

See discussions, stats, and author profiles for this publication at:
<http://www.researchgate.net/publication/248960839>

Parenting Style and the Development of Moral Reasoning

ARTICLE *in* JOURNAL OF MORAL EDUCATION · SEPTEMBER 1999

Impact Factor: 0.69 · DOI: 10.1080/030572499103133

CITATIONS

31

DOWNLOADS

41

VIEWS

107

2 AUTHORS, INCLUDING:



Karl Hennig

University of Guelph

16 PUBLICATIONS 239

CITATIONS

SEE PROFILE



Parenting Style and the Development of Moral Reasoning

LAWRENCE J. WALKER & KARL H. HENNIG

University of British Columbia, Canada

ABSTRACT *This paper addresses the polarisation among theoretical perspectives in moral psychology regarding the relative significance of parents and peers in children's moral development and, in particular, the short shrift given the family context by cognitive–developmental theory. We contend that parents do play a significant role in this area of their children's development. Research findings from two studies are presented which indicate that parents' interaction styles, ego functioning and level of moral reasoning used in discussion are predictive of children's subsequent moral reasoning development. The findings also illustrate the role of affective factors, in contrast to the contemporary emphasis on moral rationality, and the relevance of real-life dilemmas, in contrast to the paradigmatic reliance on hypothetical dilemmas. Implications of these findings for our understanding of the role of parenting style in children's moral development and for further research are discussed.*

Competing theoretical perspectives in moral psychology have focused traditionally on different socialisation experiences in explaining children's developing moral maturity—with some focusing on vertical parent/child relationships and others focusing on horizontal peer relationships. Psychoanalytic theory, for example, emphasises the significance of early parent/child relationships in the development of the superego through the mechanism of identification and consequent internalisation by the child of parental values and standards. Social–learning theory, although less categorical than other approaches regarding the comparative salience of parents versus peers, emphasises conditioning and the power of models and so has focused more on parents' role in exhibiting and reinforcing appropriate behaviours. In contrast, cognitive–developmental theory has given short shrift to the family as a context for moral development and has instead focused on relationships with peers. Historically, theorists such as Piaget (1932/1977) and Kohlberg (1969) were perhaps reacting to the psychoanalytic and social–learning preoccupation with early parent/child relationships (Reimer, 1993), but they clearly regarded parents' role in children's moral development as at best inconsequential (simply part of the general social environment that provides “role-taking opportunities”), with the potential to be a deleterious constraint on development given parents' position of unilateral authority—a view reflective of these theorists' liberal ideological legacy. Piaget and Kohlberg held that peers were better able to provide the appropriate experiences that

promote moral development given their relatively equal social and cognitive–developmental status and the mutual and co-operative nature of their relationships. Thus, cognitive–developmental theory—an approach that has perhaps dominated the last generation of moral development theory and research—has overlooked the potential impact of parents as agents in their children’s moral development. It is our contention that this minimising of the parental role flies in the face of growing evidence to the contrary. Thus, one purpose of this study is to provide a response to this apparent cognitive–developmental bias against parents.

A second bias of the cognitive–developmental approach and indeed many of the currently influential theories in moral psychology is the emphasis on cognition and the relative neglect of the affective domain. Given the cognitive–developmental focus on reasoning as central to moral functioning, it is not surprising that the mechanism held to underlie development is cognitive disequilibrium, a state of cognitive conflict that challenges current ways of thinking and stimulates development toward more equilibrated reasoning (i.e. a higher developmental stage). This emphasis on the rational aspects of moral functioning and the neglect of the role of affect is clearly another bias (for an expanded discussion of this point, see Walker & Hennig, 1997). The affective domain is surely of significance when considering children’s moral development within the family context given the salience of the relationships involved, the intensity of the emotional dimension and the frequency of often difficult moral issues that are encountered. Thus, a second purpose of the present research is to explore both cognitive and affective factors in the impact of parents’ interactions with their children.

The research discussed here also represents a departure from the preferential use of hypothetical dilemmas in contemporary moral psychology. The paradigmatic assessment of moral reasoning development has been based on responses to hypothetical dilemmas and the paradigmatic approach to moral education has been open discussion of such dilemmas among peers. Kohlberg held that hypothetical dilemmas were optimal in these regards because they are conflictual for most people, they allow reflection without interference from vested opinions and they allow the probing of the limits of individuals’ reasoning; and certainly there is some evidence of their efficacy (Berkowitz, 1985). However, these dilemmas are often unfamiliar, irrelevant, constrained, lacking in contextual information and inhibiting of emotional involvement. In contrast, the use of real-life dilemmas arising from people’s own experience may provide increased relevance to everyday family interactions, tap affective processes better and yield new information about relationships to moral behaviour (Krebs *et al.*, 1997). Thus, a third purpose of the research presented here is to compare the efficacy of hypothetical and real-life dilemmas as vehicles for moral discussions within the family context.

