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EMOTIONAL LIFE OF THE FAMILY: PARENTAL META- -EMOTIONS, CHILDREN'S TEMPERAMENT AND INTERNALISING AND EXTERNALISING PROBLEMS

Andreja BRAJŠA-ŽGANEC
Institute of Social Sciences Ivo Pilar, Zagreb

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Author's Note
The data presented in this paper were collected as a part of a comprehensive study on the emotional life of a family with preschool children.

The aim of this study was to investigate some assumptions related to Gottman's model of parental meta-emotions on a sample of preschool children's parents. The study included 506 parents. The questionnaires about parental meta-emotions, dimensions of temperament and children's internalising and externalising problems were completed by mothers and fathers separately. Mothers' and fathers' awareness of their own and of their children's emotions and coaching child emotions were indirectly related to child externalising and internalising problems through child negative affectivity and effortful control, and awareness was also directly related to the child's externalising and internalising problems. The results of the models showed that mothers' and fathers' awareness and coaching were positively related to effortful control and negatively related to negative affectivity, whereas only mothers' and fathers' awareness were negatively related to externalising and internalising problems. Simultaneously, negative affectivity was positively related to the child's externalising and internalising problems and effortful control was negatively related to the child's externalising and internalising problems. With this study, we have confirmed part of the investigated assumptions from Gottman's model that relate to the influence of parental meta-emotion on child outcomes.

Keywords: parental meta-emotion, negative affectivity, effortful control, child externalising and internalising problems



Andreja Brajša-Žganec, Institute of Social Sciences Ivo Pilar, Marulićev trg 19/1, P. O. Box 277, 10 001 Zagreb, Croatia.
E-mail: Andreja.Brajša.Zganec@pilar.hr

INTRODUCTION

The family is one of the main socialization contexts of emotional expression and regulation among normative samples (Denham, 1997; Denham et al., 2000; Eisenberg, Fabes, & Lo-soya, 1997; Eisenberg et al., 1995; Eisenberg et al., 2001). Among recent approaches used to investigate the relationship between family and children's adjustment are those oriented toward the structure of parental meta-emotions and the functioning role of meta-emotions in children's development (Gottman, Katz, & Hooven, 1996; Hooven, Gottman, & Fainsilber Katz, 1995; Katz, Maliken, & Stettler, 2012). Gottman and collaborators emphasize the importance of parental meta-emotion structure for maintaining the family as a system. In their research, Gottman and collaborators investigate parental awareness of their own and of their children's emotions and parents' ability to manage children's emotions as important predictors of children's psychosocial adjustment (Gottman et al., 1996; Hooven et al., 1995; Katz & Gottman, 1997). The focus of their later research is on the association between specific selected dimensions of meta-emotions and problems in childhood (Katz & Windecker-Nelson, 2004; Katz & Windecker-Nelson, 2006; Maliken & Katz, 2013; Ramsden & Hubbard, 2002) and in adolescence (Katz & Hunter, 2007; Wu Shortt, Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010; Hunter et al., 2011).

The concept of meta-emotions refers to emotions about emotions, to the analysis of our own emotions. For Gottman and collaborators, the meta-emotion structure implies emotional executive functioning based on emotions; it includes thoughts and emotions about emotions where meta-emotion encompasses thoughts, metaphors, and an entire parental philosophy about emotions. Using the meta-emotion concept, Gottman and collaborators (1996, 1997), in their research, evaluated parents' emotions about their own emotions in order to reveal individual differences in the experience of emotions. People react differently when they experience anger; some are visibly upset when they get angry, some feel well in relation to their ability to express anger and there are also those who are neutral about their anger – neither good nor bad. In addition, the approach to sadness differs among individuals. The concepts parallel to meta-emotions are meta-cognition and meta-communication (Gottman et al., 1997; Hooven et al., 1995; Katz & Gottman, 1997). Another concept comparable to that of meta-emotions is meta-mood; meta-experience about mood which involves cognition and an opinion of an individual about his own mood. These concepts, similar to meta-emotions, have been discussed and investigated by theorists and researchers in the field of emotional intelligence. Mayer and Salovey (1997), in

their model of emotional intelligence, identify three levels of emotional intelligence; perception and expression of our emotions and among others, the use of emotions for better adaptation and our emotion regulation and emotion regulation in others. According to the theory of emotional intelligence, people differ in awareness and regulation of their own emotions, in their ability to manage their own and others' emotions and in their ability to reflexively track emotions related to ourselves and to others.

Comparable to the concept of emotional intelligence, awareness of one's own and children's emotions and coaching of emotions are incorporated in the concept of meta-emotion structure. According to Gottman and collaborators, the parent-child interaction related to child's emotions takes place through parents' actions and communication with the child about his/her emotions, about the conditions that cause them and strategies to deal with emotions. In their research, Gottman and collaborators confirmed the existence of the concept of meta-emotions and its multiple associations with psychosocial adjustment in children (Gottman et al., 1996, 1997; Hooven et al., 1995; Katz & Gottman, 1997).

