

Children's Peer Relations and Social Behavior : A Review of Recent Research in Japan¹⁾

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Peer relations is one of the most active research fields in educational psychology and developmental psychology in Japan. The present article provides a brief-review of Japanese peer-relations studies in the last decade from 4 different perspectives: (1) formation and development of peer relations and friendships: formation of peer relations, social status, friendships during adolescence, and group culture, (2) social behavior and peer relations: internalizing problem behavior, externalizing problem behavior, and social skills, (3) cognitive aspects of peer relations: intent attribution, generation and estimation of response strategies, and goal setting and strategy choice, and (4) emotion regulation and peer relations. The research agenda of Japanese peer-relation studies is also discussed.

Key Words : social development, social behavior, social skills, social-information processing, emotion regulation

Peer relations is one of the most active research fields in educational psychology and developmental psychology in Japan. Children's maladjustment to peer relations, including bullying and school non-attendance, has become a serious problem, and, as a result, there has been a growing interest in peer relations studies.

Japanese research on peer relations started in the 1980's. During the 1990's, the field developed corresponding to the development of research in this area in the United States (Nakazawa, 1996).

The present author is a co-editor of a book, published in English, titled *Applied Developmental Psychology: Theory, Practice, and Research From Japan* (Shwalb, Nakazawa, & Shwalb, 2005), that introduces Western readers to Japanese psychologists' research. However, in the section of the book on peer relations, only three psychologists' studies could be included. The present article reviews and discusses more extensively peer relations research papers published in Japanese academic journals between 1996 and 2005.

Formation and Development of Peer Relations and Friendships

Formation of Peer Relations in Early Childhood

In the transition from home to kindergarten, young children meet peers and begin to form peer relations. Hsieh (1999) observed 4-year-olds' formation of peer relations from the time of their entrance into kindergarten²⁾. Children's prior acquaintances and friends became the anchors of their social networks in kindergarten. A "preferred friend", defined as one whom the child plays with more than 10% of the observed period, emerged two months after starting school, but this relationship lasted only one month. A "best friend", defined as one whom the child plays with more than 30% of the observed period, emerged 1.5 months after school entrance, and lasted at least 5 months. Relations with best friends were formed earlier and lasted longer than those with preferred friends.

Matsui, Muto, and Kadoyama (2001) observed 3-year-old kindergartners' behavioral strategies at the initiation of daily interactions with peers in the kindergarten for 2 years. During the first 4 to 9 months after school entrance, 3-year-olds used an imitative strategy (imitating peer's play). Subsequently, an

1) This paper was supported by a grant-in-aid for Scientific Research from the Japanese Ministry of Education, Culture, Sports, Science and Technology (General Study C # 16530419).

2) Japanese children enter kindergarten at 3 or 4 years of age.

implicit strategy (inviting others to join in play by explaining the content of the play, or expressing interest in entering play by asking about its content) became the primary strategy, and from 19 to 24 months after school entrance, 4-year-olds began to use an explicit strategy (inviting others or asking others to join by using verbal expression).

Kuramochi and Shibasaka (1999) also observed 4-year-old kindergartners' explicit peer group entry strategies over 2 years. The use of explicit strategies and smooth group entry was not observed during the first 4 months, but gradually increased after that. An explicit strategy made group entry successful early in kindergarten. But later, whether or not the host child wanted to play with the other child became a more important factor in group-entry success. These results showed that effective strategies for the initiation of peer interactions change with the deepening of peer relations in kindergarten.

Social Status in the Peer Group

While peer relations are deepening, a dominance hierarchy, or social status, becomes clear. Hsieh and Yamazaki (2001) observed 3-year-olds boys ($N=7$) in a kindergarten class. The dominant child behaved in a controlling way with the other children, and this brought about the positive results that he wanted.

Maeda (1998) conducted a three-year longitudinal study of the sociometric status of second and third graders. Stable sociometric status over 3 years was found in 54% of the children with popular status, 45% of those with rejected status, 43% of those with average status, and 8% of those with neglected status. The social status of elementary school children appears to be relatively stable and unchangeable.

