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Imaginary Companions and Young Children's Coping and Competence

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Abstract

Imaginary companions (ICs) are purported to bolster children's coping and self-competence, but few studies address this claim. We expected having/not having ICs would distinguish children's coping strategies and competence less than type of companion (i.e., personified object or invisible friend) or quality of child-IC relationship (i.e., egalitarian or hierarchical). We interviewed 72 3- to 6-year-olds and their mothers about children's coping strategies and competence; teachers rated competence. Mothers reported ICs. IC presence and type did not differentiate coping strategies, but children with egalitarian relationships chose more constructive/prosocial coping strategies, and teachers rated them more socially competent than children with hierarchical child-IC relationships. Mothers related ICs to cognitive competence. Findings highlight (a) modest relations between imaginary relationships and coping/competence, (b) distinctions between mothers' perceptions and IC functions, and (c) that ICs parallel real relationships in that different dimensions (presence, type/identity, and relationship quality) might be unique contributors to children's socioemotional development.

Keywords: imaginary companions, coping, competence, relationships

Imaginary Companions and Young Children's Coping and Competence

Over the course of childhood and adolescence, up to 65% of children, and possibly more, create imaginary companions (ICs) in some form (Pearson et al., 2001). The prevalence of these creations across development and their manifestations as pseudo-relationship partners (Gleason, 2013) suggests that they may play an important role in development. However, the variety of forms and the richness of the details that children provide about their ICs make systematic descriptions of their functional significance rather challenging (Taylor, 1999; Taylor & Carlson, 2002). Instead, most studies focus on differences between children with and without ICs (Bouldin & Pratt, 2002; Manosevitz, Prentice, & Wilson, 1973; Taylor & Carlson, 1997) and in fact, Nagera (1969) has suggested that the mere presence of an IC in a child's life, rather than its details, is most revealing with respect to social functioning. In particular, he and others emphasized ICs' role in helping children and adolescents cope with stress, fears, anxiety, and trauma in both pathological and nonpathological contexts (Benson & Pryor, 1973; Bouldin & Pratt, 2002; Silberg, 1998; Taylor, Carlson, & Shawber, 2007). Similarly, children might use ICs to promote their own competence, protecting their positive self-representations as they face new challenges (Benson & Pryor, 1973; Coetzee & Shute, 2003; Harter & Chao, 1992).

In work connecting ICs to coping and competence, ICs tend to be conceptualized either as filling a void in the child's socioemotional life and/or supporting ill-equipped children navigating developmental transitions. Either way, the stereotypical image of a child with an IC is unflattering. Yet many claims about children with ICs come from work with clinical populations, in which children create ICs in conjunction with psychopathology, or from empirical studies lacking in rigor (Taylor, 1999), not to mention children spanning a wide age range. Our primary

goal was thus to test the theoretical connections between coping and competence and ICs in a sample of typically-developing 3- to 6-year-old children. In this age group, ICs are often studied and are not associated with psychopathology (Silberg, 1998; Taylor, 1999).

Our secondary goal was to consider whether Nagera (1969) was right to emphasize the presence of ICs in lieu of the details of the fantasy. After all, ICs are often conceptualized as relationship partners (Gleason, 2002; Gleason, Sebanc, & Hartup, 2000), and certainly the impact of real social ties is not limited to their mere presence/absence. Moreover, the literature shows enormous within-group variation (Taylor, 1999), in that ICs come in all species, sizes, ages, and genders—tailor-made for the children who create them. A comprehensive approach to understanding the role of ICs in children's coping and competence thus might include a) comparisons of children who do/do not have ICs, b) relations to the identity (i.e., types) of children's ICs, and c) investigation of the relationships that children form with their ICs. These three levels have each been demonstrated to influence child outcomes differently in the case of real friendship (Hartup, 1996), and we expected them to likewise shed differential light on the role of ICs in coping and competence.

Coping and ICs

We considered three possibilities for how ICs and coping are connected in young children. First, some literature suggests that ICs are created as a way of coping with social deficits or emotional problems. Children's ICs are purported to help manage stress and anxiety (S. Bach, 1971; Shavel-Jessop & Segal, 2005), compensate for real or perceived disabilities (Bender & Vogel, 1941), or provide a missing relationship (Benson & Pryor, 1973). However, these studies are mostly clinical cases (Benson & Pryor, 1973; Nagera, 1969). Given that we

were interested in ICs of typically-developing children, which are associated with positive social and cognitive outcomes (Singer & Singer, 1990; Taylor, 1999), we did not feel this literature could inform our hypotheses.

The second possibility we examined for how coping and ICs might be related came from empirical work suggesting that adolescents with ICs have better coping skills than their peers, including seeking support from others, engaging in self-distraction, or forgetting the problem (Seiffge-Krenke, 1997; Taylor, Hulette, & Dishion, 2010). Similarly, in a descriptive study of 10-year-olds with ICs, Hoff (2004-2005) describes examples of ICs helping children manage social difficulties and monitor their own behavior. We hypothesized that such skills might be present earlier in development if ICs were a sign of social competence rather than social deficits, a view supported by research on preschoolers with ICs. For example, in comparison to their peers, young children who create ICs might have greater social understanding (i.e., awareness of others' mental states, use of those states to predict behavior; Davis, Meins, & Fernyhough, 2011; Taylor & Carlson, 1997) and show higher cooperation with peers and adults (Singer & Singer, 1990). Consequently, we predicted that children with ICs would outperform peers in problem-solving and emotion regulation, and avoid coping via aggression or withdrawal.

