Denham, S. A., Mason, T., Kochanoff, A., Neal, K., & Hamada, H. (2003). Emotional

development. In Dawn Cavalieri, (Ed.), International Encyclopedia of Marriage and Family

Relationships, Second Edition. New York: Macmillan.

Emotional competence, or its lack, is central to children's ability to interact

and form relationships with others. Broadly stated, aspects of emotional

competence developing through the lifespan include emotional expression and

experience, understanding emotions of self and others, and emotion regulation.

Children become increasingly emotionally competent over time; growing

evidence suggests that such emotional competence contributes to mental health

(Denham, 1998; Saarni, 1999). Much of the variation in children's emotional

competence derives from experiences within the family; we outline such

transactions and the developing competence they bolster or undermine.

Several theoretical perspectives aid delineation of children's emotional

competence. Some emphasize that emotions occur during events involving self

and environment, but that events must be cognitively appraised before an

emotion is experienced; this appraisal occurs with reference to one's goals

(Frijda, Kuipers, & ter Schure, 1989; Lazarus, 1991). The social constructivist

approach also highlights appraisal, but focuses on emotions as social products

based on cultural beliefs. Emotions and their expression vary markedly,

depending upon socialization within the particular culture (Saarni, 1990, 1998).

In contrast, Differential Emotions Theory asserts that emotions are innate,

present at birth in an already differentiated form, and eventually available when

needed (Izard, 1991; Tomkins, 1963). Oatley and Jenkins (1996) assimilate

these divergent theories, holding that emotions derive from a universal biological core that represents our common humanity, but also contain with an appraisal/semantic component that is largely a product of social construction.

Our theoretical position acknowledges the foregoing, from a functionalist standpoint: Although often considered from an individual differences perspective, skills of emotional competence are vividly played out in interaction and within relationships with others (Campos & Barrett, 1984). This interpersonal function of emotion is central to its expression and experience; conversely, social interactions and relationships are guided, even defined, by emotional transactions (Halberstadt et al., 2001). Emotions are inherently social, as follows: (1) others' behaviors often constitute antecedent conditions for emotions; (2) emotional expressiveness within a social setting is not only important information for oneself, but also for others; (3) one's expression of emotion may form the antecedent condition for others' experience and expression of emotions.

Within this theoretical framework, we focus on the emotional transactions between parent and child—the parents' contributions to emotional competence. Most studies of emotional development thus far have been conducted in the United States (Lutz, 1994). But parents socialize their children based on very specific cultural values and norms. As Matsumoto et al. (1988) and Mauro et al. (1992) note, Japanese and Americans often agree on the antecedents and evaluative components of emotional experience, and even on some more

primitive aspects of appraisal (e.g., "I was scared of the loud noise; that didn't

feel good; it seemed certain that something bad was about to happen; I had to

decide how to cope"). But they differ markedly on some of the more advanced

aspects of appraisal, including control of and responsibility for emotion (e.g., "I

do not have to/have to show this emotion," "I am/am not responsible for this

emotion").

Given these differences, the goals of emotion socialization surely differ

across the two cultures. We use examples from the experiences of Japanese

children and parents to exemplify such differences and thus broaden our view.

Our discussion focuses on three possible mechanisms of parents'

socialization of emotional competence: modeling, reactions to children's

emotions, and teaching about emotions (Halberstadt, 1991). Current theorizing

and empirical findings predict that parents' positive emotional expression and

experience, accepting and helpful reactions to children's emotions, and emphasis

on teaching about emotions in the family, contribute to young children's more

sophisticated emotional competence (Gottman et al., 1997; Tomkins, 1991).

Regarding modeling, children observe ever-present emotions of parents, and

incorporate this learning into their expressive behavior, often via affective

contagion. Through their expressiveness, parents also teach children which

emotions are acceptable in which contexts. Their emotional displays tell children

about the emotional significance of differing events, behaviors that may

accompany differing emotions, and others' likely reactions. Thus, parents'

expressiveness is associated with children's understanding of emotions as well as their expressiveness (e.g., Denham & Grout, 1993; Denham et al., 1994, 1997).