There is much research in developmental psychology that relates to parents' actions and discipline, variables such as warmth, control, authoritarian or authoritative style (see Baumrid, 1971; Maccoby & Martin, 1983; Darling & Steinberg, 1993; Lansford, Wager, Bates, Dodge, & Pettit, 2012 for a review). Considerably less research has focused on parents' coaching their children's emotions and to emotional bonds between parents and children. According to Gottman and collaborators, what is missing in the described parental styles are parents' emotions about their own emotions and connections with specific emotional behaviours in children. Meta-emotions and teaching about emotions is not a sub-dimension of positive parenting but an additional component to the current concept of parenthood and is somewhat more general than the concept. According to Gottman and collaborators (1996, 1997), parents' relationship toward children's emotional life is associated with children's regulation of emotions and influences children's behaviour in everyday life.

The starting point of the model by Gottman, Katz, and Hooven depicting the philosophy of parents' meta-emotions and emotional family life, is the association between parents' emotions and thoughts on their emotions and decreased parental negative affect and increased positive parenting as well as the assumption that parental meta-emotion structure directly influences children's regulatory physiology and children's ability to regulate their emotions. In this way, the parental

meta-emotion structure is also connected with children's psychosocial adjustment. A basic hypothesis of the model is parents' awareness of the emotional life of their child and parents' attempts to establish emotional ties with the child. In their research, Gottman and collaborators (1996, 1997) started from a total of 12 variables; awareness of own emotions, awareness of children's emotions and coaching children's emotions for mothers and fathers; sadness and anger variables that were reduced to two variables of parental meta-emotion structure, such as awareness of own emotions and awareness of children's emotions and coaching children's emotions. Some analyses dealt with the meta-emotion structure separately for mothers and fathers (Hooven et al., 1995) and dimensions of awareness and coaching were summarised (Katz & Gottman, 1997) in some analyses.

Individual differences in children's emotionality are closely related to their regulatory physiology and emotion regulation and therefore play an important role in the influence that meta-emotions have on emotional and social competence as well as emotional or behavioural problems in children, given that, as assumed by the authors, parents coach children's emotions in compliance to the characteristics of the child's temperament. In a great deal of research, parental discipline methods are associated with temperament dimensions and with psychosocial adjustment measures (e.g. Stright, Gallagher, & Kelley, 2008; Russell, Hart, Robinson, & Olsen, 2003; van Zeijl et al., 2007; Brajša-Žganec & Hanzec, 2014). In the model of meta-emotions, characteristics of temperament are related to the parenting style that reduces the importance of emotions and negative relations with peers (Gottman et al., 1996). Parents' meta-emotions may be influenced by the child's temperament characteristics but parents' coaching of children's emotions in interaction with children's temperament characteristics, may influence children's psychosocial adjustment (Gottman et al., 1997; Katz, Gottman, & Hooven, 1996).

Generally, results of testing Gottman's model pointed to a direct connection between meta-emotion variables and children's psychosocial adjustment, children's health in particular, and also to indirect connections through children's physiology and emotion regulation for the criteria variable of conduct towards peers, and through the styles of parental behaviour especially in relation to children's achievement.

Since the model by Gottman and collaborators deals with emotional relations within the family, as well as with children's emotional and social competency and children's psychosocial adjustment, the model has been criticised by researchers in both fields. Nancy Eisenberg (1996) emphasised the

overlapping of the parent's meta-emotion with parental style variables and suggested that the model should pay greater variable attention to children's emotion regulation and children's emotionality. Similarly, Philip Cowan (1996) emphasised the problem of distinction between meta-emotion structure with parental styles and the importance of direct influence of parents' awareness of their own and child's emotions and coaching the child's emotions on children's psychosocial adjustment.

Our interest was to investigate some assumptions of this model among a Croatian sample of parents with preschool children. The aim of our study was to assess the relations between family emotional variables, mothers' and fathers' awareness of their own and their child's emotions and coaching children's emotion and negative affectivity and effortful control as dimensions of temperament as well as between mothers' awareness and coaching of emotions and externalising and internalising problems of children. Our intention was to check, on the part of Gottman's model relating to parental meta-emotions, children's temperament and internalising and externalising problems. On the basis of this model, we hypothesised that there is a direct association between parental meta-emotions and children's problems as well as their indirect associations through the dimension of the child's temperament.

METHOD

Participants

The study included 506 parents from complete families. The completed surveys given to parents were returned by 556 mothers and fathers for a total of 716 children, 97% (538) of parents were married and living together. All the required information was collected from mothers and fathers for 506 (94%) children. The mean age of preschool children in our sample was 5 years and 2 months; the age range was from 2 years and 9 months to 7 years and 3 months. In our final sample, 24% were single children, 58% had a brother or sister, and 18% were from families with three or more children. Parents' education (1 – elementary school not completed; 2 – elementary school; 3 – secondary school; 4 – non-university post-secondary education; 5 – university or higher level) was the following: on average, mothers (57%) and fathers (61%) completed secondary school and approximately an equal number of mothers and fathers had a non-university post-secondary (13%) or university level of education (22%).