Parenting Style and Children’s Moral Development—a first study

In order to set the context for the research that is presented here, it will be helpful to provide a brief synopsis of previous studies that have examined parent interaction style and children’s moral development. There are, for example, several studies

which indicate that the self-reported use of inductive discipline, authoritative parenting, affection, support, responsiveness and involvement have been associated with children's moral maturity (Hoffman & Saltzstein, 1967; Parikh, 1980; Hart, 1988; Speicher, 1992; Boyes & Allen, 1993). Similarly, behavioural ratings of parenting style have revealed that parental responsiveness and psychological differentiation are related to children's moral development (Holstein, 1972; Parikh, 1980; Dunton, 1989). More directly relevant is a study by Powers (1983, 1988) who examined the nature of parents' interactions when discussing a hypothetical moral dilemma with their adolescent. Powers devised the Developmental Environments Coding System (DECS), which codes every conversational turn for its function in the discussion, not only the cognitively challenging ones (which are significant, of course, in the cognitive–developmental perspective), but also ones that are affective in tone, either stimulating (e.g. support) or interfering (e.g. hostility). In Powers' study, parents' discussion styles were related to adolescents' level of moral development. It was found that adolescents' developmental level was predicted by parental support, but not parental cognitively stimulating behaviours.

As noted earlier, the major objective of the present research is to examine the role of parenting style in children's moral reasoning development. It extended the work of Powers and others in several respects. (a) The sample involved children of varying ages (6–16 years) and their parents, rather than a single age group of adolescents. (b) Families discussed not only a hypothetical moral dilemma, but also a real-life dilemma from the child's personal experience. (c) Parents' behaviour was not only coded for verbal interaction style (using the DECS), but was also coded for the level of moral reasoning they actually used with their child in the discussion (in order to assess the optimal stage disparity between parents and child). (d) Rather than relating parental interactions and moral reasoning to children's current level of development, we used these variables to predict children's subsequent moral development over a 2-year longitudinal interval. In other words, this study addressed the question: What is the nature of effective parenting within the context of moral discussions?

Participants

The initial sample was composed of 80 family triads (mother, father and child) with children drawn from four different grades (1, 4, 7 and 10) in order to provide a range of developmental levels. Only two-parent families were recruited, with only one child from each family targeted for participation. Families volunteered to participate in response to a letter sent home from school with students.

Procedure

Families came to the university to participate. After providing consent, each person first participated in an individual audio-recorded interview (of about 45–90 minutes) in which they responded to Kohlberg's Moral Judgment Interview (MJI; Colby & Kohlberg, 1987) and then they were prompted to recall a recent real-life moral dilemma from their personal experience.

Following the individual interview, family members reconvened in a larger room to participate in a video-recorded "family session" (averaging 20–60 minutes). First, they were asked to discuss, and attempt to reach consensus on, one of the hypothetical moral dilemmas from the MJI (to which they had individually responded in the interview). Secondly, the child was asked to describe his or her real-life moral dilemma and the family was then asked to discuss it, attempting to reach a consensus. (Children had been privately asked earlier if they would disclose their dilemma to their parents. Of the 80 children, only 17 refused, reducing the *N* for analyses to 63 families.)

In order to assess moral development over time, children were re-interviewed with the MJI 2 years later. Attrition over the longitudinal interval further reduced the sample to 61.

Scoring

Interviews and family discussion sessions were transcribed verbatim for scoring of both moral reasoning and verbal interactions.

Moral reasoning. The MJIs were scored for stage of moral reasoning according to the standard coding procedures (Colby & Kohlberg, 1987). Level of moral development was expressed in terms of the continuous weighted average score (WAS), which includes information regarding usage at all stages and is given by the sum of the products of the percent usage at each stage multiplied by the stage number (range = 100–500).

Both parts of the family session (hypothetical and real-life dilemma discussion) were also scored for individuals' stage of moral reasoning, again according to Colby and Kohlberg's (1987) manual but relying more on general stage structure definitions than particular critical indicators (since the manual is keyed to particular dilemmas and issues). Individuals' level of moral development in the two dilemmas of the family session was similarly expressed in WASs.

Inter-rater reliability for the scoring of the MJI and the family dilemma discussions was determined by the independent coding of 32 randomly selected interviews and 48 discussions. Reliability was $r = 0.92$ for the MJI, 0.94 for the hypothetical dilemma discussion and 0.97 for the real-life dilemma discussion.