Our third consideration was whether differences in coping skills might be less a function of IC presence and more related to type of companion and/or relationship imagined. Children might create the quality of imaginary relationship they particularly need (e.g., Harter & Chao, 1992). For instance, a younger IC that is needy or frightened might assist children in coping with anxiety and feelings of powerlessness (Hoff, 2004-2005; Sadeh, Hen-Gal, & Tikotzky, 2008). Other ICs might provide practice in navigating challenging peer interactions (Gleason &

Hohmann, 2006; Hoff, 2004-2005), and Taylor et al. (2007) have suggested that children who create truculent ICs might be preoccupied by themes of misbehavior and punishment.

We examined two types of ICs: invisible ICs, often referred to as invisible friends (IFs), and personified objects (POs; i.e., stuffed animals, dolls, or other objects animated and given personality by the child); and two kinds of relationships: hierarchical (child is in charge) or egalitarian. Among young children, IFs often afford egalitarian relationships whereas POs afford hierarchical ones (Gleason et al., 2000). Therefore, although we included them as separate variables, we expected IC type and relationship to be confounded. We hypothesized that practice in these different types of relationships could result in distinctions in children's coping. Egalitarian relationships are characterized by reciprocity and thus, children in such relationships might be practicing cooperation and compromise, and theoretically might develop some expertise in coping skills related to problem-solving. In contrast, hierarchical relationships afford a context for nurturance and the exertion of control. Imagining such a relationship might facilitate coping skills that tap power assertion and in which regulation of emotion is a primary goal. We predicted that IFs would relate to coping that was high in friendliness and problem-focused and POs would be linked to coping characterized by emotional control and assertiveness.

Competence

As in the literature on coping, references to children's use of ICs in relation to competence are found in both clinical case studies and quantitative research comparing children with and without ICs (L. Bach, Chang, & Berk, 2001; S. Bach, 1971; Benson & Pryor, 1973; Coetzee & Shute, 2003). The findings are somewhat mixed. On the one hand, teachers have rated children with ICs as less competent than their peers (Harter & Chao, 1992), but on the other

hand, among children low in sociability, those with ICs showed better social skills relative to those without (L. Bach et al., 2001). Neither finding has been replicated.

The discussion regarding how ICs help with issues of mastery and competence focuses on relationships children create with companions. In particular, children who create hierarchical relationships might do so in order to enhance their own feelings of competence (Benson & Pryor, 1973; Harter & Chao, 1992). Caring for an incompetent, infantile IC might bolster self-esteem by emphasizing the relative competence of the child or through favorable social comparison (Coetzee & Shute, 2003). For other children, a superordinate IC might afford emulation and identification. Harter and Chao (1992) found a relation between these different kinds of ICs and gender, in that girls nurtured their companions and boys' companions were powerful; however, Coetzee and Shute (2003) did not replicate this finding.

In making predictions about the relation between ICs and competence, we attempted to replicate Harter and Chao's (1992) finding that teachers perceive children with ICs as less competent than their peers. Although parents' ratings of their children's competence have not been studied in relation to ICs, we hypothesized that parents of children with ICs—who tend to be neutral to positive about their children's creations (Gleason et al., 2000; Manosevitz et al., 1973)—would perceive their children as precocious, and thus rate them as more competent than parents of children without ICs. We did not expect to find variation according to children's ratings, because children typically rate themselves as competent in every domain (Harter & Pike, 1984). Finally, as in our hypotheses regarding coping, we predicted that competence differences between groups would more likely relate to type of IC and/or nature of the child-IC relationship than to presence or absence of such friends. Specifically, we thought children with IFs and/or

egalitarian relationships might be rated higher on competence by parents and teachers than children with POs and/or hierarchical relationships. Children with egalitarian IFs have slightly more sophisticated relationship understanding than children with POs (Gleason, 2002), and these differences might be reflected in their competence ratings.

Method

Participants

Participants were 72 children (37 boys, M_{age} = 4.04 years, *SD* = .78 years) and their mothers and teachers (*N* = 24) recruited through program directors of eight preschools and kindergartens. Mothers' average age was 35.68 years (*SD* = 6.34 years) and fathers' was 38.29 years (*SD* = 5.40 years). Most families were intact (84.5%), of Caucasian background (77.8%, 6.9% Asian, 4.2% African-American, 2.8% Latino, 2.8% other, 5.6% not reported), college educated (66.7% of mothers, 68% of fathers), and of the 62.5% reporting income, most were middle class (75.5% yearly income > $50,000/year). On average, children had 17.70 months (*SD* = 15.24 months) of experience in care outside home. Fourteen percent were only children, 48.6% had one sibling, 29.2% had 2 siblings, and 8.4% had more than 3 siblings; 43.1% were firstborn.

Measures

Imaginary companions. Information on ICs was obtained from mothers. Although many studies of ICs interview both mothers and children, we did not because a) other measures made significant demands on children and b) some questions (e.g., regarding relationship quality) benefitted from the mothers' perspectives on ICs across time and situation. This method may have compromised our accuracy in identifying children with ICs or describing them, so we interpret our results with these caveats in mind.

Using a survey, mothers were asked if their children had IFs using a definition from Svendsen (1934):

> An invisible character, named and referred to in conversation with other person or played with directly for a period of time, [at least one month], having an air of reality for the child but no apparent objective basis. This excludes that type of imaginative play in which an object is personified, or which the child himself assumes the role of some person in his environment" (p. 988).