Measures

Parental meta-emotion structure

Mothers and fathers completed the new Parental Meta-Emotion Structure Questionnaire (Brajša-Žganec, 2002) constructed and based on the theoretical hypotheses of the model for parental meta-emotion structure (Gottman et al., 1996, 1997), Meta-Emotion Interview (Katz & Gottman, 1986) and coding system for the Meta-Emotion Interview (Gottman et al., 1996; Hooven et al., 1995). Two preliminary studies were conducted among students (see Brajša-Žganec, 2003). A final selection of statements was made using a series of analyses conducted on a sample of parents from the main study. In subsequent re-analyses the scales were additionally shortened and were cross-validated again on a new sample of subjects from the same population and all analyses were conducted separately for fathers and mothers (see Brajša-Žganec, 2003).

In this study, the overall result for two measures of meta-emotional structures related to both mothers and fathers. A dimension of awareness of their own and children's emotions of sadness and intense anger was assessed using 26 items, and a dimension of coaching children's emotions using 10 items in the questionnaire. Theoretical results on each of the two measures of dimensions for meta-emotions ranged from 1 to 4 because the average result calculated for each measure was expressed in scale units. Statements relating to lower awareness of parents' own and children's emotions of sadness and intense anger as well as emotion coaching were recoded in such a way that a higher score indicated higher awareness of their own and children's emotions of sadness and intense anger, and also coaching based on greater respect, that is, better coaching children's emotions of sadness and intense anger.

For dimensions of awareness of their own and children's emotions of sadness and intense anger, the reliability coefficient (Cronbach alpha) is 0.85 for mothers, and 0.83 for fathers. For dimensions of coaching children's emotions of sadness and intense anger, the reliability coefficient is 0.69 for mothers and 0.74 for fathers.

Children's externalising and internalising problems

For the assessment of children's problems, mothers and fathers completed Achenbach's Child Behavior Checklist/ 4-18 (CBCL, Achenbach, 1991). The latent structure of behaviour problems and other metric characteristics were tested and the obtained results were used to create subscales of problem behaviour (see Brajša-Žganec, 2003). CBCL was filled in by the mother and father for each child and on the basis of a factorial structure two subscales were created. The subscale for

the externalised problems consists of 22 items while for the internalised problems this consists of 13 items.

The average assessment value was calculated for mothers and fathers. Justification of composite measures for the assessment of children's problems by both parents was carried out by studying the convergent and discriminative validity of these measures using a multitrait-multimethod analysis by Campbell and Fiske (1959). Although all coefficients of convergent and discriminative validity were found significant, they indicate a satisfactory convergent and discriminative validity of measures and justify the formation of a composite result for externalized and internalized problems for each child for both parents. Coefficients of convergent validity are higher than those of discriminative validity. The total value for externalised problems and internalised problems is in the range from 0 to 44 and from 0 to 26, respectively. Reliability (Cronbach alpha coefficients) of composite results obtained on the basis of average assessments by both parents is 0.90 for externalised and 0.80 for internalised problems. Reliability values are somewhat higher than those for individual assessments and indicate satisfactory homogenous composite measures for children's behaviour.

Children's temperament questionnaire

In this study, a part of the Children's Behaviour Questionnaire was used for parental assessment of children's temperament characteristics (CBQ, Rothbart, 1988; according to Goldsmith & Rothbart, 1991). We examined two dimensions of temperament; effortful control and negative affectivity, and each of them was measured using two subscales. The basic dimensions included in the CBQ for the child's first year (Goldsmith & Rothbart, 1991) had inhibitory control added as an important aspect of socialisation, social development and problematic behaviour (Kochanska, Murray, Jacques, Koenig, & Vandegest, 1996; Kochanska, Murray, & Coy, 1997; Kochanska, Murray, & Harlan, 2000). Abbreviated CBQ in this investigation included the following scales: fear, frustration, attention focus and inhibitory control, and two characteristics for temperament of two higher-order dimensions each (negative affectivity and inhibitory control). Parents were asked to estimate to what degree each statement describes their child's response over the past six months and to mark their estimate on a scale from 1 to 7 (1 – extremely untrue of your child, 2 – quite untrue, 3 – slightly untrue, 4 – neither true nor false, 5 – slightly true, 6 – quite true, 7 – extremely true of your child or NA meaning "Non applicable to the child"). Frustration, inhibitory control and attention focus consists of 11 items and the fear scale consists of 10 items. As suggested in the studies of temperament (Ahadi, Rothbart, & Ye, 1993; Rothbart, Ahadi, &

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Hershey, 1994) and on basis of the analyses conducted, assessments for basic dimensions of temperament for mothers and fathers were created and the average result was calculated for each higher-order dimension. Possible theoretical results obtained in this way for each of the higher-order dimensions are in the range from 1 to 7 for both mothers and fathers, where a higher score denotes manifestation of behaviour more indicative of a certain characteristic of temperament. As suggested by researchers in this field (e.g. Dettling, Gunnar, & Donzella, 1999; Eisenberg & Fabes, 1995; Katz & Gottman, 1993) composite measures were created for mothers and fathers for the two measures of temperament dimensions and their convergent and discriminative validity were studied (see Brajša-Žganec, 2003). The conducted analyses justify the creation of composite results for the two dimensions of temperament for each child as the average assessment value by the mother and father. Reliability (Cronbach alpha coefficients) of composite results obtained on the basis of average assessments by both parents range from 0.77 to 0.87, they are somewhat higher than the reliability of individual estimates and indicate satisfactory homogeneity of composite measures of temperament dimensions.