A mostly positive emotional family climate makes emotions more accessible to children. But several factors suggest possible negative contributions of parents' expressiveness to children's emotional competence. Though well-modulated negative emotional expression can contribute to children's understanding of emotion (Garner et al., 1994), parents' frequent and intense negative emotions may disturb children, making emotional learning more difficult (Denham, 1998). Further, parents whose expressiveness is generally limited impart little information about emotions to their children.

Parents cultivate some emotional expressions, but not others (Shiraev & Levy, 2001). Western cultures urge children to separate self from others and express themselves, but many non-Western cultures view people as fundamentally connected, with the goal of socialization being the alignment of one's actions and reactions with others' (Kitayama & Markus, 1994). Thus, in Japan, the public display of emotions is mostly discouraged because it is seen as disruptive, leading us to expect Japanese parents to model mostly low intensity emotions.

Moreover, there would be a qualitative difference in the emotions modeled. Valued emotions accompanying interdependence–friendliness, affiliation, calmness, smoothness, connectedness–would be most available for observation by Japanese children. In contrast, anger, regarded as extremely

negative in Japan because it disturbs interdependence, would be modeled less

(Markus & Kitayama, 1994). Research on these unique aspects of socialization

of emotion in Japanese families, however, remains to be performed.

Parents' contingent reactions to children's emotional displays are also

linked to children's emotionally competent expression, experience,

understanding, and regulation of emotions. Contingent reactions include

behavioral and emotional encouragement or discouragement of specific emotions

(Tomkins, 1991).

Parents who dismiss emotions may punish children for showing emotions,

or they may want to be helpful, but ignore their child's emotions in an effort to

"make it better" (Denham et al., 1994). In emotion-evoking contexts, children

who experience such negative reactions have more to be upset about–not only

their emotion's elicitor, but also parents' reactions (Eisenberg et al., 1998, 1999).

Positive reactions, such as tolerance or comforting, convey a very

different message–that emotions are manageable, even useful (Gottman et al.,

1997). Good emotion coaches, at least in the US, accept children's experiences

of emotion and their expression of emotions that do not harm others; they

empathize with and validate emotions. Emotional moments are seen as

opportunities for intimacy (Eisenberg & Fabes, 1994; Eisenberg et al., 1996,

1999; Gottman et al., 1997).

Japanese parents' reactions to children's emotions differ from US parents',

although not at every age or in every situation (Kanaya et al., 1989). In

general, US parents see expression of emotions as legitimate and part of healthy

self-assertion. In contrast, Ujiie (1997) notes that <u>inhibitory self-regulation</u> (e.g.,

obedience, cooperation, interacting empathically), and <u>acquisition of good</u>

<u>manners </u>(control of impulses/desires, knowledge of what is permitted) are

typical Japanese parenting goals. Thus, Japanese parents react most positively

to children's suppression of emotion and demonstration of empathy; Zahn-

Waxler et al. (1996) note that Japanese mothers encouraged emotional

expression less than their American counterparts.

Socializers' tendencies to discuss emotions, if nested within a warm

parent-child relationship, assist the child acquiring emotional competence. Thus,

parents directly teach their children about emotions, explaining its relation to an

observed event or expression, directing attention to salient emotional cues, and

helping children understand and manage their own responses (Denham et al.,

1995).

Parents who are aware of emotions and talk about them in a

differentiated manner (e.g., clarifying, explaining, rather than "preaching") assist

their children in experiencing and regulating their own emotions (Denham &

Grout, 1992; Eisenberg et al., 1998; Gottman et al., 1997). Children of such

parents gradually formulate a coherent body of knowledge about emotional

expressions, situations, and causes (Denham et al., 1992; 1994; Dunn et al.,

1991).

Emerging research suggests that Japanese mothers also talk to their

preschoolers about emotions (Clancy, 1999; Kojima, 2000; Sonoda & Muto,

1996). They use emotion language for similar reasons as American mothers—to

instruct their children, as young as 2 years old, about emotional meanings, to

negotiate, to explain the feelings of one sibling to another. What differs is the

content of their conversations, which focus on aspects of emotion relevant for

Japanese culture (Saarni, 1998).