Japanese customarily address others using their name, adding a courtesy title as the suffix. "Kun" is used as the suffix for boys, and "san" for girls. Mishima (2003) examined the relation between classroom social status and how third- through sixth-graders were addressed by their peers. Boys who were addressed with "kun" had higher social status, and girls who were addressed with "san" had lower social status. Elementary school children detected their peers' status implicitly, and reflected it when addressing their classmates.

Changing Friendships During Adolescence

When children become adolescents, the focus of their interpersonal relations shifts from parent-child relations to peer relations. In Okamoto and Uechi's (1999) study, junior high school and high school students answered questionnaires about their relations with their father, their mother, a same-sex friend, and an other-sex friend. Non-dependence on their parents and mutual understanding with their mother correlated positively with reliability and intimacy with their same-sex friend. Non-dependence on the same-sex parent correlated positively with reliability and intimacy with the other-sex friend. The quality of adolescents' peer relations depends on the quality of their parent-child relationship.

A three-stage hypothesis about the development of adolescents' peer relations was proposed by Hosaka (2005). In late childhood, fourth- to sixth-graders, especially boys, form a "gang-group". In this group, children have a feeling of unity with their same-sex friends through enjoying the same play. Then, in early adolescence, junior high school students, especially girls, form a "chum-group". In chum groups, children experience a feeling of unity with their friends because of using the same words to talk about shared interests. In mid-adolescence, high school students form a "peer-group". In these groups, adolescents recognize the differences among their friends and respect their individuality.

Enomoto (1999) examined this three-stage process in research in which a questionnaire was given to junior high school through university students. Peer relations of the male students started with play activities with friends, and then developed into a mutual-understanding activity. Peer relations of the female students started with an intimacy-seeking activity, which then developed into a closed activity, and finally became a mutual-understanding activity. Enomoto (1999) also examined the relation of these activities to emotion. All activities were positively correlated with the emotion of reliance and security. This suggests that adolescents' peer relations and friendships are based on reliance. Intimacy-seeking activity correlated with anxiety, and mutual-understanding activity correlated with independence.

These studies reveal that independence from par-

ents corresponds with the progress of peer relations. Adolescents' emotions toward their peers affect their activities with their peers.

The final stage of the peer relations/friendship is based on a recognition of individual differences and mutual respect.

Peer Relations and Group Culture

Children's peer relations depend not only on the development and internal abilities of each child, but also on the group context and culture to which the children belong.

Doing ethnographic research in nursery schools, Shibayama (2005) found the peer group's perception of a 4-year-old Chinese boy changed from "a boy who cannot understand Japanese" to "a selfish boy who cannot share toys with his peers". Their evaluation of him as selfish was based on the boy's behavior, which the other children felt deviated from the group culture in the nursery school. The classroom teachers and the boy's peers made this judgment jointly.

However, in Chinese nursery schools, teachers control the use of the toys. The Chinese boy in the Japanese nursery school did not understand that Japanese children are expected to share toys, because he had attended a Chinese nursery school before he came to Japan, and the Japanese children's cultural expectations were not explained to him. The effect of cultural rules is important, and, in this case, the boy's ignorance of those rules led to a negative perception of his adjustment in peer relations by both his teachers and his peers.

From the point of view of legitimate peripheral participation, Gyobu (1998) analyzed one 4-year-old nursery school boy whose teachers considered to be a problem child because he did not arrive at group activities on time. This negative view was shared by both his teachers and his peers, and his peers rejected him. However, some newcomers followed him and started to play with him. Then, his teachers' and his peers' negative view changed, and the boy's behavior was no longer seen as problematic.

Children's peer group adjustment depends on members' interpretation of their behavior in the context of the group culture.

Social Behavior and Peer Relations

Children's social behavior is both a cause and a result of their peer relations. This section focuses on the connections between children's peer relations, problem behavior, and social skills.

Internalizing Problem Behavior

Internalized problem behavior, such as loneliness, depression, low self-esteem, and withdrawal from peers, is a disorder internal to the child him/herself.

From his three-year longitudinal research with second- and third-graders, Maeda (1998) found that loneliness was greatest in children who had had a rejected status for three years (RR children) or who had changed from a rejected status to a neglected status (RN children), whereas loneliness was least in children who had had popular status for three years (PP children). He also found that first-year measures predicted children's loneliness three years later. The predictive measures were high scores on other children's negative nominations (dislike scores) and on peer-rated aggressiveness and withdrawal, and low scores on other children's positive nominations (likeability score) and on social competence.