Procedure

The dataset used in this paper is a part of a larger dataset collected in a research project conducted in Croatia that focused on meta-emotion and family, on socio-emotional development of preschool children and on children's basic behavioural characteristics (Brajša-Žganec, 2003). Approval for this project conducted in kindergartens was provided from the Ministry of Education, Science and Sport of the Republic of Croatia and kindergarten principals. The study included 37 kindergarten groups. Parents were given two envelopes containing surveys about their children by their child's teacher; one for the mother and the other for the father. They were asked to fill in the survey at home and after the entire questionnaire was completed by both parents, they were asked to seal the envelopes and return them to teachers within seven days.

RESULTS

Descriptive and correlation analyses

Table 1 presents the means, standard deviations and correlations between all the study variables. Gender differences in preschool children were checked for all variables studied, but none of the differences were statistically significant. The age of children was significantly related only to effortful control and child externalising problems. Table 1 shows correlations between dimensions of meta-emotion for the mother and

father, negative affectivity and effortful control as a dimension of the child's temperament and the child's externalising and internalising problems. Mothers' and fathers' awareness of their own and their child's emotions were significantly correlated. In addition, but to a somewhat lesser degree, mothers' and fathers' coaching of the child's emotions were significantly correlated. A certain degree of concordance between parents was observed in families relating to parents' awareness of their own and their child's emotions, and in the coaching of a child's emotion. Conversely, a zero-order correlation for mothers and fathers between awareness of their own and their child's emotions and the coaching of a child's emotion, yielded no significant relationships. Negative affectivity and effortful control were significantly correlated in such a way that children with more effortful control have less negative affectivity and vice versa. Mothers' awareness of their own and their child's emotions and their coaching of a child's emotions, and fathers' awareness of their own and their child's emotions were significantly negatively correlated with negative affectivity, and mothers' and fathers' awareness and coaching were significantly and positively correlated with effortful control.

TABLE 1
Means, standard deviations, and correlations between study variables (N=506)

	M± SD	Meta-emotion				Temperament		Problems
		1.	2.	3.	4.	5.	6.	7.
1. Awareness of own and child's emotion – mother	2.66±0.42							
2. Coaching of child's emotion – mother	3.42±0.33	0.03						
3. Awareness of own and child's emotion – father	2.65±0.40	<u>0.45</u>	0.02					
4. Coaching of child's emotion – father	3.25±0.39	0.05	<u>0.27</u>	-0.03				
5. Negative affectivity	3.80±0.60	<u>-0.22</u>	<u>-0.09</u>	<u>-0.16</u>	-0.01			
6. Effortful control	4.90±0.62	<u>0.11</u>	<u>0.13</u>	<u>0.11</u>	<u>0.11</u>	<u>-0.39</u>		
7. Externalising problems	6.53±4.91	<u>-0.16</u>	-0.06	<u>-0.16</u>	-0.01	<u>0.35</u>	<u>0.48</u>	
8. Internalising problems	1.45±1.86	<u>-0.13</u>	-0.08	<u>-0.18</u>	0.00	<u>0.29</u>	<u>0.32</u>	<u>0.47</u>

$p < 0.05$; $p < 0.01$

Mothers' awareness of their own and their child's emotions and fathers' awareness of their own and their child's emotions were significantly negatively correlated with children's externalising and internalising problems. These correlations indicate that more mothers' and fathers' awareness of their own and their child's emotion were related to less children's externalising and internalising problems, while mothers' and fathers' coaching of the child's emotions was not significantly correlated with children's externalising and internalising problems. In addition, more effortful control was related to less children's externalising and internalising problems and more

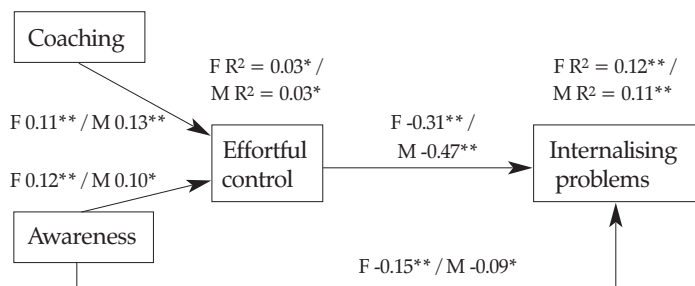
negative affectivity was related to more children's externalising and internalising problems.