They were also asked, "Does your child have a personified object which s/he is fond of, such as a doll or stuffed animal that s/he seems to treat as animate (e.g., Winnie the Pooh)?" Mothers who checked "yes" for either question were then asked to provide descriptions, which were used to differentiate personified from transitional objects. Objects categorized as POs had personas and engaged in activities beyond just providing comfort. Two coders classified each description with 96% agreement; discrepancies were resolved by discussion. Mothers answered questions (yes/no/don't know) relevant to the child-IC relationship from Gleason et al. (2000). Nine questions were summed to create a *relationship quality* variable, wherein higher scores meant a more hierarchical relationship (i.e., the child cares for, teaches, disciplines, guides, and praises the IC, includes IC in play [reversed], IC-child relationship is egalitarian [reversed], child is in charge, and IC is in charge). The resulting variable ranged from 0 to 8 (M = 5.00, SD = 2.18, Cronbach's alpha = .69). Because of the uneven distribution of scores, we categorized each child-IC relationship as primarily egalitarian or primarily hierarchical using a median split.

Mothers were asked why they thought their child created an IC and to provide a description of the companion. Answers to these open-ended questions were transcribed and

combined for coding, as responses overlapped. *Reasons for creation* were coded as yes/no for whether they were mentioned, and included (a) for a friend/play, (b) for comfort, (c) to have a subordinate, (d) because of a traumatic event, and (e) other (e.g., low frequency responses that did not fit another category, such as "she is creative"). Whether multiple reasons were provided was also noted (yes/no). Three undergraduate research assistants independently coded all open-ended questions. *Kappas* were above .71 for all variables except multiple reasons, so that variable was dropped. Disagreements were resolved by discussion.

Coping: Child interviews. Children's coping was assessed using a set of hypothetical social situations in two ways: a) enacted with puppets, eliciting open-ended responses, and b) using line drawings, with the child choosing among five coping strategies for each scenario.

Puppet scenarios. The puppet interviews elicited children's open-ended responses to four hypothetical scenarios (from Eisenberg, Fabes, Minore, et al., 1994): (a) a peer ridicules the child's art work, (b) the child accidentally knocks over a peer's block tower, (c) a peer intentionally knocks over the child's block tower and says the child can not play with the blocks, and (d) two peers tell the child that he/she can not play with them because they only have two toys. An example vignette is: "One day you are building a tall tower with blocks. This other kid comes right over and knocks down your tower, crash, and says 'Hey (name), I was playing with these before and you can't play with them now.' What would you do?" If needed, the experimenter asked, "What would you do next?" and then, "Show me."

Following Eisenberg, Fabes, Minore, et al. (1994) and Mize and Ladd (1988), we rated children's responses for each scenario on *friendliness*, or the extent to which the outcome was prosocial or hostile for a peer (5 = very friendly to 1 = very aggressive/hostile), and

assertiveness, or the extent to which the child actively dominated or passively withdrew from a peer (5 = very assertive to 1 = very passive). Scores were averaged across the four scenarios. Inter-coder reliability (*kappa*) on the friendliness and assertiveness scales was .78 (range: .65 - .87) and .83 (range: .77 - .88) respectively.

Children's responses were transcribed and fell into nine categories: *problem-solving* (e.g., "Let's take turns"), *aggression* (e.g., throwing the blocks away), *self-assertion* (*e.g.,* "I was playing with them"), *venting* (e.g., crying), *do nothing* (e.g., "I would do nothing"), *withdrawal* (e.g., "leave"), *distraction* (e.g., "I'll make another picture"), *laugh,* and *hug.* Average Cohen's kappa between independent coders was .94 (range: .82 - 1.00), based on 30% of randomly selected cases. Reliabilities for *withdrawal*, *laugh* and *hug* were not computed because of low frequency. *Withdrawal* was combined with distraction*; laugh* and *hug* were dropped.

Line drawings. Vignettes were also presented through line drawings. Children were asked to choose what they would do among five cards that illustrated possible reactions: (a) *aggression* (i.e., hitting the peer); (b) *venting* (i.e., crying); (c) *social support* (i.e., telling an adult or parent); (d) *constructive coping* (i.e., request or provide explanation); and (e) *doing nothing*. These responses were taken from the literature (Eisenberg, Fabes, Karbon, Poulin, & Hanish, 1993; Eisenberg, Fabes, Nyman, Bernzweig, & Pinuelas, 1994) and corresponded loosely to those used in maternal reports of coping (see below).

Data reduction. We reduced combined the responses from the puppet interviews and the line drawings by standardizing all averaged scores into *z*-scores and correlating items from the puppet interviews and line drawings that were theoretically overlapping (e.g., problem-solving from the puppet interviews and constructive coping from the line drawings, which correlated

$r(67) = .37$, $p < .002$ and formed the variable *solution generation*). *Venting* and *withdrawal* rarely occurred and were dropped. Five coping variables were included in the final analyses: *solution generation, aggression, do nothing, self-assertion, and social support*.

Coping: Maternal reports. Mothers completed two scales on children's coping developed by Eisenberg (cf. Eisenberg et al., 1993). One assessed general coping whereas the other included three hypothetical scenarios about everyday stressful events, two from Eisenberg, Fabes, Nyman, et al. (1994; child is being made fun of, child is excluded from playing) and one created for this study (child accidentally broke a favorite toy). Using a 7-point scale (1 = not at all likely; 7 = extremely likely), mothers rated children's likelihood of using 14 strategies for the global scale and 10 for the scenarios.