Thus, positive elements of emotion socialization seem clear, although their

specific content and instantiations differ across cultures. Further, there is some

evidence that parents' support of one another also helps to ensure such positive

elements (Denham & Kochanoff, in press). But do beneficial aspects of parents'

socialization of emotion differ across children's ages, or across parents?

Although much more research is needed (Kochanoff, 2001), we predict that

these socializing techniques would occur across development and parents, albeit

with different emphasized emotions, and different aspects yielding positive child

outcomes. In part, however, these questions require an elucidation of children's

changing skills of emotional competence, to which we now turn.

Expression and Experience of Emotions

A key element of emotional competence is emotional expressiveness, the

sending of affective messages. These emotions must be expressed in keeping

with one's goals, in accordance with the social context; the goals of self and of

others must be coordinated. Thus, emotional competence includes expressing

emotions in a way that is advantageous to moment-to-moment interaction and relationships over time.

First, emotionally competent individuals are aware that an affective message needs to be sent. But what affective message should be sent, for successful interaction? Children slowly learn which expressions of emotion facilitate specific goals. Second, children also come to determine the appropriate affective message, one that "works" in the setting or with a specific playmate. Third, children learn how to send the affective message convincingly. Method, intensity, and timing of an affective message are crucial to its meaning, and eventual success or failure. When real affective messages are inappropriate (e.g., situationally but not contextually relevant, or irrelevant), "false" messages must be managed.

After preschool, children learn that their goals are not always met by freely showing their most intense feelings. For example, gradeschoolers regulate anger due to negative consequences they expect in specific situations or from specific persons (Zeman & Shipman, 1996). Along with the "cool rule" that mandates more muted emotions within most social settings, older children's emotional messages can be more complex, with more blended signals and better-differentiated expressions of "social" emotions. Much of the new ability to more clearly express and experience guilt, pride, and shame is buttressed by comprehension of responsibility and other norms (Olthof et al., 1989).

These general tenets and developmental progression of competent

experience and expression of emotion may be universal. Large differences

between cultures are seen, however, in emotions expressed. For example,

Japanese preschoolers showed less anger and distress in conflict situations than

American children, even though the two groups' prosocial and conflict behaviors

did not differ (Zahn-Waxler et al., 1996). These differences fit the Japanese

taboo on public negative emotions (Nakamura et al., 1990).

<u>Understanding Emotions</u>

Emotion knowledge predicts later social functioning, such as social

acceptance by peers (Denham, 1998). By preschool, most children can infer

basic emotions from expressions or situations, and understand the consequences

of these emotions. Preschoolers tend to have a better understanding of happy

situations compared to those that evoke negative emotions (Fabes et al., 1991).

They gradually come to differentiate among the negative emotions, and become

increasingly capable of using emotion language (Fabes et al., 1988).

Furthermore, young children begin to identify other peoples' emotions, even

when they may differ from their own (Denham, 1986).

Grade school children become more aware of emotional experience,

including multiple emotions, and realize that inner and outer emotional states

may differ. By middle school, children comprehend the time course of emotions,

display rules associated with emotional situations, and moral emotions. They

now have an adult-like sense of how different events elicit different emotions in

different people, that enduring patterns of personality may impact individualized

emotional reactions (Gnepp, 1989).

These general tenets of competent emotion knowledge seem similar for

Japanese children. For example, even 2-year-olds use some emotion language,

and by the end of the preschool period, their understanding of emotion language

appropriate to their culture is acute. They begin to understand dissemblance of

emotion (Matsuo, 1997; Sawada, 1997). As in American research, however,

there is a relative dearth of research on older children.

Emotion Regulation

Emotion regulation is necessary when the presence or absence of

emotional expression and experience interfere with a person's goals (Thompson,

1994). Negative or positive emotions can need regulating, when they threaten

to overwhelm or need to be amplified. Children learn to retain or enhance those

emotions that are relevant and helpful, to attenuate those that are relevant but

not helpful, to dampen those that are irrelevant; these skills help them to

experience more well-being and maintain satisfying relationships with others.

Early in the preschool period, much of this emotion regulation is

biobehavioral (e.g., thumbsucking), and much is supported by adults. Important

cognitive and attentional foundations of emotion regulation contribute to the

changes observed in emotional competence from preschool to adolescence

(O'Neil & Parke, 2000). Preschoolers gradually begin to use independent coping

strategies for emotion regulation, and gradeschoolers refine these strategies—

problem solving, support-seeking, distancing, internalizing, externalizing, distraction, reframing/ redefining, cognitive "blunting," and denial.