Kuroda and Sakurai (2003), using path analysis, found that junior high school students' interpersonal goals influenced to their feelings of depression and fulfillment in peer relationships. Students who had high interpersonal experience/growth goals (the goal of developing oneself by acquiring interpersonal experience) and performance approach goals (the goal of obtaining positive personality evaluations in peer relations) had positive social skills with their friends. These skills had a very positive effect on their experiences with their friends, as a result of which the students showed lower depression and higher feelings of fulfillment toward peer relations. In contrast, students who had high performance avoidance goals (the goal of avoiding negative personality evaluations in peer relations) had lower positive social skills with their friends. As a result, those students had few positive experiences with their friends, and showed high depression and low feelings of fulfillment toward peer relations.

Externalized Problem Behavior and Bullying

Externalized problem behavior, such as aggression and delinquency, is a disorder that externalizes the child's feelings to peers. Aggressive behavior can be divided into sub-groups, including proactive-reactive aggression, and physical-relational aggression.

Hatakeyama and Yamazaki (2002), from observations on 5-year-old kindergarten children, reported that the boys used more proactive/overt aggression and instrumental/bullying aggression than the girls. The girls used more relational aggression than the boys. In particular, high social status girls used relational aggression toward low status girls.

Nakamichi and Nakazawa (2003) examined the relation of parenting style to the teacher-rated reactive and proactive aggression of kindergarten children (3-through 6-year-olds). Authoritarian fathers had more reactive aggressive children than did authoritative fathers and permissive fathers. When both parents had an authoritarian style, their children's reactive aggression was the highest, and when both parents had a permissive style, their children's reactive aggression was the lowest of all. Parenting style had no effect on proactive aggression.

Bullying is a social and educational problem involving aggression, in the classroom. Hatakeyama and Yamazaki (2003) detailed three properties of bullying: number of assailants, continuation of aggressive and rejecting behavior, and remorse toward victims. Their observations of a kindergarten class of 5-year-olds revealed that bullying with these three properties was already in existence at that grade level.

Okayasu and Takayama (2000) classified the bullying status and stress of junior high school students. There were many boys among physical and relational victims as well as among physical and relational bullies, and many girls among relational victims and relational bullies. Relational victims showed higher depression/anxiety, whereas physical and relational bullies showed higher irritation/anger and apathy, compared to students who were neither victims nor bullies.

Hosaka (2005) claimed that peer pressure for sameness is very strong in both gangs and chum groups. In these two types of groups, bullying is used to reinforce members' obedience to the group. Hosaka

(2005) contends that attending after-school cram schools and playing video games discourage children's group play, with the result that children enter chum groups not having had the experience of having participated fully in a gang group. They therefore lack the feeling of unity that comes from engaging in the same play with same-sex friends. As a result, the united feeling in chum groups is achieved by such children through bullying. Because these children tend to avoid interpersonal conflict with their friends, their peer group formation is late.

In that context, Toda (2005) has introduced the practice of peer support intervention in order to prevent bullying in schools.

Social Skills

Social skills and social status. Social skills are among the most important factors in the formation of peer relations. Kang (2003) observed the peer entry behavior of 5-year-old kindergartners. The popular children had more adaptive social skills, such as accepting others' requests and giving feedback to others, than did the rejected children. The rejected children had poor social skills. At group entry, they used obligation statements, and did not give informative statements.

Isobe and Sato (2003) used teachers' ratings to divide 4- and 5-year-olds into a physical aggressive group, a relational aggressive group, a physical and relational aggressive group, and a low aggressive group. The physical aggressive group had poor social skills. Although the relational aggressive group and the physical and relational aggressive group had poor self-control skills, they had good skills in making friends and assertion. To be able to engage in relational aggression, children need to have the ability to control their interpersonal relations. This may be a reason that they are very good at these skills.

Acquisition of social skills. How do children acquire social skills? Hatakeyama, Hatakeyama, and Yamazaki (2003) observed one 4-year-old girl's process of acquiring social skills. At first, she could not relate well to her peers, but later, she gradually began to play with them. During this process, she had the opportunity to interact with her peers in parallel play. Her teacher supported her social-skill acquisition by

skill modeling and direct instruction in the parallel play situation.

