 5-year-olds, $F(2, 87) = 6.62$, $p < .001$, $\eta^2 = .13$, and, regardless of age, participants made more positive judgments of divergent beliefs about facts, ambiguous facts, and taste than about morality, $F(3, 261) = 94.15$, $p < .001$, $\eta^2 = .52$. As also expected (though the effect only approached significance), participants' judgments of the acceptability of divergent beliefs varied with the status of the character proposing them, and the effect was not uniform

Table 1

Judgments About the Relativism and Tolerance of Divergent Beliefs, by Realm of Disagreement and Age (Means and Percentages)

Judgment	Morality			Facts			Ambiguous facts			Taste		
	5	7	9	5	7	9	5	7	9	5	7	9
Relativism												
M^a	1.0	1.0	1.1	1.0	1.0	1.1	1.4	1.5	1.7	1.4	1.7	1.9
SD	(.0)	(.0)	(.2)	(.0)	(.2)	(.2)	(.5)	(.5)	(.5)	(.5)	(.5)	(.2)
% relative	0	0	6	0	3	6	37	48	69	35	66	94
Tolerance												
M^b	1.1	1.2	1.2	1.6	1.8	1.8	1.7	1.8	1.9	1.6	1.8	2.0
SD	(.3)	(.4)	(.4)	(.5)	(.4)	(.4)	(.5)	(.4)	(.2)	(.5)	(.4)	(.2)
% tolerant	6	16	22	55	81	78	73	84	94	56	81	97

[a]1 = nonrelative (only one belief is right); 2 = relative (both beliefs are right). [b]1 = nontolerant (it is not okay to believe); 2 = tolerant (it is okay to believe).

across realms, $F(3, 261) = 2.18$, $p < .05$, $\eta^2 = .02$. Participants were more tolerant of divergent moral beliefs proposed by child characters (19%) than by adult characters (10%). Conversely, they were more tolerant of divergent taste and fact beliefs proposed by adult characters (83% and 79%, respectively) than by child characters (73% and 64%, respectively).

Justifications. The distribution of justifications for why divergent beliefs are acceptable or unacceptable, by realm and age, is presented in Table 3. The MANOVA on the justifications for tolerance judgments yielded significant effects for realm, $p < .001$, and age, $p < .05$, and a marginally significant Realm × Age interaction, $p < .10$; no significant effects for status were found. Follow-up ANOVAs by realm and age were subsequently performed. In justifying their judgment that diversity in moral beliefs was unacceptable, most participants referred, as expected, to the harm that might ensue from those beliefs (consequences). Concerns with harmful consequences were rarely raised in regard to other types of divergent beliefs; instead, participants reasoned that it was unacceptable to hold divergent factual beliefs, and to a lesser extent divergent beliefs about taste and ambiguous facts, because those beliefs fail

to accurately represent reality (truth). Also as expected, the most common justification for judging that diversity of belief was acceptable was that the content of one's beliefs is a matter of personal choice. This reason was used to justify the acceptability of divergent beliefs bearing on taste more than the acceptability of divergent beliefs bearing on facts or ambiguous facts, and was used rarely in reference to divergent moral beliefs. In addition, participants stated that it is acceptable to endorse divergent beliefs about facts (more than other beliefs) because such beliefs ensue from a person's unique experiences (diverse experience), and divergent beliefs about ambiguous facts (but not other beliefs) because of the uncertain nature of reality, $Fs(3, 279) > 15.47$, $ps < .001$, $\eta^2 s > .14$. Several significant effects involving age were also found. Regardless of the realm of disagreement, 5-year-olds referred more frequently than did older participants to the harmful consequences ensuing from divergent beliefs and to the inaccuracy of these beliefs, $Fs(2, 93) > 4.05$, $ps < .05$, $\eta^2 s > .08$. Older participants also referred to certain justifications with greater frequency than did their younger peers, but did so only in the context of specific realms of disagreement. Older participants,

Table 2

Justifications for Relativism Judgments, by Realm of Disagreement and Age (Percentages)

Justification	Morality			Facts			Ambiguous facts			Taste		
	5	7	9	5	7	9	5	7	9	5	7	9
Fairness	100	100	94	0	0	0	3	0	0	16	6	0
Truth	0	0	0	97	97	94	56	50	34	47	28	6
Subjectivity	0	0	6	0	3	6	6	6	0	34	66	94
Uncertainty	0	0	0	0	0	0	28	41	66	0	0	0
Unelaborated	0	0	0	3	0	0	6	3	0	3	0	0

Note. Percentages may not add up to 100 because of rounding.

Table 3

Justifications for Tolerance Judgments, by Realm of Disagreement and Age (Percentages)

	Morality			Facts			Ambiguous facts			Taste		
Justification	5	7	9	5	7	9	5	7	9	5	7	9
Consequences	94	84	78	0	0	0	3	0	0	16	6	0
Truth	0	0	0	44	19	22	22	16	6	25	13	3
Personal choice	6	13	22	34	38	34	50	53	44	56	78	97
Diverse experience	0	3	0	19	44	44	3	6	13	0	0	0
Uncertainty	0	0	0	0	0	0	13	25	38	0	0	0
Unelaborated	0	0	0	3	0	0	9	0	0	3	3	0

Note. Percentages may not add up to 100 because of rounding.

more often than younger participants, referred to personal choice to justify the acceptability of divergent beliefs bearing on taste, to the uncertain nature of reality to justify the acceptability of divergent beliefs bearing on ambiguous facts, and to the diversity of persons' experiences to justify the acceptability of divergent beliefs bearing on facts, $Fs(6, 279) > 2.19$, $ps < .05$, $\eta^2 s > .05$.