More than preschoolers, older children are aware of the multiple strategies at their command, and know which are adaptive in specific situations (Saarni, 1997). Older children use more cognitive and problem-solving, and fewer support-seeking, strategies. Adolescents appraise the controllability of emotional experiences, shift thoughts intentionally, and reframe situations, to reach new solutions (Saarni, 1999).

Applications

How can parents become skilled at the emotion socialization techniques appropriate to their culture? In the U.S., many parent programs exist to foster children's social-emotional outcomes. Most focus on older children already showing difficult behavior and needing assistance in regulating emotions and solving interpersonal problems (e.g., Webster-Stratton, 1994). This literature describes remedial steps toward guiding children to exhibit self-control and develop positive social skills; emotion socialization techniques are not central.

Although even the best prevention programs also usually fail to address emotion socialization directly (e.g., Cowan & Cowan, 1998; Olds et al., 1998; Shure, 1993), parental instruction on emotional competence could be especially promising and effective as a preventive approach, aimed at parents of young children or even parents-to-be. A few programs do highlight such techniques, instructing parents on the importance of an emotion-friendly family climate and

their role as emotional socializers for young children (e.g., Elias et al., 1999; Greenberg et al., 1998; Gottman, 1997; Shapiro, 1997;). We recommend more specific attention to the necessity of emotional competence and to the emotion socialization techniques most likely to contribute to it, both in families and daycares and schools.

Conclusion

We know much about children's emotional competence and how it is fostered. But much remains to be learned, including the queries noted earlier. More detail is necessary about emotional competence, its socialization and contribution to social success and well-being, after preschool. Finally, the field needs to be broadened to include emotional competence and its socialization in nonwestern cultures.

References

Campos, J. J., & Barrett, K.C. (1984). Toward a new understanding of emotions and their development. In C. E. Izard, J. Kagan, & R. B. Zajonc (Eds.), <u>Emotions, cognition, & behavior</u> (pp. 229-263). New York: Cambridge University Press.

Clancy, P. M. (1999). The socialization of affect in Japanese mother-child conversation. <u>Journal of Pragmatics, 31,</u> 1397-1421.

Cowan, P. A., & Cowan, C. P. (1998). Parenting interventions: A family systems perspective. In I. E. Siegal & K. A. Renninger (Eds.), <u>Handbook of child psychology: Vol. 4 Child Psychology in practice </u>(5 ed., Vol. 4, pp. 3-72). New York: John Wiley and Sons, Inc.

Denham, S. A. (1986). Social cognition, social behavior, and emotion in preschoolers: Contextual validation. <u>Child</u> <u>Development</u>, <u>57</u>, 194-201.

Denham, S. A. (1998). <u>Emotional development in young children</u>. New York: Guilford.

Denham, S. A., Cook, M. C., & Zoller, D. (1992). "Baby looks <u>very</u> sad": Discussions about emotions between mother and preschooler. <u>British</u> <u>Journal</u> <u>of</u> <u>Developmental</u> <u>Psychology</u>, <u>10</u>, 301-315.

Denham, S. A., & Grout, L. (1992). Mothers' emotional expressiveness and coping: Topography and relations with preschoolers' social_emotional competence. <u>Genetic, Social, and General Psychology Monographs</u>, <u>118</u>, 75-101.

Denham, S. A., & Grout, L. (1993). Socialization of emotion: Pathway to preschoolers' emotional and social competence. <u>Journal of Nonverbal Behavior, 17</u>, 205-227.

Denham, S. A., & Kochanoff, A. T. (in press). Parental contributions to preschoolers' understanding of emotion. <u>Marriage & Family Review</u>.

Denham, S. A., Mason, T., & Couchoud, E. A. (1995). Situational contributors to preschoolers' responses to adults' sadness, anger, and pain. <u>International Journal of Behavioral Development, 18,</u> 489-504.

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental contributions to preschoolers' emotional competence: Direct and indirect effects. Motivation and Emotion, 21, 65-86.