Togasaki and Sakano (1997) examined the relation among children's perception of their mothers' child-rearing style, their social skills at home and in the classroom, and sociometric peer nominations. Path analysis indicated that mothers' refusal attitudes lowered their children's social skills at home, and lower social skills at home influenced lower social skills in the classroom; lower social skills in the classroom affected lower social status in the class. These results suggest that children acquire social skills under the influence of their mothers, teachers, and peers.

Social skills training. Social skills training has been tried as an intervention for children who have internalized or externalized problem behavior. Sato, Sato, and Takayama (1998) used a skill-coaching method to train three socially withdrawn preschool children in a training room and also in field practice. Immediately after this intervention, the socially isolated behavior of the children decreased, and cooperative play behavior increased. At a one-year follow-up, the effects of the intervention were found to have been maintained in two of the three children.

Okamura and Sato (2002) trained one aggressive 4-year-old boy using skill coaching, and observed a decrease in his negative behavior toward his peers. This effect was observed to have been maintained 3 months later.

In order to prevent poor peer relations and promote good peer relations, classroom group skill training has been tried. For example, Fujieda and Aikawa (2001) trained a fourth-grade class in ten sessions (45 min. each) in social skills such as peer entry skills, asking skills, and refusing skills. There was no training effect on children's perceived social skills, but the teachers rated the children in the trained class as showing increments in their social skills, compared with a non-trained control class.

Emura and Okayasu (2003) trained seventh graders in 8 group-training sessions, but the training was not effective. Possible reasons for the ineffectiveness of these group training studies may have been the difficulty of determining the target training skills for these children as a group. There may have been a diversity

of motivations and basic skills among the class members.

Cognitive Aspects of Peer Relations

Interpersonal conflicts that children face in every day life can be considered to be a social problem (D'Zurilla & Goldfried, 1971 ; Spivack & Shure, 1974). From this point of view, we can examine the cognitive processes underlying social problem-solving behavior. The social-information processing model of Dodge (1986) has been the most influential model among the cognitive approaches (Nakazawa, 1996).

Intent Attribution in Social-Information Processing

Dodge's social-information processing model focuses on cognitions and attributions of others' intentions in interpersonal conflict situations, because intention attribution influences the subsequent selection of social behavior (Dodge, 1986).

Maruyama (1999) presented interpersonal conflict stories to 4-, 5-, and 6-year old children. There were two kind of stories: one in which a provocateur had hostile intention, and another in which the provocateur had no intention (and conflict was only an incidental accident). In the hostile intention story, children gave a high estimation to the enactment of a verbal assertive strategy. In the non-intention story, they gave a high estimation to the enactment of a passive strategy, such as avoidance. This result suggests that even young children are able to choose the response strategy corresponding to a provocateur's intention.

Suzuki, Koyasu, and An (2004) hypothesized that 3-, 4-, and 5-year-old children's cognition of others' intentions is derived from their cognitive ability to understand others' mind, which can be assessed by the "Theory of Mind" task. They examined the relation among scores on the "Theory of Mind" task, understanding of the provocateur's intention, and strategy choice. The children who answered correctly on the false-belief task of the "Theory of Mind" understood the provocateur's intention better than did the children who could not answer that task correctly. Among the 4-year-olds, approximately the same num-

ber of children gave the correct answer and the incorrect answer on the false belief task. The children who answered correctly understood the other's intention better than did those who answered incorrectly. Those answering correctly chose a more self-inhibitory strategy, and those answering incorrectly, a more aggressive strategy.

Aketa, Ichizen, Mimoto, and Oogai (2001), assessing elementary school children's social-information processing, found that in ambiguous conflict situations, girls attributed more favorable attributions than boys did, and hostile-attributed children tended to generate more aggressive responses.

Many studies have examined the effects of individual children's behavior, especially aggressiveness, on intent attribution. Kataoka (1997) reported that preschool children (6-year-olds) attributed more hostile intention when the situation involved heavy damage than when there was little damage. She also found that aggressive preschoolers attributed more hostile intentions than did non-aggressive preschoolers.