Relativism and Tolerance

Collectively, the findings reported in the previous sections indicate that, in regard to whether multiple beliefs can be right, participants made both relativistic and nonrelativistic judgments. Similarly, in judging the acceptability of diversity of belief, they made both tolerant and nontolerant judgments. In this section we examine the various combinations of judgments about relativism and tolerance. Children might assume a nonrelativistic and nontolerant stance or a relativistic and tolerant stance, or they might make nonrelativistic judgments (e.g., that beliefs can be evaluated according to nonsubjective criteria) while assuming a tolerant position (e.g., that it is acceptable for persons to hold to the "wrong" or "mistaken" beliefs). Our hypothesis was that specific combinations of judgments bearing on the acceptability and relativity of beliefs are systematically associated with specific realms of disagreement, and that age-related shifts occur within realms of disagreement. To examine this question, participants' judgments of relativism and tolerance (for each realm of disagreement) were sorted into three combinations, or profiles, as follows: nonrelativistic–nontolerant (NR–NT), nonrelativistic–tolerant (NR –T), and relativistic–tolerant (R–T). Virtually all judgments could be sorted into one of the three profiles. (A fourth relativistic–nontolerant combination, though empirically possible, makes no conceptual sense. This fourth combination was observed in 3 of

384 cases; those responses were excluded from the subsequent analyses.) Participants were thus assigned four profile scores, one for each realm of disagreement. The distribution of the proportional use of each profile, by realm and age, is presented in Table 4. Perusal of these data indicates that participants were not constrained to an NR–NT profile. Furthermore, statistical analyses (the proportional use of each profile was subjected to a repeated-measures ANOVA by realm and age, with realm as a repeated measure) indicated that each profile was associated with a particular realm (or realms) of diversity. Although 5-year-olds resorted to the NR–NT profile more often than did 7- or 9-year-olds, $F(2, 93) = 6.74$, $p < .01$, $\eta^2 = .13$, participants in all age groups resorted to this profile more often for judging moral diversity than all other realms of diversity, $F(3, 279) = 100.25$, $p < .001$, $\eta^2 = .52$. Similarly, although 7- and 9-year-olds resorted to the R–T profile more often than did 5-year-olds, $F(2, 93) = 14.57$, $p < .001$, $\eta^2 = .24$, participants in all age groups resorted to this profile almost exclusively for judging diversity about matters of taste and ambiguous facts, $F(3, 279) = 95.96$, $p < .001$, $\eta^2 = .51$. Regardless of their age, participants resorted to the NR–T profile for judging diversity bearing on facts more than any other realm of diversity, $F(3, 279) = 42.47$, $p < .001$, $\eta^2 = .31$.

Disagreeing Persons

The distribution of person descriptors, by realm and age, is presented in Table 5. The MANOVA on the person descriptors yielded significant effects for realm and age, $ps < .001$, and a significant Realm × Age interaction, $p < .05$; no significant effects involving status were observed. Follow-up ANOVAs by realm and age were subsequently performed. As expected, participants used positive descriptors (nice/normal) to describe characters who

Table 4

Relativism and Tolerance Judgments, by Realm of Disagreement and Age (Percentages)

Judgment	Morality			Facts			Ambiguous facts			Taste		
	5	7	9	5	7	9	5	7	9	5	7	9
Nonrelative – nontolerant (NR – NT)	94	84	77	45	19	22	24	16	3	42	19	3
Nonrelative – tolerant (NR – T)	6	16	19	55	78	72	41	35	29	23	16	3
Relative – tolerant (R – T)	0	0	3	0	3	6	34	48	68	34	66	94
n	32	32	31	31	32	32	29	31	31	31	32	32

Note. Percentages may not add up to 100 because of rounding.

expressed divergent beliefs bearing on taste, ambiguous facts, and (to a lesser extent) facts, but rarely for characters who expressed divergent moral beliefs, $F(3, 279) = 40.9$, $p < .001$, $\eta^2 = .31$. Conversely, participants described characters as bad who expressed divergent moral beliefs more often than those who expressed divergent taste beliefs, and they rarely described characters as bad who expressed divergent beliefs bearing on facts or ambiguous facts, $F(3, 279) = 85.2$, $p < .001$, $\eta^2 = .48$. Participants described characters as not smart who expressed divergent fact beliefs more often than other beliefs, $F(3, 279) = 24.3$, $p < .001$, $\eta^2 = .21$, and described characters as weird only infrequently. Several significant findings involving age were observed. Regardless of the realm of disagreement, 7- and 9-year-olds described disagreeing characters as nice/normal more often than did 5-year-olds, $F(2, 93) = 4.9$, $p < .001$, $\eta^2 = .10$. Nine-year-olds, more often than 5- and 7-year-olds, withheld judgment about characters who expressed divergent beliefs bearing on the realms of taste and ambiguous facts but not other realms, $F(6, 279) = 3.5$, $p < .001$, $\eta^2 = .07$. Five-year-olds, more often than 9-year-olds, described characters as bad who expressed divergent beliefs about taste, but there were no age differences in the frequency of negative descriptions of characters who

expressed other divergent beliefs, $F(6, 279) = 3.6$, $p < .001$, $\eta^2 = .07$.