Denham, S. A., Zoller, D., & Couchoud, E. A. (1994). Socialization of preschoolers' understanding of emotion. Developmental Psychology, 30, 928-936.

Dunn, J., Brown, J. R., & Beardsall, L. (1991). Family talk about feeling states and children's later understanding of others' emotions. Developmental Psychology, 27, 448-455.

Eisenberg, N., Cumberland, A, & Spinrad, T. L. (1998). Parental socialization of emotion. Psychological Inquiry, 9, 241-273.

Eisenberg, N., & Fabes, R. A. (1994). Mothers' reactions to children's negative emotions: Relations to children's temperament and anger behavior. Merrill-Palmer Quarterly, 40, 138-156.

Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. Child Development, 67, 2227-2247.

Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I., Murphy, B. C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. Child Development, 70, 513-534.

Elias, M. J., Tobias, S. E., & Friedlander, B. S. (1999). Emotionally intelligent parenting. New York: Harmony Books.

Fabes, R. A., Eisenberg, N., McCormick, S. E., & Wilson, M. S. (1988). Preschoolers' attributions of the situational determinants of others' naturally occurring emotions. Developmental Psychology, 24, 376-385.

Fabes, R. A., Eisenberg, N., Nyman, M., & Michealieu, Q. (1991). Young children's appraisal of others spontaneous emotional reactions. Developmental Psychology, 27, 858-866.

Frijda, N. H., Kuipers, P. & ter Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. Journal of Personality and Social Psychology, 57, 212-228.

Garner, P. W., Jones, D. C., & Miner, J. L. (1994). Social competence among low-income preschoolers: Emotion socialization practices and social cognitive correlates. Child Development, 65, 622-637.

Gnepp, J. (1989). Children's use of personal information to understand other people's feelings. In P. Harris & C. Saarni (Eds.), Children's understanding of emotion (pp. 151-177). Cambridge: Cambridge University Press.

Greenberg, M.T., Kusché, C., & Mihalic, S.F. (1998). Blueprints for Violence Prevention, Book Ten: Promoting Alternative Thinking Strategies (PATHS). Boulder, CO: Center for the Study and Prevention of Violence.

Gottman, J. M. (1997). Raising an emotionally intelligent child. New York: Simon & Schuster.

Gottman, J. M., Katz, L. F., & Hooven, C. (1997). Meta-emotion: How families communicate emotionally. Mahwah, NJ: Lawrence Erlbaum Associates.

Halberstadt, A. G. (1991). Socialization of expressiveness: Family influences in particular and a model in general. In R. S. Feldman & S. Rimé, (Eds.), Fundamentals of emotional expressiveness. (pp. 106-162). Cambridge: CUP.

Halberstadt, A., Denham, S. A., & Dunsmore, J. (2001). Affective social competence. Social Development, 10, 79-119.

Izard, C. E. (1991). The psychology of emotions. New York: Plenum.

Kitayama, S., & Markus, H. R. (1994). Introduction to cultural psychology and emotion research. In S. Kitayama & H. R. Markus (Eds.), Emotion and culture: Empirical studies of mutual influence. Washington, DC: American Psychological Association.

Kanaya, Y., Nakamura, C., & Miyake, K. (1989). Cross-cultural study of expressive behavior of mothers in response to their 5-month-old infants' different emotion expression. Research and Clinical Center for Child Development, 11, 25-31.

Kochanoff, A. T. (2001). Parental disciplinary styles, parental elaborativeness and attachment: Links to preschoolers' emotion knowledge. Unpublished Ph.D. dissertation, George Mason University, Fairfax VA.

Kojima, Y. (2000). Maternal regulation of sibling interactions in the preschool years: Observational study of Japanese families. Child Development, 71, 1640-1647.

Lazarus, R. S. (1991). Emotion and adaptation. New York: Oxford University Press.

Lutz, C. (1994). Cultural patterns and individual differences in the child's emotional meaning system. In S. Kitayama & H. R. Markus (Eds.), Emotion and culture: Empirical studies of mutual influence. Washington, DC: American Psychological Association.

Markus, H. R., & Kitayama, S. (1994). The cultural construction of self and emotion: Implications for social behavior. In S. Kitayama & H. R. Markus (Eds.), Emotion and culture: Empirical studies of mutual influence. Washington, DC: American Psychological Association.