Verbal interactions. Verbal interactions in the family session were coded from the transcripts using the DECS (Powers, 1983), which assigns a code to every conversational turn of each participant in the discussion, of which there are typically hundreds per session (this, then, is a micro-analytic approach). More than one code may be assigned to a conversational turn, but each code would refer to separate parts. The 25 codes of the DECS reflect the intended purpose of the speaker in relation to the discussion. For present purposes, these codes were grouped into six

conceptual (and one miscellaneous) categories. (Note that these categories have been modified somewhat from Powers' initial formulation, in particular to distinguish between operational and representational interactions; cf. Berkowitz & Gibbs, 1983.)

The present categories and the codes comprising each are: (a) *operational* (speeches that operate on the reasoning of another)—critique, competitive request, counter-consideration, concession, clarification (explanation or integration), competitive clarification; (b) *representational* (speeches that elicit or re-present the reasoning of another)—request, paraphrase, comprehension check; (c) *informative* (speeches that entail sharing of opinions)—opinion, competitive opinion, agreement, disagreement, request for change, intent for closure; (d) *supportive* (speeches that indicate positive affect and encouragement to participate)—encouragement (including listening responses), humour; (e) *cognitively interfering* (speeches that interfere with sustained and coherent discussion)—distracting, refusal, devalue task, distortion; (f) *conflictual* (speeches that indicate negative affect)—resist/threaten, hostility; and (g) *miscellaneous*—unclear, incomplete statements.

Each participant's verbal interactions were initially coded in terms of the 25 codes, later collapsing into the categories described above for analyses. Inter-rater reliability was assessed by the independent coding of 81 randomly selected dilemma discussions and was calculated in terms of category agreement. Inter-rater reliability was found to be acceptable, with Cohen's $\kappa_n = 0.87$ for the hypothetical dilemmas and 0.81 for the real-life dilemmas. Given the differing lengths of discussions both between and within families, analyses were conducted in terms of percentage use of each category of interactions rather than in terms of frequencies.

Results and Discussion

The presentation of the results here will focus on the relation of parental interactions and level of moral reasoning to the extent of children's moral development over the 2-year longitudinal interval (see Walker & Taylor, 1991, for other findings). Thus, the question was: What is the optimal style of discussion and what is the optimal moral stage disparity for facilitating children's moral reasoning development?

Although it would be possible to examine the relation between children's moral development and each parenting variable separately, such an approach would be of limited value given that the inter-relation among the parenting variables is important. For example, a critique of someone's reasoning has quite different meanings depending upon whether it occurs in a context that is generally encouraging and supportive versus one that is hostile and sarcastic. Thus, the statistical technique adopted here was hierarchical cluster analysis (HCA), a more holistic approach that generates different clusters (or profiles) representing meaningful patterns regarding these variables in combination (in this case, the six categories of parental verbal interactions and the disparity between parents and child in level of moral reasoning). Cluster analyses were conducted for each dilemma discussion separately (hypothetical and real-life) in order to allow comparison of these two types of dilemmas as vehicles for moral development. Also, since the context for the child in the family

session involved both the mother and the father and since no gender differences were found, their data were averaged to reflect the parental variables in general. Note that no standard interpretive procedure exists for determining how many clusters to retain from the clustering procedure. A balance must be found between maximising interpretability with a reasonable number of clusters and minimising the distance between adjacent cluster solutions in the agglomerative process.

Once the cluster groups for each dilemma discussion context had been derived using the HCA procedure, based on parental interactions and parent/child moral reasoning disparity, they were then used to predict children's moral development over the 2-year longitudinal interval (a change score, expressed in WASs). Differences in this criterion variable across cluster groups within each dilemma context were examined with Duncan's multiple-comparison tests (with $\alpha = 0.05$). Interestingly, significant differences in children's moral development across parental cluster groups were not found for the hypothetical dilemma discussion (despite the emphasis on discussion of hypothetical moral dilemmas in the traditional Kohlbergian moral education paradigm). Perhaps such a discussion, however thought-provoking and cognitively engaging, is less relevant to families and therefore less characteristic of their normal day-to-day interactions.

However, significant differences in children's moral development were found across parental cluster groups for the real-life dilemma discussion where there was an explicit focus on the child. The cluster analysis yielded seven clusters, two containing a single case each (although such atypical cases are interesting, their rarity precludes further statistical analyses). The scores for the clustering variables for the remaining five cluster groups, along with the change in children's level of moral development, are presented in Table I. The Duncan test comparing children's moral development across cluster groups revealed that the first two groups differed significantly from the fifth one (the other two groups did not differ from any other and thus are of less interest). Also note that caution needs to be exercised in interpreting these clusters given the unequal, and in some cases, small numbers.