Discussion

This research bears on how children in their early school years think about diversity of belief. Recall—for this is an important feature of this study's design—that participants were asked to judge beliefs that were different from those they had endorsed in a baseline assessment. In their judgments, children distinguished between divergent beliefs that in their view were wrong and those that, though different from their own, could nevertheless be right; they also judged that it was unacceptable for people to endorse certain divergent beliefs but acceptable for them to endorse others (including some that participants themselves considered to be wrong). The realm of diversity stood out as a central feature according to which these young children distinguished between relative and nonrelative beliefs and between acceptable and unacceptable diversity; age-related effects were also embedded in the matrix of this realm-specific organization. Because children's judgments of relativity and tolerance displayed distinct realm-related patterns we, first, recapitulate the main results for each type of judgment.

Table 5

Person Descriptors, by Realm of Disagreement and Age (Percentages)

Person descriptor	Morality			Facts			Ambiguous facts			Taste		
	5	7	9	5	7	9	5	7	9	5	7	9
Nice/normal	6	16	6	22	53	34	50	72	69	37	66	69
Bad	63	66	78	16	3	3	16	6	0	41	22	6
Not smart	25	13	9	50	28	41	19	9	0	9	0	3
Judgment withheld	3	3	0	0	3	13	3	3	28	3	0	19
Weird	0	3	6	6	13	9	6	6	3	3	9	3
Unelaborated	3	0	0	6	0	0	6	3	0	6	3	0

Note. Percentages may not add up to 100 because of rounding.

Consider children's judgments concerning the relativity (or nonrelativity) of beliefs. Only a minority of children in this study (22%) judged that the divergent beliefs in all four realms of disagreement were wrong. For the most part, children judged that divergent beliefs bearing on morality (e.g., "It is okay to hit and kick others") and fact (e.g., "Rain is dry") were wrong but also judged that more than one belief may be right in the context of disagreements bearing on taste (e.g., "Chocolate ice cream tastes yucky") and ambiguous facts (e.g., "The dog isn't eating because it isn't hungry"). In justifying their judgments, children referred to concerns that were consistent with the epistemological features of each realm. The majority referred to concerns with others' welfare and with fairness as the grounds for judging that moral beliefs are not relative (e.g., "Kicking other kids is mean because it hurts them, so what that kid said is just wrong, very wrong"), and to concerns with truth as the grounds for judging that fact beliefs are not relative (e.g., "If she goed outside she'd see that rain is always wet, so her belief is all wrong"). In justifying the relativity of beliefs bearing on taste and ambiguous facts, children referred to the subjective nature of reality (e.g., "People have their own tastes, so both beliefs are right actually") or the uncertain nature of reality (e.g., "It's not like we can ask the dog if he's hungry, so maybe this kid is right and the other kid is right too").

Children's judgments of tolerance were also differentiated by realm, but in a different manner. In this case, children distinguished systematically between the realm of morality, in which diversity is not (or is less) acceptable, and all other realms, in which diversity is relatively more acceptable. Most children made nontolerant judgments of divergent moral beliefs, reasoned that divergent moral beliefs (but rarely other divergent beliefs) result in harm or unfairness to others, and described characters who endorsed divergent moral beliefs (but rarely those endorsing other divergent beliefs) as bad. By contrast, children reasoned that it is acceptable (or at least more acceptable) for persons to endorse divergent beliefs bearing on realms other than morality, mostly because the content of those beliefs is a matter of personal choice.

When considered jointly, children's judgments of relativism and tolerance provide further evidence to the differentiations that young children make when they think about diversity. Children displayed three distinct views of diversity of belief. One view, that divergent beliefs are wrong or mistaken (i.e., not relative) and diversity of belief is unacceptable (NR–NT), was primarily associated with the moral realm

of belief. The opposite view, that beliefs are relative and diversity of belief is acceptable (R–T), was held mostly in regard to beliefs bearing on taste and ambiguous facts. A third view, that divergent beliefs are wrong or mistaken (not relative) but it is nonetheless acceptable for persons to endorse them (NR–T), was in the main associated with fact beliefs. Although it is interesting enough that children between the ages of 5 and 9 have three distinct views of diversity, the truly noteworthy findings were that only a minority (29%, 13%, and 3%, respectively, for 5-, 7-, and 9-year-olds) endorsed only one view of diversity across all realms of belief, and more than half (50%, 52%, and 63%, respectively, for 5-, 7-, and 9-year-olds) endorsed each of the three views.

Collectively, these findings indicate that children between the ages of 5 and 9 have multiple and well-differentiated perspectives on the relativity and acceptability of diverse beliefs—perspectives that are systematically associated with specific realms of thought. This pattern of results is consistent with the body of research indicating that children's thinking is organized in a domain-specific fashion (Carey, 1984; Damon, 1983; Gelman, 1988; Keil, 1986; Turiel, 1983). It does, indeed, make sense that young children who draw distinctions among different types of rights and wrongs and different types of categories when they make judgments about the world would also draw distinctions among different types of divergent beliefs about the world. This is not to say that the two tasks, making judgments about the world and making judgments about beliefs about the world, are identical. Conceptually, the latter (but not the former) requires that children understand that beliefs are representations of the world and, as such, can be accurate or inaccurate. As abundantly demonstrated by theory-of-mind research, 3-year-olds do not yet have such an understanding (which, incidentally, is why we did not include children younger than 5 in this study). Although it is unclear whether children acquire this understanding earlier for some domains than for others (Flavell et al., 1990) or simultaneously across domains (Flavell et al., 1992; Kalish, Weissman, & Bernstein, 2000), by the age of 5 children understand that persons form representations of all kinds of aspects of reality—representations that might or might not match reality. The findings from the present study suggest, furthermore, that those children think differently (and in a systematic way) about different kinds of divergent representations of reality.