Following Eisenberg et al.'s (1993) procedure, items from both scales were standardized and combined to form six coping variables: (a) *Distraction/avoidance* (α = .81); (b) *aggression* (α = .93); (c) *venting* (α = .89); (d) *seeking support* (α = .79); (e) *instrumental coping* (α = .77); and (f) *cognitive restructuring* (α = .80). A principal component factor analysis with varimax rotation yielded two factors accounting for 59% of the variance. Cognitive restructuring (.69), distraction/avoidance (.70), venting (-.67), and aggression (-.62) loaded on *emotion-controlled coping*; high scores indicated attempts to address frustration in an emotionally controlled way. Seeking support (.90) and instrumental coping (.79) loaded on *problem-focused coping*; high scores indicated the child took action to address frustrating situations.

Competence. We used the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) to assess cognitive and social competence. Each subscale consists of 6 averaged items scored on a 4-pt scale, but one item

from each scale was excluded as inappropriate (cognitive: *gets stars on papers* and social: *has sleepovers*). Mothers and teachers completed a paper-and-pencil version also on 4-point scales (1 = not very true, 2 = sort of true, 3 = pretty true, 4 = really true). Cronbach's alphas were .67 (social) and .74 (cognitive) for children and ranged from .75 to .87 for adults.

Procedure

Teachers distributed invitation letters and consent forms to mothers; interested families returned consents and received questionnaires at school, usually returning them within a month. Teachers knew the study was about ICs but did not know the hypotheses and were not told the IC status of children. Children were interviewed soon after consents were received.

Children were tested at school by an experimenter blind to the child's IC status. The procedure was completed in two visits with a 2-3 week interval. The coping measures (puppet interview, line drawings) were administered at different visits and were counterbalanced. Vignettes were ordered randomly. The competence scale was administered during the second visit and always after the coping measure. Parents were informed after each session through a note sent home with the child.

Interview procedures followed those used by Mize and Ladd (1988) and Eisenberg, Fabes, Minore, et al. (1994). During puppet interviews, children were presented with puppet families from different ethnic groups and asked to choose one to represent themselves. The experimenter played the other parts in scenarios using a script and helped the child act it out with props. Children's responses were tape-recorded and the experimenter repeated the child's responses and summarized the child's actions. Line drawings were verbally described to the children. The experimenter prompted the child to identify with a figure on the drawing, saying,

"Let's pretend that you are this person today," and then asked children to choose the drawing showing what they would have done in that situation.

Results

Descriptions of ICs

Based on maternal report, we categorized 7 children (9.7%; 3 girls and 4 boys) as having IFs, 20 (27.8%; 9 girls and 11 boys) as having POs, 5 (6.9%; all girls) as having both, and 40 (55.6%; 18 girls and 22 boys) as having none. For children with both types of IC, only data from IFs were used so as to be consistent with past research (Gleason et al., 2000). Children were thus categorized into one of three groups for analyses: IF (n = 12), PO (n = 15) and no IC (n = 40).

We began our analyses by examining the descriptive information obtained from mothers on children with and without ICs in terms of demographic variables, type of ICs (i.e., IF or PO) and qualities of relationships children created with ICs (i.e., egalitarian or hierarchical).

Demographics. No differences between children with and without ICs emerged on any demographic variables, including gender and age. However, as in previous research (Gleason et al., 2000), children whose mothers reported ICs were marginally more likely to be firstborn/only children (53.1%) in comparison to children without ICs (35%), $\chi^2(2, N = 72) = 5.41, p = .067$. Of all middle-born children (n = 9; 12.5% of the total sample), only one had an IC (personified object). Children with and without ICs did not differ on number of siblings.

Comparisons by IC type and IC-child relationship quality. Children whose mothers reported IFs and POs were compared on items related to relationship quality and reasons for the IC's creation. No differences emerged for relationship quality. A greater proportion of POs (41.2%) than IFs (0%) provided comfort $\chi^2(1, N = 28) = 6.04, p = .014$ or were described in

terms classified as "other," (POs: 47.1%, IFs: 9.1%) $\chi^2(1, N = 28) = 4.41, p = .036$. No differences emerged for the proportions of mothers explaining their children's creation of ICs in terms of friendship, having a subordinate, or trauma. According to mothers, children with egalitarian versus hierarchical IC relationships did not differ on reasons for creation.

Examples of ICs. Descriptions of a few ICs are displayed in Table 1 by companion type (IF, PO) and child-IC relationship quality (egalitarian, hierarchical). We ran a chi-square analysis comparing companion type and relationship quality and, contrary to our expectations, found no significant relationship $\chi^2(1, N = 28) = .48, p = .488$. These variables also did not differ by gender; as a result, and because of the small sample, we did not conduct analyses within gender.

Coping

Comparisons by IC status. Our first hypothesis was that children whose mothers reported ICs would demonstrate more positive coping styles than children whose mothers did not. We also predicted that children with IFs would score highest on coping skills related to problem-solving and that those with POs would score highest on coping skills related to emotional control. We performed a series of multivariate analyses of variance. First, we compared the children's five coping responses (solution generation, aggression, do nothing, self-assertion, social support) among the three IC groups (none, IF, PO) but found no effect, Wilks' Lambda = 0.93, $F(10, 116) = 0.46$, $p = .912$, $\eta^2 = .04$ (see Table 2 for descriptive statistics). We then checked for group differences on the emotion-controlled and problem-focused coping strategies as rated by mothers. Again, the multivariate test was not significant, Wilks' lambda = 0.91, $F(4, 136) = 1.56$, $p = .188$, $\eta^2 = .04$ (see Table 2). We had also expected coping of children with IFs to be characterized by more friendliness, and that of children with POs to include

greater assertiveness, but again, no significant differences emerged, Wilks' Lambda = 0.90, $F(4, 122) = 1.75$, $p = .144$, $\eta^2 = .05$.