Sasaki (2000) also reported that aggressive preschool children attributed more negative intentions than did withdrawn children and neutral children.

Strategy Generation and Estimation in Social-Information Processing

In an interpersonal conflict situation, the kind of response generated is important. Many studies have examined the responses generated and adjustment.

Tonegawa and Shuto (1997), for example, found that preschool boys generated more aggressive strategies and fewer authority-dependent strategies than preschool girls did.

Nakazawa (1998) found that fifth graders generated more strategies than 3rd graders did, and girls, more than boys. Children who experienced many stressful events but generated few strategies showed behavior indicative of high levels of stress, such as apathy. Children who have poor social problem-solving strategies may fail to manage social conflict situations in their daily lives. Therefore, they may feel helpless and/or incompetent.

Sasaki (2000) found that aggressive preschoolers generated more unfavorable strategies. Aketa et al. (2001) also found that aggressive children generated

many aggressive strategies in provocative situations.

Studying the response choices of children of different behavioral types, Sakai and Yamasaki (2004) divided fourth- through sixth-graders into reactive-expressive aggression, reactive-inexpressive aggression, instrumental-relational aggression, and non-aggression groups. The children were asked to rate the effectiveness and outcome expectancy of 3 aggressive responses in interpersonal conflict situations. The possible types of response were: a reactive-expressive aggressive response ("shout at the peer who doesn't put a borrowed book back"), reactive-inexpressive aggression ("wait in front of that peer"), and proactive-relational aggression ("say bad things about that peer to other friends").

The instrumental-relational aggressive children responded that all three aggressive strategies were acceptable. They had outcome expectancies in which reactive-inexpressive aggression and proactive-relational aggression enabled them to get what they wanted. These results are the same as those found in a study by Perry, Perry, and Rasmussen (1986) that suggested that bullies had outcome expectancies such that aggression toward victims was effective for getting what they wanted.

Some researchers have examined environmental factors that influence children's strategy generation.

Tonegawa and Shuto (1997) found that preschool children who had a secure attachment to their father or mother generated many strategies, especially authority-dependent and self-control strategies. These strategies enabled them to avoid direct conflict with their peers.

Seo (2004) examined cultural differences in generated strategies, comparing Japanese and Korean elementary school children's generated strategies. The Japanese children generated more conflict-avoidant, cooperative, and dependent strategies than did the Korean children. The Korean children generated accordance strategies, assertive strategies, and non-assertive strategies. Overall, the Japanese children generated inter-coordinated strategies and avoided direct conflict, whereas the Korean children generated assertive strategies or one-sided concessionary strategies. Many cross-cultural studies have compared Japanese and Western cultures. However, little

research has been done comparing various East Asian cultures. One such study (Shwalb, Nakazawa, Yamamoto, & Hyun, 2003) is on fathering. This kind of cross-cultural comparison is also needed in peer relations research.

Goal Setting and Strategy Choice in Social-Information Processing

Building on prior research, Crick and Dodge (1994) added a new step, goal setting, to the social-information processing model.

The relation between goal setting and strategy choice has been examined, for example, by Hama-guchi (1996), who, using path analysis on data from fifth graders, found that provocative behavior by highly prosocial provocateurs led to friendship goal setting, positive emotional expression, high self-efficacy for enactment of non-punitive strategies, low self-efficacy for enactment of aggressive strategies, and a high possibility of non-punitive strategies. On the other hand, provocative behavior by high aggressive provocateurs led to assertive goal setting, negative emotional expression, high self-efficacy for enactment of negative assertive strategies, and a high possibility of negative assertive strategies. Provocative behavior of high aggressive provocateurs also led to low friendly goal setting, low estimation of the effectiveness of positive assertive strategies, low self-efficacy for enactment of non-punitive strategies, high self-efficacy for enactment of aggressive strategies, and a strong possibility of using aggressive strategies.

Matsuo and Arai (1997) also found that fifth- and sixth-graders who had hostile goals chose aggressive strategies, whereas those who had friendly goals chose cooperated strategies.