The findings of the present study, on the other hand, are not consistent with depictions of young children as intolerant and rejecting of people with

whom they disagree (Enright & Lapsley, 1981) or as espousing the objectivist view that there can be only one valid belief about any issue (Clinchy & Mansfield, 1985; Mansfield & Clinchy, 1993). We suggest (as have others; Hofer & Pintrich, 1997; Kitchener, 2002; Pillow, 1999) that propositions that cast development in terms of a sequence of stages tend to disregard tacitly domain specificity. We propose, furthermore, that in overlooking the domain-specific differentiations made by young children, stage-related propositions end up underestimating children's abilities to appreciate diversity in belief.

Further support for this proposition comes from recent research on epistemological thinking that, by directly examining domain-specific differences, yielded findings that were remarkably consistent with our own. Kuhn et al. (2000), for example, found that epistemic thinking varies by domain. More specifically, absolutism (only one view can be right) was prevalent both in the realm of truths and in the realm of moral values, and these objectivist views lingered even as individuals expressed multiplist (both views could have some rightness) or evaluativist (one view can be more right than the other) positions in regards to the realms of personal preference and aesthetics. Furthermore, participants did not express objectivist views in regards to the realm of personal preference, and only 2 of 107 participants expressed objectivist views in reference to the four other realms tested (aesthetics, values, social truth, and physical truth). In spite of the different methods used, these findings were consistent with our own in that they, too, indicated that individuals make non-relative judgments about matters of fact and morality, and relative judgments about matters of personal preference and aesthetics. Similar domain-specific findings were reported by Mansfield and Clinchy (2002). Although neither Kuhn et al. nor Mansfield and Clinchy examined the thinking of children younger than 10, our data suggest that a generalized objectivist position across domains of knowledge would also be highly unlikely even among 5-year-olds. (In a second study, Kuhn et al., 2000, tested a small group of 21 children aged 7 to 8 for the sole purpose of examining the transition from absolutism to multiplism.)

The proposition of domain differences and the findings of domain differences can be couched within different interpretive frameworks. One possible conceptualization of domain specificity is that development across domains proceeds through the same sequence of stages (e.g., from objectivism to evaluativism), but the rate of development is specific to each domain. Kuhn et al. (2000), for example, set out to examine the hypotheses that absolutism declines with age in a systematic order across domains of judgment (beginning at the subjective end, with judgments of taste, and moving across the continuum, with judgments of aesthetics, judgments of moral values, and judgments of fact), and that the transition from multiplism to evaluativism proceeds in the reversed order. This framework, though attentive to domain differences, preserves the tacit endorsement of a stage model and, more important, the presumption that, across realms of thought, absolutism is less adequate than multiplism, which in turn is less adequate than evaluativism. In this framework, the earliest developmental phase is likely to be common to all domains (hence, perhaps, the expectation that young children would be objectivists across the board), and the developmental endpoint is likely to be the same across domains of knowledge (except for development in the realm of personal preference; see Kuhn et al., 2000, p. 314).

We have put forth a different view, namely, that children develop qualitatively different types of thinking about qualitatively different realms of knowledge. In our framework, relative judgments are neither more nor less developmentally advanced or desirable than nonrelative judgments in any general sense. Rather, their adequacy can be ascertained only within the context of the epistemological attributes of the specific system (or realm) of knowledge to which the judgment refers. Thus, for example, the judgment that only one view is right may be inadequate when made in reference to conflicts over matters of taste (e.g., whether chocolate is delicious or unpalatable) but adequate when made in reference to conflicts over moral principles (e.g., whether causing harm to people is right or wrong). Altogether, then, there is an appreciable and meaningful difference between the two frameworks. Whereas the concurrent expression of different types of judgments or positions is likely to be interpreted in the former framework as indicative of protracted development in some realms of thought, in our framework such a combination of judgments is expected, even among adults.

Even as we conclude that the evidence of this and other studies furnishes support for the proposition that children assume a domain-specific perspective with regard to belief diversity, we reiterate what we have stated at the outset, namely, that the domain-specific proposition does not preclude development. Indeed, several significant age differences emerged in our study. Recall that when compared with their slightly older peers, 5-year-olds in this study made fewer relative judgments, more nontolerant judg-

ments, and more negative descriptions of disagreeing characters, and they resorted more often to an NR–NT view of diversity. Given these findings, one might ask whether the conclusion that children make differentiated judgments about diversity might apply only to the 7- and 9-year-olds. Are these findings not indicative of a generalized negative view of diversity among the 5-year-olds—one that might be consistent with the depictions of young children as objectivists and generally intolerant? We suggest they are not. For although there were substantial differences between the thinking of the 5-year-olds and the thinking of the 7- and 9-year-olds, there are several ways in which the thinking of the 5-year-olds is nonetheless not uniformly negative or intolerant. Consider the following.