Comparisons by IC relationship quality. We hypothesized that coping styles would differ as a function of the quality of relationship that mothers perceived children had with ICs, whether hierarchical or egalitarian. We expected the former to relate to emotion-controlled coping and assertiveness, and the latter to problem-solving and friendliness. These hypotheses were partially supported. Using MANOVA, we examined group differences on the five coping strategies generated from children (solution generation, aggression, do nothing, self-assertion, social support); the overall multivariate test approached significance, Wilks' Lambda = 0.74, $F(10, 108) = 1.78$, $p = .073$, $\eta^2 = .14$. Univariate tests revealed a difference only on solution generation, $F(2, 58) = 5.46$, $p = .007$, $\eta^2 = .16$. Post hoc tests (LSD) revealed that, as hypothesized, children with egalitarian ICs generated more problem-focused coping strategies than either children with no IC ($p = .014$) or children with hierarchical relationships ($p = .002$). The latter two groups did not differ ($p = .169$; see Table 3 for descriptive statistics). We repeated the analysis using mothers' ratings of emotion-controlled and problem-focused coping strategies but found no significant group differences, Wilks' Lambda = 0.99, $F(4, 128) = 0.13$, $p = .971$, $\eta^2 = .004$. Lastly, we ran a MANOVA using IC relationship type as the predictor and the friendliness and assertiveness ratings of children's coping strategies as the dependent variables. The multivariate analysis was significant, Wilks' Lambda = 0.82, $F(4, 114) = 3.02$, $p = .021$, $\eta^2 = .10$, and univariate analyses revealed group differences for friendliness, $F(2, 58) = 5.02$, $p = .010$, $\eta^2 = .15$. As expected, children with egalitarian IC relationships demonstrated greater friendliness

in the coping scenarios than children without ICs (p = .006) or those with hierarchical IC relationships (p = .004); the latter two groups did not differ (p = .513).

Competence

Comparisons by IC status. We hypothesized that mothers of children with ICs would rate them higher on competence than mothers of children without ICs, but that teachers' ratings would be the reverse and children's ratings would not relate to IC presence/absence. A MANOVA using IC status as the predictor and mothers' ratings of social and cognitive competence as the dependent variables was marginally significant, Wilks' Lambda = 0.88, F(4, 136) = 2.27, p = .065, η^2 = .06. The univariate test for cognitive competence was statistically significant, F(2, 69) = 3.96, p = .024, η^2 = .10. Post hoc tests (LSD) revealed that mothers perceived children with no IC as significantly less cognitively competent than either children with IFs (p = .02) or POs (p = .04); ratings for the IC groups did not differ (p = .56). No differences emerged for teachers' ratings of children's competence, Wilks' Lambda = 0.95, F(4, 136) = .84, p = .503, η^2 = .02, nor for children's, Wilks' Lambda = 0.95, F(4, 134) = 0.92, p = .455, η^2 = .03 (see Table 4 for descriptives).

Comparisons by IC relationship quality. We repeated the MANOVAs for mothers', teachers', and children's ratings of social and cognitive competence using IC relationship quality (none, egalitarian, or hierarchical) as the independent variable (descriptive statistics are in Table 5). An overall effect emerged for mother's ratings of children's competence, Wilks' Lambda = 0.83, F(4, 128) = 3.19, p = .016, η^2 = .09. Again, univariate tests revealed an effect for cognitive competence, F(2, 68) = 5.29, p = .007, η^2 = .14, in that mothers perceived children without ICs as significantly less cognitively competent than children with either egalitarian (p = .009) or

hierarchical IC relationships (p = .016). IC groups did not differ (p = .771). An overall effect also emerged for teachers, Wilks' Lambda = 0.85, $F(4, 128) = 2.65$, p = .037, η^2 = .08, driven by their ratings of social competence $F(2, 68) = 3.32$, p = .042, η^2 = .09. Teachers perceived children whose mothers reported egalitarian IC relationships as significantly more socially competent than children whose mothers reported hierarchical IC relationships (p = .015 using LSD). Ratings of children without ICs fell between the two IC groups; they did not differ from children with egalitarian IC relationships (p = .287) but differed marginally (LSD) from children with hierarchical IC relationships (p = .051). No differences emerged among children's ratings, Wilks' Lambda = 0.94, $F(4, 126) = 1.03$, p = .393, η^2 = .03.

Discussion

The findings suggest that maternal report of an IC in a child's social world is not, in and of itself, an indication of difficulties in coping or competence. Report of an IF or PO was not associated with particular coping strategies, and the differences that emerged for competence were only in mothers' ratings and favored children with ICs. In addition, mothers differentiated IFs and POs on some reasons for creation but not as a function of relationship quality, suggesting a disconnect between maternal reported IC type and child-IC relationship quality. With respect to coping and competence, maternal perception of the child-IC relationship appears more relevant than her report of its existence or form. Some small differences in constructive and prosocial coping strategies and teacher-rated social competence suggest that egalitarian relationships with ICs might be indicative of more sophisticated social functioning than are hierarchical ones or not having an IC. These results highlight the importance of looking beyond the mere existence of an IC to understand its functional significance.