The two clusters that were associated with minimal moral development in children share some similarities. The first cluster is characterised by parents who display highly operational and informative interactions, whereas the second cluster is characterised by parents who display highly informative, cognitively interfering and conflictual interactions. Note that the relatively low incidence of cognitively interfering and conflictual interactions does not mean that they have low impact. Indeed, when someone devalues another's ideas or is hostile (e.g. "That's a stupid thing to say!"), even just once, it is possible that the whole tone of the discussion could change considerably and inhibit the meaningful exchange of ideas. Operational interactions are those in which the child's reasoning is directly challenged; counter-considerations and critiques of the child's position are presented. In a context where the child is sharing a personal moral problem and the discussants are of considerably different power and knowledge, such high-level cognitive conflict may be perceived as antagonistic criticism and make the child defensive. Similarly, informative interactions involve simple sharing of information and perspectives and,

TABLE I. Scores for the clustering variables and for change in level of moral development in the real-life dilemma context

Cluster group	Clustering variables							Change in moral development
	Operational	Representational	Informative	Supportive	Cognitively interfering	Conflictual	Moral reasoning disparity	
1 (n = 10)	15.5%	23.0%	32.1%	20.6%	0.1%	0.1%	40.5	+ 20.4 ^a
2 (n = 9)	10.0%	30.7%	33.3%	15.2%	1.3%	1.2%	89.8	+ 28.7 ^a
3 (n = 25)	14.2%	35.6%	25.4%	14.8%	0.2%	0.0%	2.5	+ 41.6 ^{a,b}
4 (n = 11)	5.3%	48.8%	19.8%	17.6%	0.7%	0.9%	53.9	+ 50.5 ^{a,b}
5 (n = 4)	7.5%	45.4%	19.6%	21.3%	0.4%	0.0%	127.5	+ 66.8 ^b

Change scores for level of moral reasoning having the same superscript are not significantly different.

while seemingly neutral, in this context they may be regarded as “lecturing” and thus unhelpful.

The fifth cluster, which was associated with considerable moral development in children, was characterised quite differently—by parents who displayed highly representational and supportive interactions combined with a level of moral reasoning over a stage higher than that of their child. Representational interactions include eliciting the child’s opinion, asking clarifying questions, paraphrasing, and checking for understanding—reminiscent of what might be labelled a Socratic style of questioning. Supportive interactions, such as humour, praise, encouragement to participate and listening responses, set a positive tone for the discussion and for the relationship. The relatively large moral stage disparity between parents and child is consistent with Kohlberg’s claim that the +1 stage represents the optimal mismatch. Although parents were accommodating to the child’s level of moral reasoning (i.e. their level of moral reasoning in the family discussion was lower than their level in the individual interview), they were providing the stimulation of higher moral thinking.

In summary, then, this study revealed that parenting style is influential in children’s moral development, in contradistinction to the minimal role accorded parents by cognitive–developmental theory. The parenting style most conducive to children’s development can be encapsulated as involving supportive Socratic dialogue and Kohlbergian higher-stage moral reasoning. Secondly, the findings support the view that affective factors are salient in moral socialisation, in addition to cognitive ones. The relevance of the affective domain in the family context clearly contrasts with the cognitive–developmental model’s emphasis on cognition. Children’s moral development was hampered by parental hostility and conflict and was facilitated by parental support and encouragement. Third, the findings support the use of real-life dilemmas from people’s own experience, rather than an exclusive reliance on hypothetical dilemmas. Such real-life dilemmas are directly relevant to everyday moral living and more likely to activate emotional engagement. Further discussion of these findings can be found in the Conclusion, following the presentation of a second study of parental interactions.

Parenting Style and Children’s Moral Development—a second study

Although the first study provided a good demonstration of the type of parental interactions and moral reasoning that facilitate children’s moral development, it does have a number of limitations that prompt further exploration of this issue. (a) Given the small sample size, the interpretive nature of the HCA procedure and other design limitations, it seemed appropriate to conduct an at least partial replication of the study. Robinson and Levin (1997) have argued cogently that greater reliance needs to be placed on replication with independent samples than on statistical significance. (b) The moral discussions in the previous study involved family triads (two parents and child), making it impossible to determine to what extent parents’ interactions were directed at their child versus each other. It is probable that interaction styles vary considerably between dyadic and triadic contexts (McHale &