Although, when compared with their older peers, 5-year-olds made fewer relative judgments about beliefs bearing on taste and ambiguous facts, their judgments about those realms of belief differed significantly from their judgments about beliefs in the realms of morality and fact. Whereas their thinking about morality and facts was characterized by seamless uniformity (100% made nonrelative judgments about both moral and fact beliefs), their thinking about taste and ambiguous facts comprised substantial variability (42% of 5-year-olds made relative judgments about either taste or ambiguous facts, and 17% made relative judgments about both taste and ambiguous facts). Furthermore, although 5-year-olds made more negative judgments than their older peers about divergent beliefs and disagreeing characters, most 5-year-olds nevertheless judged that it was acceptable for persons to endorse beliefs bearing on facts (55%), taste (56%), and ambiguous facts (73%) that they themselves did not endorse. The justifications they offered also reflected systematic differentiations in their thinking. When reasoning about moral beliefs, 5-year-olds raised concerns with fairness and with the consequences to the welfare of others; when reasoning about fact beliefs, they were concerned with truth. Although 5-year-olds referred to concerns with personal choice and with the uncertain or subjective nature of reality less frequently than did their older peers, their references to those concerns were nonetheless systematically associated with beliefs bearing on ambiguous facts and taste. Finally, consider that, though less frequently than 7- and 9-year-olds, 5-year-olds did express an NR–T view of diversity in regard to certain realms of belief, thereby asserting that it is acceptable for others to endorse beliefs that they themselves judge to be wrong according to nonrelative criteria. Also indicative of the systematic differentiations in 5-year-

olds' thinking was that they did not endorse the NR–T view indiscriminately. Indeed, many 5-year-olds endorsed this view in regard to beliefs bearing on matters of taste (23%), ambiguous fact (41%), and fact (55%), but only a small number (6%) endorsed it in regard to moral diversity. Instead, the large majority of 5-year-olds (94%) held the view that moral beliefs are nonrelative and that divergent moral beliefs should not be tolerated—the same view upheld by a large majority of their older peers. We concluded, therefore, that the overall pattern of findings (as opposed to any one finding) bearing on the judgments made by 5-year-old participants is markedly inconsistent with the depiction of 5-year-olds as uniformly incapable of appreciating diversity of belief.

This is not to say that the differences between the views held by 5-year-olds and those held by 7- and 9-year-olds are not meaningful or do not bear explanation. Although the present study was not designed to answer questions about the sources of such differences (as in "why are they different?"), the data support some speculations better than others. One possibility is that children's understandings of belief diversity hinge on their developing understandings of the workings of the mind. One might expect that 5-year-olds, who are constrained by a false-belief understanding of the mind that renders divergent beliefs as mistaken or wrong, think of diversity in more negative terms. One might also expect that between the ages of 7 and 9, when children begin grasping the role of interpretation and conceiving of beliefs different from their own as alternative interpretations, they are more likely to have a relatively more positive view of diversity. This proposition, we underscore, is merely speculative as the relation between children's understandings of the mind and their judgments of relativism and tolerance cannot be inferred from perceived parallelisms or even from correlational data, and research that directly investigates the nature of this relation has not yet been attempted. The results of the present study—bearing on the lack of uniformity in children's thinking about different realms of diversity—suggest fairly conclusively that the relation between children's understandings of the mind and their judgments of diversity is not likely to take the form of one-to-one correspondence. Although we do think it likely that children's developing understandings of the mind inform their judgments about diversity (Wainryb, 2000; Wainryb & Ford, 1998), and we have underscored the need for more research at the juncture of theory of mind and moral development (Chandler, Sokol, & Wainryb, 2000; Wainryb, 2000), we also

think that it is unlikely that any one theory or conception of mind (whether it is a false-belief theory of mind or an interpretive theory of mind) translates directly into a particular (positive or negative, realist or relativist, tolerant or intolerant) view of diversity, given that 5- and 9-year-olds endorsed simultaneously all of those views.

Another, not mutually exclusive, possibility (also requiring further study) is that the differences between the views of 5-year-olds and those of 7- and 9-year-olds can be understood in terms of the conceptual development that takes place within realms of thought. Notably, 5-year-olds' thinking about divergent beliefs bearing on matters of taste and ambiguous facts is reminiscent of 5-year-olds' primitive understandings of conventionality. Before age 5, children tend to think of conventions not as arbitrary systems for coordinating social interactions but, rather, as descriptive uniformities in behavior (Turiel, 1983). The difficulties of young children in understanding the relativity of conventions has been amply documented (Smetana, 1981; Smetana & Braeges, 1990; Smetana et al., 1993). In young children's view, the very existence of conventions makes them binding. Therefore, they tend to judge that it is wrong to call teachers by their first name because ''I've never seen kids call teachers by their names,'' or that it is wrong to change an established seating arrangement in the classroom because ''we always sit in the same place when it's sharing time.'' Similarly, in the present study, 5-year-olds judged that only the belief that ice cream is yummy is right because ''it's really true, everyone loves ice cream,'' and that it would be wrong to endorse the opposite belief because ''what she says is not true, ice cream *is* yummy.'' Along with Turiel (1983), we suggest that the inconsistencies and contradictions in the thinking of 5-year-olds about social conventions or personal taste both foreshadow and constitute the basis of future conceptual development in each of these realms.

In discussing the developments between the ages of 5 and 9, we implicitly emphasized the accomplished understandings of 9-year-olds. This in turn raises questions about development beyond age 9. Previous research suggests that the pattern of findings in this study—where the realm of diversity dictates both whether beliefs are relative or nonrelative and whether belief diversity is more or less acceptable—is not confined to the thinking of young children. Research in sociocognitive development indicates that the distinction between relative and nonrelative realms of thought remains stable with age (e.g., Kalish, 1998; Turiel, 1998). Research also

suggests that tolerance of moral diversity continues to lag significantly behind tolerance of diversity in other realms, even among adolescents and young adults (Wainryb et al., 2001; Wainryb et al., 1998). We therefore suggest that the thinking of individuals beyond age 9 is likely to retain a domain-specific organization. This is not to say that 9-year-olds are fully competent adult thinkers or that there is no development beyond age 9.