Imaginary Companions in Early Childhood, Coping, and Competence

Our primary goal was to test the hypothesized connections between coping and competence and the creation of ICs (e.g., Harter & Chao, 1992; Nagera, 1969; Taylor, 1999). Although we had expected connections between IC status and coping strategies, in general, coping was unconnected to maternal reports of IC presence or companion type (IF or PO). However, our hypothesis that children's endorsement of problem-focused coping strategies and friendliness in solving interpersonal problems would relate to maternal report of an egalitarian child-IC relationship was modestly supported. Possibly, imagining a friend, in particular, might have given children practice in constructively and prosocially handling the social situations tapped by our coping measures. Of course, these data are correlational. Perhaps children whose ICs are friends have parents who foster both this form of imagination and positive coping strategies with peers.

The fact that egalitarian relationships, but not hierarchical ones, were somewhat associated with constructive coping is consistent with the hypothesis that imagined friendships are more sophisticated than imagined hierarchical relationships in early childhood (Gleason, 2002). Children's relationships with primary caregivers are by definition hierarchical and provide the model for future relationships (Sroufe & Fleeson, 1986). As young children develop their first egalitarian friendships, they must expand these initial relationship schemas to include typical features of friendship, such as negotiation and compromise. The skills manifested in the constructive coping strategies endorsed slightly more frequently by children with egalitarian IC relationships included discussing problems and generating mutually satisfactory solutions. These children thus are arguably using interpersonal skills employed by older children and adults.

The findings related to competence provide a similar story, in that presence or type of IC was not as linked to competence as was IC-child relationship quality. For example, the hypothesis that presence of an IC would be related to competence was marginal and linked only to maternal report of cognitive competence. This result could be explained by mothers' knowledge that their children had ICs and were participating in a study about imagination. Parents typically report neutral to positive feelings about ICs (Manosevitz et al., 1973) and might see them as a sign of intelligence. The fact that these results did not emerge in data collected from teachers suggests that the actual developmental significance of an IC might not correspond with mothers' perceptions of its meaning. Moreover, this finding was replicated and significant in the comparisons of cognitive competence by IC-child relationship quality; children with both egalitarian and hierarchical relationships were rated as higher in cognitive competence than children without ICs. The lack of relation between ICs and mothers' ratings of social competence suggests that mothers might view the creation of an imaginary companion strictly as a cognitive achievement—a sign of creativity, perhaps—rather than a social endeavor.

The differences in teachers' ratings of social competence as lower in relation to hierarchical than egalitarian child-IC relationship quality converge somewhat with earlier research. Harter and Chao (1992) found that teachers perceived children with ICs as less competent (overall) than those without ICs. However, the descriptive information in their article suggests that most of the relationships that children in their study formed with ICs were hierarchical, albeit some with the child as more competent and some with the IC in that role. The hierarchical relationships we studied were those of children whose ICs were likely subordinate to the child. The consistency in these findings suggests that hierarchical relationships with ICs

might be a function of children's attempts to enhance feelings of efficacy—an idea suggested in clinical studies as well (S. Bach, 1971; Nagera, 1969).

The notion that ICs are created because of deficits is unsupported by these data in relation to coping styles, but might have limited merit for social competence. The findings suggest that, according to teachers, children who create hierarchical relationships might be struggling socially relative to peers who create egalitarian relationships, but the difference between them and children who do not create ICs was marginal at best. Moreover, the lower social competence of children with hierarchical ICs converges with evidence that children with POs (which often provide hierarchical relationships; Gleason et al., 2000) receive more negative nominations from peers in sociometric research (Gleason, 2004a). The results call for investigation of whether some young children use hierarchical imaginary relationships to help negotiate the complexities of early peer relations. Of course, the fact that these relationship types were based on maternal report raises the possibility that if mothers are aware of their children's social skills, they may interpret their children's relationships with ICs in systematically different ways.

The Importance of Relationships

Our secondary goal was to establish whether Nagera (1969) was right to emphasize an IC's existence over the fantasy content. The findings modestly reject his proposition and instead, according to maternal report, highlight the quality of children's imaginary relationships as the better predictor of variation in children's coping strategies and competence. Perhaps this finding should come as no surprise. The literature is rife with examples of connections between young children's real friendship quality and various measures of social adjustment (e.g., Engle, McElwain, & Lasky, 2011; Ladd, Kochenderfer, & Coleman, 1996), and imaginary relationships

might operate similarly to their real counterparts (Gleason, 2013). All three dimensions of children's ICs—presence/absence, identity of the companions, quality of the relationships—thus deserve empirical attention.

The modest correspondence between maternal reports of egalitarian child-IC relationships, constructive and friendly coping, and social competence (as rated by teachers) also converges with research linking ICs to social skills. For instance, children with ICs have better emotion understanding (Lindeke & Kavanaugh, 2007), cooperativeness with peers and adults (Singer & Singer, 1990), referential communication skills (Roby & Kidd, 2008), and possibly theory of mind (Davis et al., 2011; Taylor & Carlson, 1997), than their peers. Although none of these studies examined child-IC relationship quality, some focused exclusively on invisible friends, which have often (albeit not in the present sample) been associated with egalitarian relationships (Gleason et al., 2000). At the least, the findings presented here raise the question of whether relationship quality drives the associations between ICs and social skills.