Matsumoto, D. (1994). People: Psychology from a Cultural Perspective. Pacific Grove, CA: Brooks/Cole Publishing Co.

Matsumoto, D., et al. (1988). Antecedents of and reactions to emotions in the United States and Japan. Journal of Cross-Cultural Psychology, 19, 267-286.

Matsuo, K. (1997). Young children's comprehension of figurative language which describe emotions. Japanese Journal of Developmental Psychology, 8, 165-175.

Mauro, R., Sato, K., & Tucker, J. (1992). The role of appraisal in human emotions: a cross-cultural study. Journal of Personality and Social Psychology, 62, 301-318.

Nakamura, M., Buck, R., & Kenny, D. A. (1990). Relative contributions of expression behavior and contextual information to the judgment of the emotional state of another. Journal of Personality and Social Psychology, 59, 1032-1039.

Oatley, K. & Jenkins, J. M. (1996). Understanding emotions: In psychology, psychiatry, and social science. Cambridge, MA: Blackwell.

Olds, D., Hill, P., Mihalic, S., & O'Brien, R. (1998). Blueprints for Violence Prevention, Book Seven: Prenatal and Infancy Home Visitation by Nurses. Boulder, CO: Center for the Study and Prevention of Violence.

Olthof, T., Ferguson, T. J., & Luiten, A. (1989). Personal responsibility antecedents of anger and blame reactions in children. Child Development, 60, 1328-1336.

O'Neil, R., & Parke, R. D. (2000). Family-peer relationships: The role of emotion regulation, cognitive understanding, and attentional processes as mediating processes. In K. Kerns, J. Contreras, & A. M. Neal-Barnett (Eds.), Family and peers: Linking two social worlds (pp. 195-225). New York: Greenwood Praeger.

Saarni, C. (1990). Emotional competence. In Ross Thompson (Ed.), Nebraska symposium: Socioemotional development (pp. 115-161). Lincoln, NB: University of Nebraska Press.

Saarni, C. (1997). Coping with aversive feelings. Motivation and Emotion, 21, 45-63.

Saarni, C. (1998). Issues of cultural meaningfulness in emotional development. Developmental Psychology, 34, 647-652.

Saarni, C. (1999). The development of emotional competence. New York: Guilford.

Sawada, T. (1997). Development of children's understanding of emotional dissemblance in another person. Japanese Journal of Educational Psychology, 45, 50-59.

Shapiro, L. E. (1997. How to raise a child with a high E. Q. New York: Harper Collins.

Shiraev, E., & Levy, D. (2001). Introduction to cross-cultural psychology: critical thinking and contemporary applications. Needham Heights, MA: Allyn & Bacon.

Shure, M.B. (1993). Interpersonal problem solving and prevention: A comprehensive report of research and training. #MH-40801. Washington, DC: NIMH.

Sonoda, N., & Muto, T. (1996). References to internal states in mother-child interactions: Effect of different settings and maternal individual differences. Japanese Journal of Developmental Psychology, 7, 159-169.

Thompson, R. A. (1994). Emotional regulation: A theme in search of definition. In N. A.

Fox (Ed.), The development of emotion regulation: Biological and behavioral considerations.

Monographs of the Society for Research in Child Development, 59 (2-3, Serial No. 240), 25-52.

Tomkins, S. S. (1963). Affect, imagery, and consciousness, Vols. I and II. New York:

Springer.

Tomkins, S. S. (1991). Affect, imagery, and consciousness, Vol. III. The negative affects:

Anger and fear. New York: Springer.

Ujiie, T. (1997). How do Japanese mothers treat children's negativism? Journal of

Applied Developmental Psychology, 18, 467-483.

Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study.

Journal of Consulting and Clinical Psychology 62, 583-593.

Zahn-Waxler, C., Friedman, R. J., Cole, P. M., Mizuta, I., et al. (1996). Japanese and

United States preschool children's responses to conflict and distress. Child Development, 67,

2462-2477.

Zeman, J., & Shipman, K. (1996). Children's expression of negative affect: Reasons and

methods. Developmental Psychology, 32, 842-849.