Development might take two forms. One, alluded to briefly earlier, entails conceptual development that takes place within domains. Findings of this study suggest that conceptual development in the understanding of relativism is likely to underlie the age differences observed in children's views of diversity in the realms of personal taste and ambiguous facts. Conceptual development does not end at age 9; although the notion of relativism seems to be in place by then, so that 9-year-olds distinguish between beliefs that are relative and those that are not, further conceptual development within realms of thought might be associated with age-related changes in other aspects of older children's thinking about belief diversity.

Development might also be manifested in children's thinking about divergent beliefs bearing on multifaceted issues. Multifaceted issues pertain to more than one realm; examples are disagreements about whether it is right or wrong for a gay person to adopt (an issue combining conventional expectations and moral concerns with welfare and rights), for a parent to refuse medical treatment for her children on religious grounds (metaphysical and moral considerations), or for a coach to exclude certain children to increase the team's chances to win (moral and conventional considerations). We think it is likely that children of different ages make different judgments about the relativity and acceptability of multifaceted divergent beliefs. This is not merely because these issues are more difficult but, rather, because thinking about these issues involves patterns of interdomain correspondences and coordinations. To understand fully (or even predict) age-related differences in children's thinking about such issues, it is first necessary to ascertain how children think about diversity within each realm and how their thinking changes with age within each realm. Hence, in the present study we focused on children's thinking about divergent beliefs that were prototypical of each realm. Knowledge derived from the present study can inform the interpretation of any age-related differences that may arise in children's thinking about divergent multifaceted beliefs. Regardless of the forms that thinking about diversity

might take beyond age 9, the findings of this study strongly indicate that the investigation of the development of children's and adolescents' thinking about belief diversity must be grounded on a thorough consideration of the distinctive epistemological features of each realm of thought.

Before drawing final conclusions, we turn briefly to the question of the role of status in children's thinking about diversity of belief. Whereas, in this study the realm of belief was a central feature in children's organization of their thinking about diversity, the status of the character endorsing the divergent beliefs had a more limited role. Children's judgments concerning the relativity of beliefs did not vary with the status of the character endorsing the beliefs. Their judgments of the acceptability of divergent beliefs did vary (slightly, $p < .09$) but not across the board (i.e., children did not merely judge, for example, that all divergent beliefs are more acceptable when endorsed by an adult). Whereas children judged that divergent taste and fact beliefs were more acceptable when endorsed by an adult (83% and 79%, respectively) rather than by a child (73% and 64%, respectively), they judged that divergent moral beliefs were more acceptable when endorsed by a child (19%) rather than by an adult (10%). We did not make specific predictions regarding the direction of these differences, and it is difficult to make sense, in a post hoc fashion, of differences of such small magnitude. Instead, it seems more important to underscore that the differences in the acceptability of divergent beliefs that were due to the character's status are minor when compared with those that were associated with the realm of diversity. Indeed, divergent beliefs bearing on taste, facts, and ambiguous facts were generally viewed as acceptable regardless of who endorsed them, and divergent moral beliefs were generally viewed as unacceptable regardless of who endorsed them. It is also noteworthy that participants never referred to the characters' greater or lesser status when justifying their judgments, even though they had the opportunity to do so. Instead, their justifications referred exclusively to the nature of the beliefs (i.e., whether the beliefs were true, harmful, and so on).

These findings do not imply that the status of the person endorsing divergent beliefs is irrelevant to young children's thinking about diversity of belief. A character's status might be more relevant to children's thinking about diversity if the notion of status were couched in terms of specific roles and were given more or less institutional legitimacy. As an example, young children are likely to judge di-

vergent beliefs as more acceptable (and perhaps even as right) if the beliefs were endorsed by a status-bearing teacher during a lecture rather than (or more than) by a statusless student. As suggested by previous research (e.g., Laupa & Turiel, 1986; Tisak, 1986), however, even in that case children's judgments are likely to be informed also by the realm of the belief endorsed (e.g., divergent moral beliefs are likely to be judged as wrong and unacceptable even if endorsed by status-bearing teachers). We therefore conclude not that the status of the proponent of divergent beliefs should be dismissed as irrelevant to children's thinking about diversity of belief but that the role of status in children's thinking about diversity of belief is likely to intersect with the realm of diversity.

Multiple findings, then, jointly bespeak of the realm of diversity as being central to the organization of children's thinking about diversity. Although one does not expect young children to articulate epistemological or ethical theories, the present findings have demonstrated that their thinking about diversity is organized according to distinctions dictated by the realm of diversity. We have furthermore shown that this is true even in the case of the more rudimentary understandings displayed by 5-year-olds. In underscoring the importance of the realm of diversity, the present findings dispute the soundness of the dichotomy of values and facts; even young children understood that not all beliefs concerning values are relative and not all beliefs concerning facts are not relative, and they recognized that divergent beliefs may be acceptable even when they concern facts and unacceptable even when they concern values.