Path analyses

Using correlations described above and the model for meta-emotion by Gottman and collaborators, we tested 8 models of association between meta-emotion (separately for mothers and fathers), temperament (effortful control/negative affectivity) and children's problems (externalising/internalising). We chose to investigate children's negative affectivity and effortful control as a possible link between mothers' and separately fathers' reports of family emotion variables and children's externalising and internalising problems. Path analysis was used to evaluate our hypothesis that family emotion variables would be indirectly or/and directly related to a child's externalising and internalising problems through or without negative affectivity and effortful control. In other words, we set up models in which mothers' and fathers' awareness of their own and their child's emotions are both directly and indirectly associated with children's externalising and internalising problems, while mothers' and fathers' coaching of their child's emotions is only indirectly associated with children's problems through the temperament dimension. Using path analysis we firstly estimated direct effects in all models, and afterwards indirect links were added to models and indirect effects estimated. When some direct or indirect link was insignificant, we omitted it from the models. Path analysis was used to derive the best-fitting model, which are presented in the figures. Analyses were performed using Mplus 7 (Muthén & Muthén, 1998-2012).

In view of mothers' ratings for awareness and coaching as well as effortful control as a dimension of temperament and their child's internalising problems, our model fits the data; $\chi^2(1) = 0.735$ (ns), CFI = 1.00, TLI = 1.06, RMSEA = 0.00, SRMR = 0.01, and all paths were significant (Figure 1).

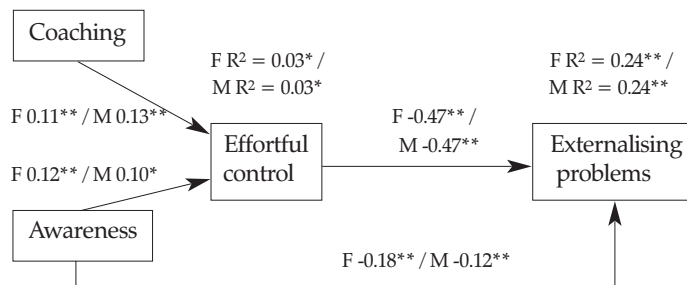
➔ FIGURE 1
Model of indirect and direct relations between two family emotion variables (coaching and awareness) and child internalising problems through the indirect path of child effortful control for mother meta-emotion (M) and separately for father meta-emotion (F)



M – mother meta-emotion (indirect relations for awareness $\beta = -0.03^*$ and coaching $\beta = -0.04^*$); F – father meta-emotion (indirect relations for awareness $\beta = -0.04^*$ and coaching $\beta = -0.03^*$); * $p < 0.05$. ** $p < 0.01$.

In this model, the R^2 for effortful control was 0.027, and the R^2 for internalising problems was 0.112. These findings indicate that mothers' awareness and coaching were related to child's effortful control and that child's effortful control was related to child internalising problems. The results for indirect relations (for awareness $\beta = -0.03$, $p < 0.05$ and coaching $\beta = -0.04$, $p < 0.05$) indicated that the indirect effect from mothers' awareness and coaching to child internalising problems through effortful control was significant. The model also confirms the direct effect from mothers' awareness to child internalising problems. The same model fits our data for externalising problems; $\chi^2(1) = 0.011$ (ns), CFI = 1.00, TLI = 1.03, RMSEA = 0.00, SRMR = 0.001, and all paths were significant (Figure 2).

FIGURE 2
 Model of indirect and direct relations between two family emotion variables (coaching and awareness) and child externalising problems through the indirect path of child effortful control for mother meta-emotion (M) and separately for father meta-emotion (F)



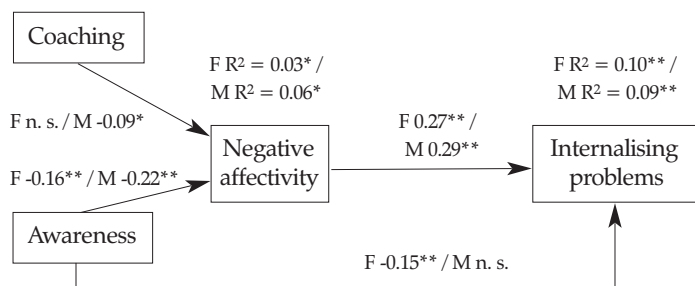
M – mother meta-emotion (indirect relations for awareness $\beta = -0.05^*$ and coaching $\beta = -0.06^{**}$); F – father meta-emotion (indirect relations for awareness $\beta = -0.06^{**}$ and coaching $\beta = -0.05^{**}$); * $p < 0.05$. ** $p < 0.01$.