Limitations

We identified three limitations in our study. First, IC status was determined by maternal report, meaning that children who did not share ICs with mothers might have been categorized as not having them. Similarly, personified and transitional objects might have been confused in the few cases in which mothers' descriptions were ambiguous. Interviewing children would have provided richer data in some ways, but particularly for invisible friends, parents contribute a valuable perspective (Gleason, 2004b). Second, we did not measure verbal abilities, which could account for some group differences. Third, the homogeneity of these data limits generalizability.

Future Directions and Conclusions

The findings described here raise several avenues for future research. Specifically, greater attention to the nature of child-IC relationships seems warranted vis a vis how these creations function in socioemotional developmental processes. This attention could be focused, as it was here, on the structure of the relationship (i.e., hierarchical or egalitarian), or on the details of interactions imagined with ICs. For example, many children try blaming their own misbehavior on their ICs. Whether such displacement features prominently or infrequently in child-IC relationships might provide interesting information on children's efforts to explore and understand questions of obedience, misbehavior, and even morality (Taylor et al., 2007). Further exploration of the proportion of children's interactions with ICs that are devoted to parent-like provision of guidance versus play might also highlight children's efforts to cope with behavioral demands in their real social lives. Although ICs most likely do not provide a perfect mirror for children's social and emotional preoccupations, this study suggests that such imaginative activities may contribute to our understanding of early social functioning.

The correspondence between IC type (IF, PO) and relationship quality (egalitarian, hierarchical) found in Gleason et al. (2000) was not replicated here, perhaps because of differences in method (maternal report via interview vs. questionnaires). However, if IC type is not a function of relationship quality (or vice versa), an alternative for investigation might be individual differences in children's pretend play styles as object-independent or -dependent (Wolf & Grollman, 1982). IFs might be a function of an object-independent play style, in which props are not used, whereas personified objects might be associated with object-dependent styles—a hypothesis that has never been investigated.

In general, this study raises questions about whether and how ICs play a role in children's coping strategies and competence. Our approach tested for links between these ICs and socioemotional development, but we were unable to determine whether egalitarian relationships with ICs are, in and of themselves, a coping strategy for challenges in peer interactions—as is discussed in the qualitative literature. Similarly, we cannot be sure whether socially competent children simply replicate their social worlds in imagination. However, the findings imply that ICs might contribute in meaningful and differential ways to development, but these effects will not be detected—at least not fully—unless the details of the imaginary relationships themselves are examined. In fact, research that maps the quality of children's relationships with ICs to the socioemotional challenges encountered at different points in development might highlight ways in which ICs do or do not function as coping mechanisms or supporters of competence. The influence of ICs at any point in development most likely pales in comparison to those of real relationships, and yet, a thorough understanding of children's coping strategies and the development of competence might benefit from attention to these social forms of imagination.

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Table 1
Examples of Imaginary Companions by Type and Relationship Quality

Invisible friends		Personified objects	
	Egalitarian relationships		
Thomas the Tank Engine & Bob the Builder	Based on the television characters	Cindy Lou Who	Doll who replaces siblings during the day
Scotchy, Scotchy's cousin	Playmates since child has no siblings	Tigger	From Winnie the Pooh; they "play crazy"
Max	Friendly boy the same age as the child	Timmy	Animated stuffed dog; has birthday parties
George	Invisible boy who lives in the basement since his family lost their house in a fire	Pinkie	Colored blanket; misses the child when separated and stays in room to keep things safe
	Hierarchical relationships		
Juan & Deke	Friends who have changed sex; sometimes one person, sometimes separate	Bebe	Stuffed bear; hosts slumber parties for other animals. Child is Bebe's daddy.
Kaylee	Imaginary sister who often gets blame	Sunny	Yellow bear; plays board games
76 Siblings	Created by an only child for playmates	Blue Bear & Morris	Teddy bear acquired at birth and from Build-A-Bear respectively
Trina	Child's "little girl"; is sometimes fresh and doesn't always listen	Puffy; Woody & Jessie	A stuffed dog; dolls from the movie *Toy Story 2*

Table 2

Descriptive Statistics (Based on Z-Scores) for Coping Variables by Imaginary Companion Status

	No imaginary companion		Invisible friends		Personified object	
	M (*SD*)	95% CI	*M* (*SD*)	95% CI	*M* (*SD*)	95% CI
Child report	*n* = 36		*n* = 10		*n* = 19	
Solution generation	.08 (1.59)	[-.47, .64]	.57 (1.77)	[-.49, 1.63]	-.15 (1.78)	[-.92, .61]
Aggression	.05 (1.76)	[-.50, .60]	-.64 (.50)	[-1.69, .41]	.25 (1.82)	[-.51, 1.01]
Do nothing	-.01 (1.78)	[-.56, .55]	-.18 (1.46)	[-1.23, .87]	-.01 (1.50)	[-.77, .75]
Self-assertion	-.02 (.98)	[-.36, .32]	.05 (1.19)	[-.59, .70]	.10 (.98)	[-.36, .57]
Social support	-.15 (.95)	[-.48, .17]	.09 (1.02)	[-.53, .72]	.15 (1.03)	[-.31, .60]
Friendliness	3.41 (.69)	[3.15, 3.67]	3.90 (.69)	[3.40, 4.40]	3.24 (.99)	[2.88, 3.60]
Assertiveness	2.38 (1.10)	[2.00, 2.77]	2.40 (1.33)	[1.67, 3.13]	2.93 (1.14)	[2.41, 3.46]
Mother report	*n* = 40		*n* = 12		*n* = 20	
Emotion-controlled	-.09 (1.06)	[-.40, .22]	.54 (.87)	[-.02, 1.11]	-.14 (.88)	[-.58, .30]
Problem-focused	.02 (.94)	[-.30, .33]	.29 (.96)	[-.29, .87]	-.21 (1.14)	[-.65, .24]

Note. Sample sizes vary owing to missing data.

