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COMMENTARY ON FATHERS' PLAY: MEASUREMENT, CONCEPTUALIZATION, CULTURE, AND CONNECTIONS WITH CHILD DEVELOPMENT

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ABSTRACT: The diverse set of studies in this special issue on fathers' play includes empirical research from several countries, observational measures of play, and multiple children's outcomes, including language, negativity, social competence, aggression and internalizing problems. The chief conclusion across studies is that the role of paternal play is important in various domains of child development. This is encouraging, yet also disturbing given the results of the State of the World's Fathers: Time for Action report 2017, revealing the low amount of care fathers provide to their children worldwide, relative to mothers. In this commentary, the measurement and conceptualization of play are discussed, as well as cultural considerations regarding the meaning and consequences of play. The findings of the studies are integrated in order to guide future research, addressing what domains of child development appear to be influenced by what types of paternal play, and discussing the contexts that affect paternal play. Lastly, the collective results are related to recent efforts to increase fathers' involvement and implications for interventions are discussed.

Keywords: fathers, play, culture, rough-and-tumble play, child development

* * *

What a pleasure to comment on a set of research papers of such quality and diversity, addressing such an important and joyful topic: fathers' play. These articles include empirical research from several countries, observational measures of play, and multiple children's outcomes. The chief conclusion is, as was expected, that the role of paternal play is important in various domains of child development. These findings may not come as a surprise for researchers on fatherhood, but they are still painful in the light of the results of the recently launched *State of the World's Fathers: Time for Action* report (Heilman, Levto, van der Gaag, Hassink, & Barker, 2017), which concludes that there is no country in the world where fathers provide an equal amount of care to their children as do mothers. The positive relations between fathers' play and children's outcomes underscore the benefits of higher paternal involvement in their children's lives. In my commentary, I will discuss the measurement and conceptualization of play as well as cultural considerations regarding the meaning and consequences of play. I will connect the findings of the studies to guide future research, addressing what domains of child development appear to be influenced by what types of paternal play and discussing the contexts that affect paternal play. Last, I will relate the collective

results to recent efforts to increase fathers' involvement and discuss potential implications for interventions.

THE MEASUREMENT AND CONCEPTUALIZATION OF PLAY

Two types of play are addressed by these studies: the quality of pretend play ("playfulness;" Cabrera, Karberg, Malin, & Al-doney, 2017; Menashe-Grinberg & Atzaba-Poria, 2017) and physical "rough-and-tumble" play (RTP) (Ahnert et al., 2017; Anderson, Qiu, & Wheeler, 2017; StGeorge & Freeman, 2017). Both types of paternal play appear to have meaningful relations to a variety of child outcomes. Moreover, these studies suggest that *quality* is a key aspect of play in relation to child development. As play quality is difficult, if not impossible, to assess using questionnaires, the four empirical studies (and most of the studies included in the meta-analysis by StGeorge and Freeman) use observations to measure play, with tasks carefully developed to assess the relevant type of play; that is, the provision of toys to assess the quality of pretend play, or the provision of a structured physical task or a room with mats to induce physical play.

Although most of the studies use only one task to measure play, with varying durations, this seems enough to capture aspects of play that meaningfully relate to child development. In my own work, I have developed a dozen structured and free-play tasks at home and in the lab to assess challenging parenting behavior, a construct somewhat broader than RTP, at three ages in early

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childhood (Majdandžić, de Vente, & Bögels, 2016). Internal consistency across tasks ranged from .56 to .77, suggesting that these types of parenting behaviors may be quite consistent across settings (structured vs. free play) and locations (home vs. lab). This is in line with the conclusion of StGeorge and Freeman (2017) that play settings and contexts do not seem critical to the assessment of the consequences of physical play for child outcomes. However, the consistency of parenting behavior across settings, locations, and types of play is still understudied, in particular for the recently developed measures used by the empirical articles of this special section. In addition, single tasks, as well as structured tasks in which parents are instructed to exhibit certain behaviors (Ahnert et al., 2017; Anderson et al., 2017), do not reveal how often parents actually engage in play of these kinds in daily life. To increase ecological validity, fathers' and mothers' play is ideally observed in a wide range of play settings, including settings that induce spontaneous play, and complemented with questionnaires to assess the frequency in which parents play in daily life (e.g., Majdandžić, et al., 2016).