Cowan, 1996). In this second study, parent/child dyads will participate so that the nature of the parents' interactions can be more clearly delineated. (c) The real-life dilemma used in discussion was one identified by the child from any aspect of his or her life and, consequently, parents were often not directly implicated (e.g. those dealing with friendships). The nature of a moral discussion may vary depending on participants' personal investment in the conflict, and there is evidence that context is important in assessing interaction styles (Grotevant & Carlson, 1987). In this second study, the dilemma discussions will entail real-life moral conflicts in the parent/child relationship (one from the perspective of the parent, another from the perspective of the child), in addition to the discussion of a hypothetical moral dilemma. (d) One design limitation in the previous study was that the moral discussions in the family session were done in a fixed order: first the hypothetical dilemma, then the real-life one. This could explain some of the differences between dilemma contexts. In this second study, the order of dilemma discussions will be randomised. (e) In the previous study, the quality of the verbal interactions in the discussion was assessed by the DECS and although several meaningful findings were yielded, there is some concern that this system may not be adequately capturing the affective character of parents' functioning given that the method only detects direct verbal expressions of affect (either supportive or interfering). In this second study, the quality of the discussion was not only assessed by the DECS, with its micro-analytic analysis of the cognitive aspects of verbal interactions, but also by a more macro-analytic rating of parents' ego functioning using Haan's (1977; Haan *et al.*, 1985) measure of coping and defending ego processes. It is believed that this approach may tap the affective quality of parents' behaviour and personality better with its psychodynamic orientation than would the DECS with its cognitive-developmental orientation. (f) In the previous study, there was only a single 2-year retest of children's moral reasoning development. In this second study, children will be retested annually over a 4-year longitudinal interval to provide a more powerful and reliable measure of moral development.

Participants

The initial sample was composed of 60 family dyads (parent and child) with the children drawn from two age groups (Grade 5 and 10). Both single- and two-parent families were recruited, but with only one parent participating from each family (20 fathers and 40 mothers). Families volunteered to participate in response to a letter mailed to parents of students or in response to a newspaper advertisement.

Procedure

In many respects the procedure of this study resembles that of the previous one. Parent and child dyads came to the university to participate. After providing consent, they first participated in an individual audio-recorded interview (about 45–60 minutes) in which they responded to Kohlberg's MJI and they were then

prompted to recall an actual moral conflict in their relationship with the other person in the dyad.

Following the individual interview, they reconvened in another room to participate in a video-recorded "dyadic discussion session" (averaging 45–60 minutes). This session had three parts (with the order randomised) in which they discussed and attempted to resolve: (a) one of the hypothetical dilemmas from the MJI, (b) the child's moral conflict with the parent, and (c) the parent's moral conflict regarding the child.

In order to assess children's moral development over time, they were re-interviewed with the MJI four times over the subsequent 4-year longitudinal interval (i.e. on an annual basis). Attrition over the longitudinal interval reduced the sample to 58 children.

Scoring

Interviews and dyadic discussion sessions were transcribed verbatim for scoring of both moral reasoning and verbal interactions. The coding of ego functioning was done from the videotapes of the sessions.

Moral reasoning. The MJIs were scored for stage of moral reasoning according to the standard coding procedures (Colby & Kohlberg, 1987). Each part of the dyadic discussion session was also scored, as before, for individuals' stage of moral reasoning. Level of moral development was calculated in terms of WASs.

Inter-rater reliability for moral stage scoring was determined by the independent coding of 107 interviews and 144 discussions, selected randomly from the data of the larger project of which the present analyses are but a subset. Reliability was $r = 0.86$ for the MJIs and 0.84 for the dilemma discussions.

Verbal interactions. Parents' verbal interactions in the dyadic discussion session were coded as before from the transcripts using Powers' (1983) DECS. Because, in the previous study, the cognitively interfering and conflictual categories were both relatively rare and yielded similar findings, they were collapsed in the present study. Thus, the 25 DECS codes were grouped into five conceptual (and one miscellaneous) categories for analyses: operational, representational, informative, supportive, interfering and miscellaneous.

Inter-rater reliability was assessed by the independent coding of 120 dilemma discussions, drawn randomly from the larger dataset, and calculated in terms of category agreement. Reliability was found to be acceptable with Cohen's $\kappa_n = 0.85$. Again, analyses were conducted in terms of percentage use of each category of interactions rather than in terms of frequencies.

Ego functioning. Parents' level of ego functioning used in handling these conflicts was assessed using Haan's (1977; Haan *et al.*, 1985) 60-item Ego Q-Sort procedure.

The Q-sort was performed macro-analytically after viewing the videotape of each dilemma discussion. In the Q-sort, the rater placed the 60 descriptive items (e.g. "reacts sensitively to others' feelings" and "produces intellectualizations which seem self-serving") in a fixed nine-step distribution, ranging from *most uncharacteristic* of the person (-4) through *neutral* (0) to *most characteristic* ($+4$). The items assess 10 coping and 10 complementary defending processes. Coping processes reflect openness, flexibility, effective problem-solving, responsiveness, sensitivity and the appropriate expression of affect, whereas defending processes reflect rigidity, distortion, a closed-minded attitude to others' perspectives and feelings, mishandling and repression of emotions, and denial.