Table 3

Descriptive Statistics (Based on Z-Scores) for Coping Variables by Imaginary Companion Relationship Quality

	No imaginary companion		Egalitarian relationship		Hierarchical relationship	
	M (*SD*)	95% CI	*M* (*SD*)	95% CI	*M* (*SD*)	95% CI
Child report	*n* = 36		*n* = 10		*n* = 15	
Solution generation	.08 (1.59)	[-.44, .61]	1.51 (2.08)	[.52, 2.50]	-.59 (1.05)	[-1.40, .22]
Aggression	.05 (1.76)	[-.47, .57]	-.48 (.67)	[-1.47, .51]	-.19 (1.47)	[-1.00, .62]
Do nothing	-.01 (1.78)	[-.55, .53]	-.56 (.88)	[-1.58, .46]	.09 (1.52)	[-.75, .92]
Self-assertion	-.02 (.98)	[-.36, .32]	-.27 (.76)	[-.91, .37]	.45 (1.19)	[-.07, .97]
Social support	-.15 (.95)	[-.49, .18]	-.18 (1.22)	[-.82, .45]	.37 (.98)	[-.15, .89]
Friendliness	3.41 (.69)	[3.15, 3.67]	3.90 (.69)	[3.40, 4.40]	3.24 (.99)	[2.88, 3.60]
Assertiveness	2.38 (1.10)	[2.00, 2.77]	2.40 (1.33)	[1.67, 3.13]	2.93 (1.14)	[2.41, 3.46]
Mother report	*n* = 40		*n* = 13		*n* = 15	
Emotion-controlled	-.09 (1.06)	[-.42, .23]	.01 (1.21)	[-.56, .58]	.11 (.73)	[-.42, .64]
Problem-focused	.02 (.94)	[-.31, .34]	.01 (.98)	[-.55, .58]	-.07 (1.24)	[-.60, .45]

Note. Sample sizes vary owing to missing data.

Table 4

Descriptive Statistics for Competence Variables by Imaginary Companion Status

	No imaginary companion		Invisible friend		Personified object	
	M (*SD*)	95% CI	*M* (*SD*)	95% CI	*M* (*SD*)	95% CI
Child-rated	*n* = 39		*n* = 12		*n* = 20	
Cognitive	3.42 (.58)	[3.22, 3.61]	3.62 (.39)	[3.27, 3.96]	3.39 (.74)	[3.12, 3.66]
Social	3.06 (.57)	[2.89, 3.23]	2.90 (.54)	[2.59, 3.21]	2.87 (.46)	[2.63, 3.11]
Mother-rated	*n* = 40		*n* = 12		*n* = 20	
Cognitive	3.29 (.68)	[3.11, 3.46]	3.72 (.36)	[3.40, 4.03]	3.60 (.28)	[3.36, 3.85]
Social	3.11 (.76)	[2.88, 3.36]	3.10 (.68)	[2.68, 3.52]	3.28 (.68)	[2.96, 3.60]
Teacher-rated	*n* = 40		*n* = 12		*n* = 20	
Cognitive	3.24 (.71)	[3.03, 3.44]	3.32 (.71)	[2.94, 3.69]	3.50 (.44)	[3.21, 3.79]
Social	3.32 (.62)	[3.11, 3.54]	3.17 (.79)	[2.78, 3.56]	3.25 (.73)	[2.95, 3.55]

Note. Sample sizes vary owing to missing data.

Table 5

Descriptive Statistics for Competence Variables by Imaginary Companion Relationship Quality

	No imaginary companion		Egalitarian relationship		Hierarchical relationship	
	M (*SD*)	95% CI	*M* (*SD*)	95% CI	*M* (*SD*)	95% CI
Child-rated	*n* = 39		*n* = 13		*n* = 15	
Cognitive	3.42 (.58)	[3.24, 3.59]	3.65 (.51)	[3.35, 3.95]	3.47 (.48)	[3.19, 3.75]
Social	3.06 (.57)	[2.89, 3.23]	2.97 (.44)	[2.67, 3.26]	2.84 (.49)	[2.57, 3.12]
Mother-rated	*n* = 40		*n* = 13		*n* = 15	
Cognitive	3.29 (.68)	[3.11, 3.46]	3.75 (.23)	[3.45, 4.06]	3.69 (.24)	[3.41, 3.98]
Social	3.11 (.76)	[2.88, 3.33]	3.12 (.68)	[2.73, 3.51]	3.48 (.54)	[3.12, 3.84]
Teacher-rated	*n* = 40		*n* = 13		*n* = 15	
Cognitive	3.24 (.71)	[3.03, 3.44]	3.61 (.43)	[3.26, 3.97]	3.41 (.60)	[3.08, 3.75]
Social	3.32 (.62)	[3.11, 3.53]	3.55 (.61)	[3.18, 3.92]	2.92 (.82)	[2.58, 3.27]

Note. Sample sizes vary owing to missing data.