Conceptually, all studies have paid careful attention to the operationalization of their play measure. Playfulness was operationalized in two of the studies as a global quality measure of the degree of creativity, imagination, humor, and curiosity that parents use when they play with their child (Cabrera et al., 2017; Menashe-Grinberg & Atzaba-Poria, 2017). RTP quality and reciprocity dominance were described and assessed by observation of father and child behaviors on a large number of carefully selected items (Anderson et al., 2017). Physical play was described with explicit ratings of definitions and measures (frequency, duration, or quality) in the meta-analysis (StGeorge & Freeman, 2017). Quality and intensity of "activation" were studied as separate measures using a task inducing both physical and pretend play (Ahnert et al., 2017).

A noteworthy difference in conceptualization between the studies is the extent to which the play measures reflect relatively pure parental behavior versus the relationship with the child. The operationalization of playfulness (Cabrera et al., 2017; Menashe-Grinberg & Atzaba-Poria, 2017) is more a measure of parent behavior whereas activation intensity and quality (Ahnert et al., 2017), as well as RTP quality and reciprocity dominance (Anderson et al., 2017), explicitly include behaviors of the child in the play measures. In the latter cases, the play measure is arguably a good and important estimate of the quality of the parent-child play relationship, but the child's contribution to the measure may inflate associations with child outcome. An important next step is therefore to assess how characteristic the play behavior is of the parent, for instance, by exploring consistency of the play measure across siblings.

The conceptualization of physical play is addressed in the meta-analysis (StGeorge & Freeman, 2017) by ranking studies according to the explicit inclusion of RTP, playfulness, positive affect, and role reversal in their operationalization. This rank (i.e., quality) of the definition, however, did not appear to influence the strength of the associations with child outcomes, lead-

ing StGeorge and Freeman (2017) to suggest that the excitement and arousal of the physical interaction may be more important than the play-fighting element. However, Anderson et al. (2017) showed that Chinese fathers' reciprocity dominance is a stronger predictor of less child aggression than the quality of RTP assessed in a more comprehensive manner. These findings demonstrate the importance of careful identification and operationalization of key elements of play to gain knowledge about what aspects of play influence which child outcomes, ultimately increasing our understanding of the mechanism by which play affects child development.

CULTURAL CONSIDERATIONS

This set of studies is exceptional in that all samples are from different countries and backgrounds, including 111 Israeli fathers and mothers (Menashe-Grinberg & Atzaba-Poria, 2017), a U.S. sample consisting of low-income African American ($n = 35$), Latino ($n = 19$), and other ($n = 19$) fathers and mothers (Cabrera et al., 2017), 42 Chinese middle-class fathers from two-parent families (Anderson et al., 2017), a large sample of 300 Austrian fathers, 70 mothers, and some German fathers ($n = 30$), the latter with adverse backgrounds (Ahnert et al., 2017), and in the meta-analysis (StGeorge & Freeman, 2017), 16 samples from five different Western countries. Given the difficulty of recruiting fathers for research (cf. Cabrera et al., 2014), even more so for observational than for questionnaire research and in non-Western than Western countries, it is clear how much effort the researchers have made to collect their data.

Despite widespread acknowledgment of the importance of culture in child development (Quintana et al., 2006), which is reflected in the Editors' invitation of researchers from such a diversity of countries for this special issue, most researchers in Western countries (Henrich, Heine, & Norenzayan, 2010) refrain from addressing the cultural meaning and implication of their measures. In general, the further the study sample is from the United States (in location or values), the more carefully cultural adaptations of the measures are carried out and described. The study by Anderson et al. (2017) is an excellent example of thoughtful measurement development (i.e., the new construct of reciprocity dominance), and adaptation to another culture than the one in which the measure was developed, with explicit discussion of cultural differences (i.e., Chinese fathers appear to be verbally and physically less exuberant during physical play).