An overall ego functioning score was calculated as the difference between the average of the 10 coping processes and the 10 defending processes. Thus, a positive score indicates overall coping whereas a negative score indicates defending. Interrater reliability was determined by the independent coding of 84 dilemma discussions, drawn randomly from the larger dataset, and was calculated in terms of the overall ego functioning score. Reliability was found to be adequate, especially considering the highly subjective scoring, with $r = 0.81$.

Results and Discussion

The presentation of the results for this second study focuses on the relation of parental interactions, ego functioning and moral reasoning to the rate of children's moral development over the 4-year longitudinal interval (for other findings from this study, see Walker *et al.*, in press).

The analytical strategy here was as before, with cluster analyses being conducted separately for each of the three dilemma discussions (hypothetical, child's and parent's), using as the clustering variables the five categories of parents' verbal interactions (operational, representational, informative, supportive and interfering), parents' overall ego functioning and parent/child moral reasoning disparity. The HCA procedure creates discrete cluster groups based on the pattern of interrelationships among these variables. A four-cluster solution seemed most interpretable in each dilemma context.

Once the cluster groups for each dilemma discussion had been derived, they were then used to predict the rate of children's moral development over the 4-year longitudinal interval. Rather than using change scores to represent children's development, as was performed in the previous study, here we used straight-line growth curve analysis to derive a score to represent the rate of development over the five assessments of moral reasoning. The approach involves estimating a curve to represent each child's developmental trajectory over time, yielding a *slope* (indicative of rate of change in WASs per month over the longitudinal interval). This approach is preferable to simple difference scores or residualised change scores in representing development, especially when multiple assessments have been obtained (Willett, 1988). Differences in this criterion variable across cluster groups within each dilemma context were examined with Duncan's multiple-comparison tests (with $\alpha = 0.05$). These analyses revealed that significant differences in children's rate of

moral development across parental cluster group were not found for either the hypothetical dilemma discussion or the parent's dilemma discussion; however, they were revealed for the child's dilemma discussion where there is an explicit focus on the child's conflict. The scores for the clustering variables for the four parental cluster groups, along with the scores representing children's rate of moral development, are presented in Table II. The Duncan test comparing children's development across cluster groups revealed that the first and fourth groups differed significantly with slopes of 0.16 and 0.81, respectively (the other two groups did not differ from any other and thus are of little interest). The children in the first cluster group were essentially stagnant in their moral development, whereas children in the fourth group evidenced a high rate of growth (an overall increase of about half a stage).

The parents in the first group, where children evidenced minimal moral development, can be characterised as displaying a high level of operational and interfering interactions combined with poor ego functioning. On the other hand, parents in the fourth cluster group, where children evidenced substantial development, displayed a very different pattern, one apparently conducive to moral maturity, involving a high level of representational interactions and a low level of informative interactions combined with a relatively high level of moral reasoning (almost a stage and a half higher than the child's level). These findings are strikingly similar to those reported in the previous study, despite a number of methodological differences. The addition of the coding of ego functioning proved fortuitous in providing a better assessment of the affective quality of parents' socialisation behaviour and in meaningfully distinguishing cluster groups (with ego-defending parents inhibiting children's development). Again, the stimulation of higher-level moral reasoning, along with a gentle Socratic style of representational interactions, seems to readily promote moral development; whereas the more conflictual operational and interfering style of interactions provides an environment that retards growth.

Conclusion

The findings of these two studies challenge three biases of the cognitive–developmental model, biases that are also shared in one way or another by many other currently dominant theories in moral psychology: first, the neglect of the family context for moral development, focusing instead on peer and school contexts; secondly, the neglect of the affective domain in moral functioning, preferring to emphasise moral rationality; and thirdly, the neglect of “messy” real-life moral problems, relying instead on hypothetical scenarios.

The concordant findings from two studies provide clear evidence that the nature of parents' interactions, ego functioning and moral reasoning are predictive of children's moral development. Parents who engage in cognitively challenging and highly opinionated interactions, who are hostile, critical, and interfering, and who display poor ego functioning (defensiveness, rigidity, rationalizations, insensitivity, inappropriate emotional expression) provide a context that hinders children's opportunities to move toward more mature moral understandings. In contrast, effective parents are more child-centred and scaffold their child's development by eliciting the

TABLE II. Scores for the clustering variables and for rate of moral development in the child's dilemma context