In this model, the R^2 for effortful control and for externalising problems was 0.027 and 0.245 respectively, and for indirect relations it was for awareness $\beta = -0.05$, $p < 0.05$ and for coaching $\beta = -0.06$, $p < 0.01$. The same model fits our data for fathers' ratings for awareness and coaching (externalising problems: $\chi^2(1) = 1.006$ (ns), CFI = 1.00, TLI = 1.00, RMSEA = 0.00, SRMR = 0.01; R^2 for effortful control was 0.025, for externalising problems it was 0.244, for indirect relations it was for awareness $\beta = -0.06$, $p < 0.01$ and for coaching $\beta = -0.05$, $p < 0.01$; Figure 2; internalising problems: $\chi^2(1) = 0.718$ (ns), CFI = 1.00, TLI = 1.02, RMSEA = 0.00, SRMR = 0.01; R^2 for effortful control was 0.025, for internalising problems it was 0.124, for indirect relations for awareness $\beta = -0.04$, $p < 0.05$ and for coaching $\beta = -0.03$, $p < 0.05$; Figure 1). In summary, mothers' and fathers' awareness of their own and their child's emotions and mothers' and fathers' coaching of their child's emotions were indirectly related to their child's externalising and internalising problems through their child's effortful control, but mothers' and fathers' awareness of their own and their child's

emotion were also directly related to their child's externalising and internalising problems.

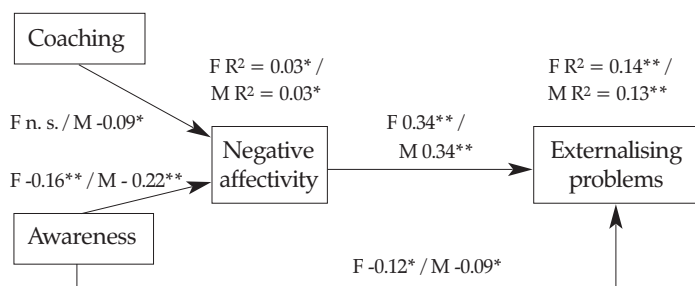
The same model was found for mothers' ratings of awareness and coaching as well as negative affectivity as a dimension of temperament and their child's externalising problems ($\chi^2(1) = 1.405$ (ns), CFI = 1.00, TLI = 1.03, RMSEA = 0.00, SRMR = 0.01; R^2 for negative affectivity was 0.056, for externalising problems it was 0.134, for indirect relations for awareness $\beta = -0.07$, $p < 0.01$ and for coaching $\beta = -0.03$, $p = 0.05$; Figure 4). Another model was found for mothers' ratings of awareness and coaching as well as negative affectivity as dimensions of temperament and child internalising problems (Figure 3).

⇒ FIGURE 3
Model of indirect and direct relations between two family emotion variables (coaching and awareness) and child internalising problems through the indirect path of child negative affectivity for mother meta-emotion (M) and separately for father meta-emotion (F)



M – mother meta-emotion (indirect relations for awareness $\beta = -0.06^{**}$ and coaching $\beta = -0.03$, $p = 0.05$); F – father meta-emotion (indirect relations for awareness $\beta = -0.04^{**}$); * $p < 0.05$. ** $p < 0.01$.

⇒ FIGURE 4
Model of indirect and direct relations between two family emotion variables (coaching and awareness) and child externalising problems through the indirect path of child negative affectivity for mother meta-emotion (M) and separately for father meta-emotion (F)



M – mother meta-emotion (indirect relations for awareness $\beta = -0.07^{**}$ and coaching $\beta = -0.03$, $p = 0.05$); F – father meta-emotion (indirect relations for awareness $\beta = -0.05^{**}$); * $p < 0.05$. ** $p < 0.01$.

Mothers' awareness of their own and their child's emotions and mothers' coaching of their child's emotions were indirectly related to child internalising problems through child negative affectivity ($\chi^2(2) = 3.738$ (ns), CFI = 0.98, TLI = 0.94, RMSEA = 0.04, SRMR = 0.02; for negative affectivity was 0.056, and for internalising problems was 0.085 and for indirect relations for awareness $\beta = -0.06$, $p < 0.01$ and coaching $\beta = -0.03$,

$p = 0.05$). The results seen in the last two models showed that only fathers' awareness of their own and their child's emotions was indirectly (through negative affectivity) and directly related to child internalising (Figure 3) and externalising problems (Figure 4). For child internalising problems: $\chi^2(3) = 0.790$ (ns), CFI = 1.00, TLI = 1.07, RMSEA = 0.00, SRMR = 0.00; R^2 for negative affectivity was 0.026, for internalising problems it was 0.104, and for indirect relations for awareness $\beta = -0.04$, $p < 0.01$. For child externalising problems: $\chi^2(3) = 0.807$ (ns), CFI = 1.00, TLI = 1.05, RMSEA = 0.00, SRMR = 0.01; R^2 for negative affectivity was 0.026, for externalising problems it was 0.137 and for indirect relations for awareness $\beta = -0.05$, $p < 0.01$.