The question arises as to what extent the results from the current studies can be generalized to other cultures. Is child vocabulary also positively affected by Chinese fathers' quality of pretend play? Is reciprocity dominance during fathers' RTP also linked to less child aggression in Israel? Does Austrian fathers' playfulness also moderate their sensitivity and structuring to predict lower child negativity? It is likely that each of these studies taps universal processes in child development, at least across cultures where parent-child play is prevalent and viewed as a medium for social and cognitive development (Roopnarine & Davidson, 2015). Cross-cultural research has shown that different types of play show

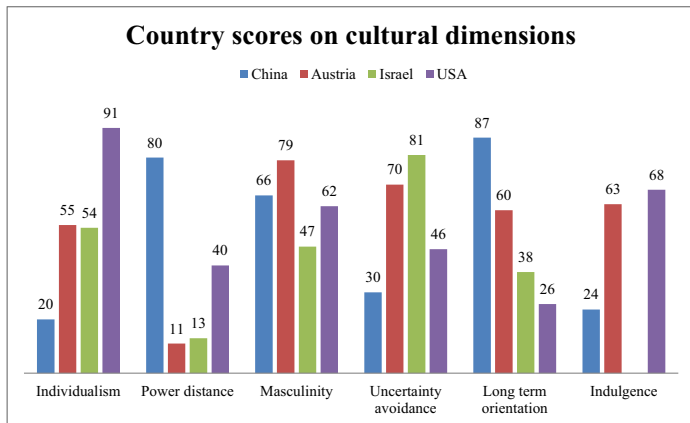


FIGURE 1. Country scores on cultural dimensions.

differences across cultures in prevalence and meaning. For example, the review by Roopnarine and Davidson (2015) indicated that RTP occurs at relatively low frequencies in non-Western cultures, suggesting that it is not a valued aspect of play and, relevant to the playfulness construct, that symbolic and fantasy play also occur at different rates across cultures.

Socialization goals have been explored as parents' psychological mechanisms through which culture translates into parenting behavior, including play (e.g., Keller et al., 2006). For instance, the low frequency of RTP in non-Western cultures may be because RTP violates goals emphasizing relatedness, sharing and cooperation in such cultures (Paquette, 2004; Roopnarine & Davidson, 2015). The emphasis on autonomy, competition, and assertiveness in Western cultures may explain the higher prevalence of RTP in these cultures (Paquette, 2004). Socialization goals, in turn, are likely to be affected by broader cultural dimensions characterizing countries (Hofstede, Hofstede, & Minkov, 2010). The dimensions of cultural orientation developed by Hofstede, Hofstede, and Minkov (2010) have recently been linked to cross-cultural differences in child temperament (Putnam & Gartstein, 2017), but links with socialization goals, parenting behaviors, and play are even more likely (Gartstein & Putnam, in press). Figure 1 presents the scores of the countries from which the samples of the four empirical studies have been drawn, on six dimensions of cultural orientation: individualism, power distance, masculinity, uncertainty avoidance, long-term orientation, and indulgence. As can be seen, even these developed countries show large differences. For example, the United States score very high on individualism, emphasizing caring for self and direct family, whereas the low scores of China reflect a high collectivist orientation, reflecting interdependence within the larger group. Austria's high scores on masculinity reflect a society driven by competition, achievement, and success whereas Israel tends toward more femininity, where the dominant values are caring for others and quality of life.

These cultural dimensions are expected to affect parenting goals, which affect parents' behaviors and, in turn, the prevalence and meaning of specific types of play by mothers and fathers. For

example, the collectivist orientation of China may translate into goals that emphasize cooperation and relatedness (Anderson et al., 2017), perhaps explaining why almost half of Anderson et al.'s (2017) Chinese fathers did not engage in RTP. The high scores on masculinity in Austria, reflecting a competitive society, might explain why Austrian fathers' mean scores on activation intensity were relatively high (i.e., >3 on a 5-point scale). Thus, it is important to continue investigating the relations between parenting, including play, and child development in different countries, preferably via cross-cultural comparisons, while taking into consideration the challenges of such efforts (Lansford et al., 2016).