Cluster group	Clustering variables							Ego functioning	Moral reasoning disparity	Rate of moral development (slope)
	Operational	Representational	Informative	Supportive	Interfering	Supportive	Interfering			
1 (<i>n</i> = 9)	11.2%	17.6%	52.6%	7.6%	3.2%	-	1.21	25.0	0.16 ^a	
2 (<i>n</i> = 22)	9.4%	23.9%	49.3%	11.7%	0.3%	3.17	3.17	27.3	0.38 ^{a,b}	
3 (<i>n</i> = 20)	3.3%	25.5%	62.1%	4.0%	0.7%	2.99	2.99	37.5	0.72 ^{a,b}	
4 (<i>n</i> = 7)	6.9%	42.8%	38.3%	7.8%	0.0%	1.98	1.98	147.6	0.81 ^b	

Slopes (representing rate of moral development) having the same superscript are not significantly different.

child's opinions, drawing out the child's reasoning with appropriate probing questions, and checking for understanding; all in the context of emotional support and attentiveness and with the challenging stimulation of more advanced moral reasoning. The present findings also illustrate that the field's preoccupation with moral cognition is too limiting, that affective factors are important components of effective moral socialisation. The findings also point to the importance of using real-life moral dilemmas that focus on the child's concerns and issues, ones that the child construes in moral terms and regards as significant.

In conclusion, it is appropriate to acknowledge the limitations of this research, not only in an attempt to properly constrain the implications to be drawn, but also as an impetus to further research. (a) The procedure involved parent/child discussions of moral dilemmas. Although such discussions are both typical and significant within families, they do not tap all relevant aspects of parent/child interactions and relationships; and further, our assessment of discussion styles, ego functioning, and moral reasoning represents a small range of the means of tapping these dimensions. (b) The index of children's moral development in these studies assessed reasoning only—belying our complaint regarding the field's emphasis on moral rationality—and did not tap other aspects of moral functioning such as moral emotions, behaviour, and virtue (Walker & Pitts, 1998). Further research is required to determine the impact of these parenting styles on children's moral emotions and character (Berkowitz & Grych, 1998). (c) Cluster analysis, although yielding meaningful profiles, is a highly interpretive statistical technique that frequently generates some clusters with small numbers, suggesting caution in interpreting the results. (d) The design of these studies was essentially correlational, albeit with longitudinal data; and so strong causal inferences are not warranted (e.g. it is plausible that children with different temperaments or personality elicit varying styles of parenting). However, several variables were identified here as predictive of children's moral development which could be examined further in intervention research designs. (e) Gender of parent or child was not a significant variables in these studies, although it has been in other research on family interactions (e.g. Allen *et al.*, 1994), implying the need for continued investigation. (f) The families in this research were fairly homogeneous—generally well-functioning, middle-class, predominantly Caucasian from a Canadian cultural context, with children in mid- to late-childhood and adolescence. Halstead (1999) has noted the implications for moral socialisation of the considerable diversity in the structure of families, providing a helpful reminder that families are heterogeneous and therefore that effective styles of parenting will also vary across contexts, including the developmental level of the child. Similarly, Rudy *et al.* (1999) have argued that an authoritarian parenting style which is seemingly maladaptive in an individualistic cultural setting, may be preferable in a collectivistic one where such parenting has different meanings for children and where the cultural values emphasise interdependence, co-operation and family harmony. Not only may parenting styles vary across cultures, but learning styles may, as well (Tharp, 1989). For example, a verbal/analytical style may be effective in some contexts (e.g. where moral rationality is valued), whereas a visual/holistic style may be effective elsewhere.

Acknowledgement

This research was supported by grants from the Social Sciences and Humanities Research Council of Canada. This article is based on research reported elsewhere by Walker and Taylor (1991) and Walker, Hennig and Krettenauer (in press).

Correspondence: Dr Lawrence J. Walker, Department of Psychology, University of British Columbia, Vancouver, BC, V6T 1Z4, Canada. e-mail: <lawrence.walker@ubc.ca>