To conclude, the family emotion variables were indirectly related to child externalising and internalising problems through child negative affectivity and effortful control, and as demonstrated by our models, mothers' and fathers' awareness of their own and their child's emotions play a far more important role than coaching. Furthermore, mothers' and fathers' awareness of their own and their child's emotions were both directly (except for the model of mothers' meta-emotion, negative affectivity and internalising problems) and indirectly related to child externalising and internalising problems. The results of the models showed that mothers' and fathers' awareness and coaching were positively related to effortful control and negatively related to negative affectivity, and only mothers' and fathers' awareness was negatively related to externalising and internalising problems. Simultaneously, negative affectivity was positively related to child externalising and internalising problems, while effortful control was negatively related to child externalising and internalising problems. It is important to note that even though all the proposed models have been confirmed, the explained proportion of variances is relatively low. With these findings, we have confirmed part of the investigated assumptions from Gotman's model relating to the influence of parental meta-emotion on child outcomes.

DISCUSSION

The results indicated that effortful control and negative affectivity partly mediated the relation between family emotion variables and child externalising and internalising problems. Effortful control was a more important variable in mediating the connection between family emotion variables and the child's problems. On the basis of these results obtained in our study, we can conclude that self-regulation plays a more important role in the connection between parental meta-emotion and a child's problems. The results of the models showed that mothers' and fathers' awareness and coaching were posi-

tively related to effortful control. The children of parents who are aware of their own and their children's emotions of anger and sadness and subsequently treat these children's emotions with respect, have a higher self-regulation capacity and vice versa. Moreover, children with higher effortful control have less externalising and internalising problems. Our models do not confirm such a clear relationship of associations between parental meta-emotion variables and the dimension of negative affectivity. Greater mothers' and fathers' awareness of their own and children's emotions were associated with a less manifested dimension of children's negative affectivity and vice versa. Further, children with a higher negative affectivity have more externalising and internalising problems.

Furthermore, mothers' and fathers' awareness of their own and their child's emotions were directly (except for the model of mothers' meta-emotion, negative affectivity and internalising problems) related to child externalising and internalising problems. Mothers and fathers with a greater degree of awareness of their own and their children's negative emotions have children with less problems; this relationship was indirectly associated through effortful control, i.e. negative affectivity but direct association was determined as well. In other words, lower levels of mothers' and fathers' awareness of their own and children's emotions were related to higher levels of internalising and externalising problems. It is important to note that this is applicable in complete functional families because in families with intimate partner violence, fathers who were more aware of their children's fear had children who also showed higher levels of externalising problems than children whose fathers were less aware of their children's fear (Maliken & Katz, 2013). Thus, in the broader context of domestic violence, emotion coaching and child adjustment, domestic violence was associated with less coaching of anger and fear depending on whether the parent was the perpetrator or victim of domestic violence (Katz & Windecker-Nelson, 2006). Consequently, the results obtained in this study cannot be generalised and applied to various forms of dysfunctional families.

In addition, our results point to the importance of parental meta-emotions in the development of preschool-aged children in Croatian families. The importance is manifold because the development of a socially and emotionally competent child in an adequate family environment in early childhood ensures, and is a primary predisposing factor for psychosocial adjustment in adolescence. As confirmed by research, children with internalised and externalised problems, aggressive behaviour, a difficult temperament and with low self-esteem, who develop in an unsatisfactory/inappropriate fami-

ly environment (e.g. Denham et al., 2000; Eisenberg et al., 1995; Kochanska et al., 2000; Yap, Allen, Leve, & Katz, 2008) more frequently become psychosocially maladjusted later in childhood.

In view of parental emotion dimensions, our results do not support the relationship of Gottman's meta-emotion dimension (Gottman et al., 1997; Katz & Windecker-Nelson, 2004), because they showed that parents who were higher on emotion coaching were not more aware of their child's emotions and vice versa. Moreover, in another investigation, no connection was determined between parents' awareness of their own and their child's emotions and coaching of child's emotions (Hooven et al., 1995), so awareness and coaching remained as two unconnected meta-emotion dimensions. It should be noted that we assumed that parents' coaching children's emotions in interaction with children's temperament characteristics, may influence children's psychosocial adjustment. In another study, mothers who tended to adopt an emotion-coaching philosophy were more likely to achieve secure parent-child attachments (Chen, Lin, & Li, 2012). If we shift to the age of preadolescence, mother's acceptance of her own emotions was associated with fewer depressive symptoms, higher self-esteem and fewer externalising problems in young adolescents (Katz & Hunter, 2007). The study by Chang, Schwartz, Dodge, and McBride-Chang, (2003) suggested that mothers' harsh parenting affected their child's emotion regulation more strongly than fathers', whereas harsh parenting emanating from fathers had a stronger effect on the child's aggression, and that negative emotionality was found as a potentially common cause of family perturbations, including parenting and child adjustment problems. It can be therefore concluded that family emotional life is a complex system which depends on attitudes and the conduct of mothers and fathers separately, but it also depends on a series of variables likely to affect a family as a system, such as parental styles, quality of marital relationship, stress in a family, etc. However, on the basis of our results we could highlight the importance of the role of maternal meta-emotion philosophy in creating maternal child interaction in families and behavioural problems of children.