CONNECTING THE STUDIES

Despite the available knowledge base on the relations between play and child development (Lillard et al., 2013; Roopnarine & Davidson, 2015), the number of different domains of child development that appear to be linked to fathers' play in the studies in this special issue is striking. The empirical studies show direct relations between fathers' play and better subsequent vocabulary skills (Cabrera et al., 2017), less child negativity (Menashe-Grinberg & Atzaba-Poria, 2017), less internalizing problems (Ahnert et al., 2017), and less aggression (Anderson et al., 2017). The meta-analysis of StGeorge and Freeman demonstrates relatively strong associations with social competence, and weaker or less consistent associations with emotional skills, self-regulation, and aggression. The findings of StGeorge and Freeman (2017) suggest that definition, measurement, and settings of physical play seem relatively unimportant in predicting child outcome. Nevertheless, the studies in this special issue together reveal that specific aspects of play affect specific domains of child development, and propose mechanisms explaining these links. Father-child reciprocity dominance during RTP is thought to reduce child aggression by teaching the child prosocial dominance strategies (Anderson et al., 2017). Fathers' quality of pretend play is assumed to enhance child vocabulary by the use of new words and symbols inherent in such play (Cabrera et al., 2017). The discussion of specific mechanisms linking playfulness to less child negativity (Menashe-Grinberg & Atzaba-Poria, 2017), and activation quality to less internalizing problems (Ahnert et al., 2017), is less elaborate. Relevant to the latter, we recently found that fathers' observed challenging parenting behavior in early childhood predicts less subsequent child anxiety symptoms, and as an explanation, we proposed that challenging parenting behavior provides children with opportunities to push their limits, to practice coping with challenging situations, and to experience that arousal can be associated with positive situations (Majdandžić, de Vente, Colonesi, & Bögels, 2017). The next step in play research will be to longitudinally study the proposed mechanisms as mediators in the links between paternal play and child outcomes (e.g., prosocial dominance strategies as a mediator between reciprocity dominance and child aggression).

Two of the studies investigated indirect effects of paternal play. Cabrera et al. (2017) suggest that their results imply that a highly playful father can compensate for a low-playful mother

in predicting subsequent vocabulary skills, but not emotion regulation. Conversely, we found that mothers' challenging parenting behavior can compensate for a less challenging father in predicting child anxiety symptoms (Majdandžić et al., 2017). Addressing covariation between parenting dimensions within parents, Menashe-Grinberg and Atzaba-Poria (2017) identified playfulness as a critical dimension in fathers' parenting, necessary along with sensitivity and structuring to prevent child negativity. In contrast, mothers' lack of playfulness can be compensated by high sensitivity, structuring, and nonintrusiveness (and vice versa) in predicting child negativity. Addressing cross-parental effects, within-parent covariation between parenting dimensions, and interactions between different paternal and maternal parenting behaviors are important to illuminate joint family processes in child development. Such efforts also should explore differences in child susceptibility to the beneficial effects of play (Belsky & Pluess, 2009). For instance, we found tentative evidence that children high in fearful temperament are more susceptible to the buffering effects of fathers' challenging parenting behavior than are low-fearful children (Majdandžić et al., 2017).

Given the significance of fathers' play, it is important to explore it in relation to personal and contextual factors. The studies addressing this issue yielded conflicting results: robustness of fathers' activation quality to their own personality and parenting stress (whereas mothers' activation quality was affected by her neuroticism and parenting stress), but not to fathers' own disadvantaged childhood experiences (Ahnert et al., 2017); and susceptibility of fathers' (but not mothers') playfulness to education and income (Cabrera et al., 2017), and to mothers' democratic parenting (Anderson et al., 2017). Regarding more proximal correlates of paternal play, fathers' play quality seems to be positively related to fathers' own sensitivity and structuring, to joint parental supportiveness, and to the child's age, mental development, effortful control, and positive affect, and, not surprisingly, negatively related to child negativity assessed in the same task. Together, these results suggest that fathering, compared with mothering, may be less strongly affected by personal factors such as own personality and stress (except extreme childhood adversity), but more by external contextual factors (Cabrera, Fitzgerald, Bradley, & Roggman, 2014).

The results of the studies also inform the debate on fathers' versus mothers' parenting roles, as reiterated by Cabrera et al. (2017), in which three positions emphasize similarities, differences, or complementary roles for fathers and mothers (Cabrera et al., 2017). The studies in this special issue that included both mothers and fathers found equal levels of quality of pretend play for fathers and mothers (in Israeli parents, Menashe et al., this issue; in low-income U.S. parents, Cabrera et al., 2017), and of activation intensity and quality (in Austrian parents, Ahnert et al., 2017). This supports the similarity position and demonstrates that when asked and observed to play in a specific structured setting, mothers and fathers are able to show pretend and physical play of equal quality. These results are in line with results from our own work showing similar levels of observed challenging parenting behavior

for fathers and mothers at child age 4 months, 1 year, and 2½ years (Majdandžić et al., 2016). However, at age 2½ years, fathers showed more physical, but not verbal, challenging parenting behavior than did mothers, suggesting that interparental differences may increase with child age and that fathers and mothers may show differences on specific components of play. We (Möller, Majdandžić, de Vente, & Bögels, 2013) and others (e.g., Paquette, 2004) have suggested that such differences may have an evolutionary basis.