Comments on Social-Information Processing Research in Japan

Most of the research done in Japan on social-information processing has replicated and confirmed the model of Dodge (1986) and Crick and Dodge (1994). In intention attribution, aggressive children tend to attribute a provocateur's intention as hostile. Children's intention attribution determines their strategy generation and strategy choice. In particular, hostile attribution causes aggressive responses. In strategy

generation and estimation, older children generate more strategies than younger children, and girls more strategies than boys. Aggressive children generate aggressive strategies, and think that aggressive strategies are effective for them. In goal setting and strategy choice, children's goals determine their strategy choices. All of these results found in Japan are in accord with the results of research in the West, and verify the appropriateness of the model for Japanese (Crick & Dodge, 1994; Dodge, 1986).

One of the characteristics of Japanese social-information processing research has been a focus on pre-school children. Extensive research with pre-schoolers has been concerned with early social-information processing; asking, for example, when it is that children are able to know others' intentions, and whether differences among young children's attributions cause differences in their responses. Results from these studies have suggested that intentional attribution appears when children are around 4 years of age, and that the development of an understanding of others' minds is an important factor in this.

However, although there is fragmentary research on this topic with preschool, elementary school, high school, and university students, no published research has examined the relation between preschoolers' social-information processing and their subsequent social-information processing and behavior. To examine that question, longitudinal research is needed. Longitudinal research with a global framework would enable not only verification of the theory, but also the development of original findings by Japanese researchers.

A second characteristic of the Japanese research in this area relates to how social-information processing is assessed. The only published research that uses an original assessment by means of videotaped stimulus presentation is by Nakazawa (1996). Otherwise, researchers typically present picture stories to preschool children, and paper-and-pencil questionnaires with the picture stories to children older than school-entry age. As Aketa et al. (2001) described, these methods mainly assess the controlled processing of social information based on conscious thought and reflection, rather than automatic processing. It is, however, difficult to assess automatic processing. In real-life social-

information processing, people have to read and interpret others' momentary facial and behavioral expressions. As children's everyday social processing becomes automatic (Crick & Dodge, 1994), it is necessary to use a more realistic stimulus, such as the video presentation used by Dodge.

Emotion Regulation and Peer Relations

Emotion and its regulation in interpersonal conflict situations have an important role in the formation and stable maintenance of peer relations. Examination of the function of emotion regulation in social-information processing and social adjustment is currently the most active research field relating to children's social development (Dodge, 1991 ; Eisenberg, Spinrad, & Smith, 2004 ; Lemerise & Arsenio, 2000).

Comparing the hostile attributions before and after an emotional manipulation (winning or losing on computer games), Kataoka (1997) found that kindergartners who had been manipulated to have a negative mood increased their hostile attributions, whereas kindergartners who had been manipulated to have a positive mood did not.

Matsuo and Arai (1997) also found that fifth- and sixth-graders who felt high anger in interpersonal conflict situations chose aggressive responses. Kuki-yama (2004) found that the junior high school students who had a high anger mood showed high hostile attributions, assertive goals, and verbal aggressive responses, and low incidental attributions and friendship goals. The high fear/anxiety mood junior high school students showed high hostile attribution, attributions to their own responsibility, friendship goals, and avoidance responses.

Using path analysis, Nakazawa, Nakamichi, and Enomoto (2006) found that university students who had high trait anxiety showed high negative and low positive problem orientation. These orientations failed to achieve rational problem solving, and led to poor friendships. This research is thus supportive of the results of Dodge and Somberg (1987), who showed that negative mood leads to poor social-information processing.

Does high emotion regulatory ability lead to adaptive social-information processing, and social

adjustment? Choi and Arai (1998) asked to university students about the regulation of negative emotional expression. Students who had high scores on regulation of prosocial motives in a verbally damaging situation, or self-protective motives to avoid loss of face, had low satisfaction with friendships. Students who had higher scores on either of those two regulations or prosocial motives in a situation involving a friend's happiness and satisfaction had lower self-esteem scores.