REFERENCES

- ALLEN, J.P., HAUSER, S.T., BELL, K.L. & O'CONNOR, T.G. (1994) Longitudinal assessment of autonomy and relatedness in adolescent-family interactions as predictors of adolescent ego development and self-esteem, *Child Development*, 65, pp. 179-194.
- BERKOWITZ, M.W. (1985) The role of discussion in moral education, in: M.W. BERKOWITZ & F. OSER (Eds) *Moral Education: theory and application*, pp. 197-218 (Hillsdale, NJ, Erlbaum).
- BERKOWITZ, M.W. & GIBBS, J.C. (1983) Measuring the developmental features of moral discussion, *Merrill-Palmer Quarterly*, 29, pp. 399-410.
- BERKOWITZ, M.W. & GRYCH, J.H. (1998) Fostering goodness: teaching parents to facilitate children's moral development, *Journal of Moral Education*, 27, pp. 371-391.
- BOYES, M.C. & ALLEN, S.G. (1993) Styles of parent-child interaction and moral reasoning in adolescence, *Merrill-Palmer Quarterly*, 39, pp. 551-570.
- COLBY, A. & KOHLBERG, L. (1987) *The Measurement of Moral Judgment* (New York, Cambridge University Press).
- DUNTON, K.J. (1989) Parenting practices associated with their children's moral reasoning development, *Dissertation Abstracts International*, 49, p. 3306A (University Microfilms no. 8826133).
- GROTEVANT, H.D. & CARLSON, C.I. (1987) Family interaction coding systems: a descriptive review, *Family Process*, 26, pp. 49-74.
- HAAN, N. (1977) *Coping and Defending: processes of self-environment organization* (New York, Academic Press).
- HAAN, N., AERTS, E. & COOPER, B.A.B. (1985) *On Moral Grounds: the search for practical morality* (New York, New York University Press).
- HALSTEAD, J.M. (1999) Moral education in family life: the effects of diversity, *Journal of Moral Education*, 28, pp. 265-282.
- HART, D. (1988) A longitudinal study of adolescents' socialization and identification as predictors of adult moral judgment development, *Merrill-Palmer Quarterly*, 34, pp. 245-260.
- HOFFMAN, M.L. & SALTZSTEIN, H.A. (1967) Parent discipline and the child's moral development, *Journal of Personality and Social Psychology*, 5, pp. 45-57.
- HOLSTEIN, C.B. (1972) The relation of children's moral judgment level to that of their parents and to communication patterns in the family, in: R.C. SMART & M.S. SMART (Eds) *Readings in Child Development and Relationships*, pp. 484-494 (New York, Macmillan).
- KOHLBERG, L. (1969) Stage and sequence: the cognitive-developmental approach to socialization, in: D.A. GOSLIN (Ed.) *Handbook of Socialization Theory and Research*, pp. 347-480 (Chicago, Rand McNally).
- KREBS, D.L., DENTON, K.L. & WARK, G. (1997) The forms and functions of real-life moral decision-making, *Journal of Moral Education*, 26, pp. 131-145.
- MCHALE, J.P. & COWAN, P.A. (Eds) (1996) *New Directions for Child Development*, no. 74. *Understanding how family-level dynamics affect children's development* (San Francisco, Jossey-Bass).
- PAIKH, B. (1980) Development of moral judgment and its relation to family environmental factors in Indian and American families, *Child Development*, 51, pp. 1030-1039.
- PIAGET, J. (1977) *The Moral Judgment of the Child* (Harmondsworth, Penguin). (Original work published 1932.)

- POWERS, S.I. (1983) Family interaction and parental moral development as a context for adolescent moral development: a study of patient and non-patient adolescents, *Dissertation Abstracts International*, 43, p. 3753B (University Microfilms no. 83-08,501).
- POWERS, S.I. (1988) Moral judgement development within the family, *Journal of Moral Education*, 17, pp. 209–219.
- REIMER, J. (1993) The case of the missing family: Kohlberg and the study of adolescent moral development, in: A. GARROD (Ed.) *Approaches to Moral Development: new research and emerging themes*, pp. 91–101 (New York, Teachers College Press).
- ROBINSON, D.H. & LEVIN, J.R. (1997) Reflections on statistical and substantive significance, with a slice of replication, *Educational Researcher*, 26(5), pp. 21–26.
- RUDY, D., GRUSEC, J.E. & WOLFE, J. (1999) Implications of cross-cultural findings for a theory of family socialization, *Journal of Moral Education*, 28, pp. 299–310.
- SPEICHER, B. (1992) Adolescent moral judgment and perceptions of family interaction, *Journal of Family Psychology*, 6, pp. 128–138.
- THARP, R.G. (1989) Psychocultural variables and constants: effects on teaching and learning in schools, *American Psychologist*, 44, pp. 349–359.
- WALKER, L.J. & HENNIG, K.H. (1997) Moral functioning in the broader context of personality, in: S. HALA (Ed.) *The Development of Social Cognition*, pp. 297–327 (East Sussex, Psychology Press).
- WALKER, L.J., HENNIG, K.H. & KRETTENAUER, T. (in press) Parent and peer contexts for children's moral reasoning development, *Child Development*.
- WALKER, L.J. & PITTS, R.C. (1998) Naturalistic conceptions of moral maturity, *Developmental Psychology*, 34, pp. 403–419.
- WALKER, L.J. & TAYLOR, J.H. (1991) Family interactions and the development of moral reasoning, *Child Development*, 62, pp. 264–283.
- WILLETT, J.B. (1988) Questions and answers in the measurement of change, in: E.Z. ROTHKOPF (Ed.) *Review of Research in Education*, vol. 15, pp. 345–422 (Washington DC, American Educational Research Association).