Evidence of similarity in levels of play quality or intensity assessed in play settings at home or in the lab does not reveal whether fathers and mothers actually engage equally often in such behaviors in their daily life with their child. Parents' capacity for play is not necessarily equal to the actual manner in which they constitute their child's developmental niche. Such engagement remains relevant to assess, given the changing roles of fathers and mothers in their children's lives (Fagan, Day, Lamb, & Cabrera, 2014). Maternal and paternal roles also are illustrated by the findings of differences between paternal versus maternal effects (Menashe et al., 2017), and cross-parental effects (Cabrera et al., 2017) on child development. This supports the complementary position in the fathering versus mothering debate; fathers and mothers in the cultures studied seem to show similar levels of play, or at least play equally well on measures of play quality, but the effects of their parenting behavior on child development may differ, and their joint effect explains additional variance in child behavior.

DIRECTIONS FOR FUTURE RESEARCH

Now that research on fathering has become an established area of inquiry, the contribution of fathers to child development is indisputable. Theories on fathering have fruitfully inspired the development of new constructs and measures, many of which were used in the current studies. However, after perhaps a century of an almost exclusive focus on mothering, several current researchers on fathering have tended to shift the focus to fathers, ignoring mothers. Since the father-inspired measures of play are relatively new, their correlates and consequences should be investigated in mothers as well. In addition, the promising associations demonstrated between paternal play and child outcomes (all studies in this special issue), the differences in effects of fathers' versus mothers' play quality (Menashe & Atzaba-Poria, 2017), and the significant cross-parental effects (Cabrera et al., 2017) signify the importance of including both fathers and mothers in future investigations on play. Such future investigations should not only address interparental differences in direct effects on children's outcomes (fathers' parenting and mothers' parenting as separate predictors), but also simultaneous effects (fathers' and mothers' parenting as simultaneous predictors) to assess relative impact, and joint effects (interactions between fathers' and mothers' parenting) to explore potential compensation processes.

As outlined earlier, additional venues for future research include assessing mediators that help illuminate expected pathways between specific types of play and child outcomes. These pathways should be assessed longitudinally by asking, for example, whether playfulness affects subsequent emotion regulation via increased metacognition, whether reciprocity dominance affects less subsequent aggression by improvements in social strategies, or whether activation quality or challenging parent behavior affects subsequent anxiety via reduced psychophysiological reactivity. Parents' own other parenting behaviors as well as those of the other parent also are relevant moderators to address, and child temperament should be investigated as a marker of differential susceptibility to play.

To test the robustness of play, different types of play should be investigated in relation to proximal contextual factors such as parents' personality, parenting stress, and psychopathology, as well as to more distal factors such as socialization goals or the country's cultural orientations. Robustness of play also should be confirmed by testing consistency across settings and children (i.e., siblings). Care should be taken to separate fathers' influence from the child's own contribution to the play measure and child outcome. Last, universality versus relativity of fathers' and mothers' play frequency, quality, and effects should be addressed in cross-cultural studies (Roopnarine & Davidson, 2015), paying attention to the operationalization of culture (e.g., using the cultural dimensions of Hofstede et al., 2010), measurement invariance and biases, disentangling effects within and between countries, and balancing emic and etic perspectives (Lansford et al., 2016).

CONCLUSION

The findings of these studies yield additional evidence that fathers make an important contribution to their children's development, and differently so than do mothers. As such, they underscore the importance of the actions outlined in *The State of the World's Fathers: Time for Action* report (Heilman et al., 2017) to increase fathers' involvement across the world, which is much lower worldwide than is mothers' involvement. Actions are directed at policy changes to offer equal, paid, nontransferable parental leave for all parents, promotion of gender-equitable parenting, training of health sector staff to engage men as caregiving partners, and teaching children the value of care regardless of gender. The findings of the studies in this special issue also suggest that play is a promising candidate for interventions because it is universal and fun; easy to implement in daily family life, parenting programs, or therapeutic settings; and a cost-effective and enjoyable way to support child development.

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