The present findings also challenge the practice of inferring children's tolerance from their judgments of relativity (or vice versa), as participants' judgments of tolerance and judgments of relativity did not mirror one another. In discussing the findings of their study, Kuhn et al. (2000) voiced the concern that Western societies' emphasis on tolerance might lead individuals to treat all contrasting views as matters of personal taste or opinion. In their words, "It is a deceptively simple step, down a slippery slope, from the belief that everyone has a right to their opinion to the belief that all opinions are equally right. Tolerance of multiple positions, in other words, becomes confused with discriminability among them" (pp. 325–326). Relying on separate assessments of children's thinking about the relative nature of beliefs and about the acceptability of divergent beliefs, the findings of the present study indicated that even young children distinguished between the notions of

tolerance and relativism. Indeed, even 5-year-olds endorsed the position that some beliefs are wrong according to nonrelative criteria but should be, nonetheless, tolerated. These findings, we argue, suggest that the concern expressed by Kuhn et al. might not be entirely justified; they also demonstrate that to understand adequately children's developing thinking about diversity it is necessary to assess concurrently their judgments of relativity and tolerance.

It is not uncommon for children in their early school years to witness and participate in disagreements of many kinds. During such episodes of disagreement and conflict, children are called on to articulate their own beliefs and to consider those of others, to determine the truth and validity of their own and others' beliefs, and to negotiate the differences among them. The ways children do that are likely to be associated in complex ways with the quality of their social interactions and relationships. Unquestionably, diversity of belief is ubiquitous in children's lives and has potentially significant consequences for their social and emotional development. Understanding diversity, however, does not appear to be a simple task. A premise of our study is that diversity of belief is not all of one kind; therefore, there is not one type of thinking or one type of judgment that is well suited to address all diversity of belief. Rather than learning to process all instances of diversity through a particular mode of thinking (such as a tolerant attitude), the developmental task faced by children is to learn to recognize the features that distinguish among different types of differences. Our findings suggest that children are already engaged in this task by age 5, long before their high school or college years. Our data also suggest that rather than attempting to teach children one attitude toward diversity of belief (the "right" attitude, the tolerant attitude, etc.), it might be more appropriate to encourage them to attend to the distinct features of different types of beliefs and to facilitate their attempts at endorsing different, seemingly conflicting, views with respect to different instances of diversity.

References

Astington, J. W., Harris, P. L., & Olson, D. R. (1988). *Developing theories of mind*. New York: Cambridge University Press.

Burr, J. E., & Hofer, B. K. (2002). Personal epistemology and theory of mind: Deciphering young children's beliefs about knowledge and knowing. *New Ideas in Psychology*, *20*, 199–224.

Carey, S. (1984). Are children fundamentally different kinds of thinkers and learners than adults? In S. Chipman, J. Segal, & R. Glaser (Eds.), *Thinking and learning skills* (Vol. 2, pp. 485–517). Hillsdale, NJ: Erlbaum.

Carpendale, J. I., & Chandler, M. J. (1996). On the distinction between false-belief understanding and subscribing to an interpretive theory of mind. *Child Development*, *67*, 1686–1706.

Chandler, M. J. (1987). The Othello effect: Essay on the emergence and eclipse of skeptical doubt. *Human Development*, *30*, 137–159.

Chandler, M. J., & Lalonde, C. (1996). Shifting to an interpretive theory of mind. In A. Sameroff & M. Haith (Eds.), *Reason and responsibility: The passage through childhood* (pp. 111–139). Chicago: University of Chicago Press.

Chandler, M. J., Sokol, B. W., & Wainryb, C. (2000). Beliefs about truth and beliefs about rightness. *Child Development*, *71*, 91–97.

Clinchy, B., & Mansfield, A. (1985, March). *Justifications offered by children to support positions on issues of "fact" and "opinion."* Paper presented at the meeting of the Eastern Psychological Association, Boston.

D'Agostino, R. B. (1971). A second look at analysis of variance on dichotomous data. *Journal of Educational Measurement*, *8*, 327–333.

Damon, W. (1983). The nature of social-cognitive changes in the developing child. In W. Overton (Ed.), *The relationship between social and cognitive development* (pp. 103–141). Hillsdale, NJ: Erlbaum.

Davidson, P., Turiel, E., & Black, A. (1983). The effect of stimulus familiarity on the use of criteria and justifications in children's social reasoning. *British Journal of Developmental Psychology*, *1*, 49–65.

Enright, R. D., & Lapsley, D. K. (1981). Judging others who hold opposite beliefs: The development of belief-discrepancy reasoning. *Child Development*, *52*, 1053–1063.

Flavell, J. H., Flavell, E. R., Green, F. L., & Moses, L. J. (1990). Young children's understanding of fact beliefs versus value beliefs. *Child Development*, *61*, 915–928.

Flavell, J. H., Mumme, D. L., Green, F. L., & Flavell, E. R. (1992). Young children's understanding of different types of beliefs. *Child Development*, *63*, 960–977.

Gaito, J. (1980). Measurement scales and statistics: Resurgence of an old misconception. *Psychological Bulletin*, *87*, 564–567.

Gelman, S. A. (1988). The development of inductions within natural kinds and artifact categories. *Cognitive Psychology*, *20*, 65–95.

Hofer, B. K., & Pintrich, P. R. (1997). The development of epistemological theories: Beliefs about knowledge and knowing and their relation to learning. *Review of Educational Research*, *67*, 88–140.

Hugues, C., & Dunn, J. (1998). Understanding mind and emotion: Longitudinal associations with mental-state talk between young friends. *Developmental Psychology*, *34*, 1026–1037.

Kalish, C. W. (1998). Natural and artifactual kinds: Are children realists or relativists about categories. *Developmental Psychology, 34*, 376–391.