The possible limitations of our study undoubtedly include examination of meta-emotion dimensions. In our research, mothers and fathers completed the Meta-Emotion Structure Questionnaire. Similarly, as Hakim-Larson, Parker, Lee, Goodwin, and Voelker (2006) in their research, we also started from a self-report version of the meta-emotion interview introduced in a parenting guidebook (Gottman, 1997). Lagacé-Séguin and Coplan (2005) developed a modified version of an existing

self-assessment questionnaire designed to measure parents' emotional style, and results from the study indicated a two-factor scale for the maternal emotional styles questionnaire, emotion coaching and emotion dismissing. On the other hand, Paterson and collaborators (2012) obtained different factorial structures of the parental meta-emotion dimension depending on whether these were typically developing children or children with developmental disabilities (emotion coaching, parental acceptance of negative emotion, and parental rejection of negative emotion and in subsample feelings of uncertainty/ineffectiveness in emotion socialisation). Therefore, it is hard to measure the construct of meta-emotion, partly because it is both different and comparable to other constructs measuring family emotional life and dimensions of parenthood critical for children's psychosocial adjustment. Based on the results of our and other studies, we can conclude that future studies should pay particular attention to measurement of the parental meta-emotion dimension, use different self-evaluation scales and combine interview and observation as an additional method. This should be done for separate dyads within family members as a system, separately for a subject sample from functional and dysfunctional families and depending on the child's development status (with developmental disabilities or not).

To summarise, family emotion variables were indirectly related to child externalising and internalising problems through child negative affectivity and effortful control. In addition, mothers' and fathers' awareness of their own and their child's emotions were both directly and indirectly related to the child's externalising and internalising problems. The results of the models showed that mothers' and fathers' awareness and coaching were positively related to effortful control and negatively related to negative affectivity while only mothers' and fathers' awareness were negatively related to externalising and internalising problems. Concurrently, negative affectivity was positively related to child externalising and internalising problems, and effortful control was negatively related to child externalising and internalising problems. It is important to note that even if all the proposed models are confirmed, the explained proportion of variances are relatively low. With this study we have confirmed part of the investigated assumptions from Gottman's model relating to the influence of parental meta-emotion on child outcomes.

These findings therefore point to a need for the development of an intervention programme aimed at improving parental awareness and emotion coaching. Parent-child interactions help children to learn how to regulate their emotions which may increase their self-regulation ability, decrease ex-

pressions of negative affectivity and result in fewer externalising and internalising problems. Parental education programs addressing parental attitudes and practices related to emotion should be supported, with special emphasis on the identification of children at risk for emotion regulation difficulties. Preventive programmes are aimed at enhancing children's socio-emotional competence and taking steps to prevent the emergence of behavioural problems and psychopathology. Based on the analysis of a great deal of research, Izard (2002) suggests 7 principles for developing preventive interventions, which, in addition to emotion communication in early life, include the utilisation of positive and negative emotions, emotion modulation as a mediator of emotion utilisation, emotion patterns in states and traits, different processes of emotion activation, and the development of connections for the modular and relatively independent emotions and cognitive systems. In association with the results obtained in this study, effective emotion communication in the child's early years can prevent emotional deprivation and dysfunctional emotion systems, foster the development of socio-emotional competence and prevent behavioural problems such as aggression, violence, and social withdrawal.

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Emocionalni život obitelji: roditeljske metaemocije, temperament djeteta i eksternalizirani i internalizirani problemi

Andreja BRAJŠA-ŽGANEC
Institut društvenih znanosti Ivo Pilar, Zagreb

Cilj istraživanja bio je ispitati neke pretpostavke Gottmanova modela roditeljskih metaemocija na uzorku roditelja djece predškolske dobi. U istraživanju je sudjelovalo 506 roditelja. Uпитnike o metaemocijama, dimenzijama temperamenta te dječjim internaliziranim i eksternaliziranim problemima ispunjavali su zasebno majka i otac. Majčina i očeva svjesnost vlastitih i dječjih emocija i postupanje s dječjim emocijama indirektno je povezana s dječjim eksternaliziranim i internaliziranim problemima preko dječje negativne afektivnosti i samokontrole a dodatno je svjesnost izravno povezana s dječjim internaliziranim i eksternaliziranim problemima. Rezultati dobivenih modela pokazuju da je majčina i očeva svjesnost vlastitih i dječjih emocija i postupanje s dječjim emocijama pozitivno povezana sa samokontrolom i negativno povezana s negativnom afektivnosti, dok je jedino majčina i očeva svjesnost vlastitih i dječjih emocija negativno povezana s eksternaliziranim i internaliziranim problemima. Istodobno, negativna je afektivnost pozitivno povezana s dječjim eksternaliziranim i internaliziranim problemima, a samokontrola je negativno povezana s dječjim eksternaliziranim i internaliziranim problemima. Ovim istraživanjem potvrdili smo dio pretpostavki iz Gottmanova modela kako roditeljske metaemocije utječu na dječje izlazne varijable.

Ključne riječi: roditeljske metaemocije, negativna afektivnost, samokontrola, dječji eksternalizirani i internalizirani problemi