Kuki-yama (2002) assessed university students' emotional competence for good friendship, and, using factor analysis, extracted the following six competencies: coping with negative emotional arousal, interpretation of situation, awareness of own emotional states, interest in others' emotions, empathy, and control of emotional expression. In general, higher emotional competencies were correlated with higher satisfaction with friendship and high self-esteem, with the exception that high control of emotional expression was correlated with low satisfaction with friendship and self-esteem. Coping with negative emotional arousal, interest in others' emotions, and empathy correlated with attribution to their own responsibility, friendship goal, assertive goal, and selection of assertive responses. These research (Choi & Arai, 1998 ; Kuki-yama, 2002) found that the students who used repression of negative emotional expressions had internal problems and poor adjustment with friends.

Nakazawa and Nakazawa (2004) assessed 5- through 7-year-old American children's emotional regulatory ability, using the Mood Induction Stimulus for Children : MISC (Cole, Zahn-Waxler, Fox, Usher, & Welsh, 1996). Children's facial expressions during MISC viewing were observed and rated as a measure of emotion regulatory ability. There was no relation between the ratings of emotional facial expression during negative mood-induced story viewing and the teachers' behavior ratings or peer nomination scores. However, rated emotional facial expressions during control scenes correlated positively with teachers' ratings of nonsocial and hyperactive/destructive behavior, and correlated negatively with teachers' prosocial ratings and peer nomination as most liked.

Children who have difficulty smoothing over negative emotions and thus carry negative emotions over

into non-emotional situations have poor behavior and poor peer relations. Regulation of the expression of negative emotions correlates positively with good adjustment in young children, but it is correlated with poor adjustment in university students.

This difference may come not only from the assessment method (one is from objective observation, and the other, from subjective self-rating), but also from developmental differences in the meaning of emotion regulation. In young children, differences in negative emotion regulation may reflect innate differences in temperament. Preschoolers with self-regulation have stable temperament and high social adjustability. In contrast, the negative emotion regulation of university students may originate from the suppression of emotion as a result of social learning. The university students may not be able to cope positively with negative emotions and can only suppress them. This then leads to maladjustment. Such developmental differences in the quality of emotion regulation are important.

An Agenda for Research on Peer Relations in Japan

In the research reports on peer relations that have been reviewed here, each study examined only one age group, such as preschool children, elementary school children, or adolescents. However, it is important to have a developmental hypothesis about peer relations, such as can be seen in Hosaka's (2005) research. A developmental approach enables the data from various studies to be connected and allows an empirical examination of the development of peer relationships from a global perspective. Longitudinal research is also needed in order to find developmental effects of environmental and individual factors such as parental early childrearing style, attachment relations, social-information processing, emotion regulation, internal and external problem behavior, social skills, and peer relations. Longitudinal research would connect the contexts of home and kindergarten, kindergarten and elementary school, and elementary school and secondary and tertiary educational systems. Were such studies to accumulate, we could expect great growth in the study of developmental psychopathology (Wenar & Kerig, 2000) in Japan.

For studies of social-information processing, I suggest two research orientations. From a theoretical standpoint, research is needed that examines the integrated model of social-information processing and emotion (Crick & Dodge, 1994; Dodge, 1991; Lemerise & Arsenio, 2000). As was described above in the section on emotion regulation and peer relations, this kind of research has just started in Japan.

From an applied perspective, the results of social-information processing studies should be used as interventions to promote children's social cognitive skills. There are many peer-relations problems in elementary and junior high schools in Japan. However, in most of the social information studies done in Japan, the research participants are preschoolers. We need research that would provide basic and applied knowledge to help resolve the interpersonal problems of school children, such as cognitive intervention studies that include empirical assessments of the effectiveness of the intervention.

Much of the Japanese research reviewed above replicated Western studies. However, children's peer relations are influenced not only by their own development and behavioral and cognitive ability, but also by peer group context and culture. Original studies are needed that examine culturally linked problems. For example, assertion and authority-dependent interpersonal conflict-solving strategies have been interpreted as effective strategies in some studies, but as ineffective strategies in others. Effectiveness may depend on the content of each strategy and the age at which children use it.

In addition, it is said that Japanese live in a collective society and, because of that, have an interdependent self (Kitayama, 2000). From this point of view, non-assertive or dependent behavior may not be inappropriate in Japan. It would be interesting to examine the effectiveness of these strategies in the Japanese cultural context. Active presentation of the results of such studies might lead to a new theory of peer relations applicable to Japanese, which, in addition, might contribute to the psychology of social development more generally.

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