Kalish, C. W., Weissman, M., & Bernstein, D. (2000). Taking decisions seriously: Young children's understanding of conventional truth. *Child Development, 71*, 1289–1308.

Keil, F. C. (1986). On the structure-dependent nature of stages of cognitive development. In I. Levin (Ed.), *Stage and structure: Reopening the debate* (pp. 144–163). Norwood, NJ: Ablex.

King, P., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults.* San Francisco: Jossey-Bass.

Kitchener, R. F. (2002). Folk epistemology: An introduction. *New Ideas in Psychology, 20*, 89–105.

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization* (pp. 347–480). Chicago: Rand McNally.

Komatsu, L. K., & Galotti, K. M. (1986). Children's reasoning about social, physical, and logical regularities: A look at two worlds. *Child Development, 57*, 413–420.

Kuhn, D., Amsel, E., & O'Loughlin, M. (1988). *The development of scientific thinking skills.* Orlando, FL: Academic Press.

Kuhn, D., Cheney, R., & Weinstock, M. (2000). The development of epistemological understanding. *Cognitive Development, 15*, 309–328.

Kuhn, D., & Weinstock, M. (2002). What is epistemological thinking and why does it matter? In B. K. Hofer & P. R. Pintrich (Eds.), *The psychology of beliefs about knowledge and knowing* (pp. 121–144). Mahwah, NJ: Erlbaum.

Laupa, M., & Turiel, E. (1986). Children's conceptions of adult and non-hierarchical authority. *Child Development, 57*, 405–412.

Lunney, G. H. (1970). Using analysis of variance with a dichotomous dependent variable: An empirical study. *Journal of Educational Measurement, 7*, 263–269.

Mansfield, A. F., & Clinchy, B. M. (1993, April). *Continuity and change in children's epistemologies from ages 4 to 10.* Poster presented at the biennial meeting of the Society for Research in Child Development, New Orleans, LA.

Mansfield, A. F., & Clinchy, B. M. (1997, April). *Toward the integration of objectivity and subjectivity: A longitudinal study of epistemological development between the ages of 9 and 13.* Poster presented at the biennial meeting of the Society for Research in Child Development, Washington, DC.

Mansfield, A. F., & Clinchy, B. M. (2002). Toward the integration of objectivity and subjectivity: Epistemological development from 10 to 16. *New Ideas in Psychology, 20*, 225–262.

Nicholls, J. G., & Thorkildsen, T. A. (1988). Children's distinctions among matters of intellectual convention, logic, fact, and personal preference. *Child Development, 59*, 939–949.

Nucci, L., & Lee, J. Y. (1993). Morality and personal autonomy. In G. Noam & T. Wren (Eds.), *The moral self* (pp. 123–148). Cambridge, MA: MIT Press.

Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years: A scheme.* New York: Holt, Rinehart, & Winston.

Pillow, B. H. (1999). Epistemological development in adolescence and adulthood: A multidimensional framework. *Genetic, Social, and General Psychology Monographs, 125*, 413–432.

Sabbagh, M. A., & Callanan, M. A. (1998). Metarepresentation in action: 3-, 4-, and 5-year-olds' developing theories of mind in parent–child conversations. *Developmental Psychology, 34*, 491–502.

Sigelman, C. K., & Toebben, J. L. (1992). Tolerant reactions to advocates of disagreeable ideas in childhood and adolescence. *Merrill-Palmer Quarterly, 38*, 542–557.

Smetana, J. G. (1981). Preschool conceptions of moral and social rules. *Child Development, 52*, 1333–1336.

Smetana, J. G., & Braeges, J. L. (1990). The development of toddler's moral and conventional judgments. *Merrill-Palmer Quarterly, 36*, 329–346.

Smetana, J. G., Schlagman, N., & Adams, P. W. (1993). Preschool children's judgments about hypothetical and actual transgressions. *Child Development, 64*, 202–214.

Tisak, M. S. (1986). Children's conceptions of parental authority. *Child Development, 57*, 166–176.

Turiel, E. (1983). *The development of social knowledge: Morality and convention.* Cambridge, England: Cambridge University Press.

Turiel, E. (1998). The development of morality. In W. Damon, (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology, Vol. 3: Social, emotional, and personality development* (5th ed., pp. 863–932). New York: Wiley.

Turiel, E., & Davidson, P. (1986). Heterogeneity, inconsistency, and asynchrony in the development of cognitive structures. In I. Levin (Ed.), *Stage and structure: Reopening the debate* (pp. 106–143). Norwood, NJ: Ablex.

Wainryb, C. (2000). Values and truths: The making and judging of moral decisions. In M. Laupa (Ed.), *New directions for child development: Rights and wrongs: How children evaluate the world* (pp. 33–46). San Francisco: Jossey-Bass.

Wainryb, C., & Ford, S. (1998). Young children's evaluations of acts based on beliefs different from their own. *Merrill-Palmer Quarterly, 44*, 484–503.

Wainryb, C., Shaw, L. A., Laupa, M., & Smith, K. (2001). Children's, adolescents', and young adults' thinking about different types of disagreements. *Developmental Psychology, 37*, 373–386.

Wainryb, C., Shaw, L. A., & Maianu, C. (1998). Tolerance and intolerance: Children's and adolescents' judgments of dissenting beliefs, speech, persons, and conduct. *Child Development, 69*, 1541–1555.

Walton, M. D. (2000). Say it's a lie or I'll punch you: Naive epistemology in classroom conflict episodes. *Discourse Processes, 29*, 113–136.