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Investigating the Development of Prosociality Through the Lens of Refusals: Children's Prosocial Refusals With Siblings and Friends

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This 3-year longitudinal study examined children's engagement and refusals to be prosocial between siblings and friends from early to middle childhood. At each of two time points, 44 children (M age = 4.56 years at Time 1 [T1]) were video-recorded in one play session with a sibling and one with a friend. Children's helping or refusals to help and sharing or refusals to share and their strategies to refuse prosociality were coded. Findings revealed that prosocial refusals were as frequent as prosocial actions between siblings and friends. Children were more likely to refuse to be prosocial with their sibling especially for sharing and through verbal refusals. Children used verbal refusals more at T1, whereas they used passive refusal more at T2. Verbal and nonverbal refusals were used more to refuse sharing, whereas passive refusal was used more to refuse helping. This study highlighted the importance of prosocial refusals in the development of prosociality in the context of close relationships.

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Children begin to display prosocial behaviors early in life, even in the absence of praise, rewards, or explicit requests (e.g., Warneken, Hare, Melis, Hanus, & Tomasello, 2007; Warneken & Tomasello, 2013). While rates of prosocial behavior increase in the early years (e.g., Brownell, Svetlova, & Nichols, 2009; Dunfield, Kuhlmeier, O'Connell, & Kelley, 2011), children become more selective in their prosociality beyond early childhood (e.g., Hay & Cook, 2007; Over, 2018). Both experimental studies (e.g., Dunfield & Kuhlmeier, 2013; Svetlova, Nichols, & Brownell, 2010; Waugh & Brownell, 2017) and observational studies (Demetriou & Hay, 2004; Lamb & Zakhireh, 1997) report evidence of children's prosocial refusals. Despite noticing others' needs, the potential prosocial agent might decide to refuse addressing those needs either directly and/or indirectly through nonactions; these refusal responses to other's needs are referred to as prosocial refusals. Alongside prosocial actions, we argue that prosocial refusals—despite being neglected in the literature—are developmentally meaningful in their own right inasmuch as these decisions provide opportunities for children to develop skills in balancing their own and others' needs by enacting their sense of agency. Thus, documenting how prosocial refusals manifest and develop across childhood can broaden our overall perspective on the development of prosociality.

Moreover, the development of prosociality appears to be grounded in children's relationships with others (e.g., Dunn & Munn, 1986; Hughes, McHarg, & White, 2018; Smorti & Ponti, 2018; Zahn-Waxler, Iannotti, & Chapman, 1982). Specifically, children's relationships with the recipients of their prosociality are a unique contextual and motivational factor to facilitate prosocial development (Dunn, 2007; Kramer, 2014; Smorti & Ponti, 2018); different social relationships might afford different opportunities for children to practice their prosocial skills (Carpendale & Lewis, 2015). Nevertheless, the nature of children's prosocial refusals is understudied across different relationships. Importantly, investigating children's prosocial engagements and refusals in their everyday environment in meaningful, ongoing relationships with other children (e.g., sibling and/ or friend) enhances the ecological validity of studying these behaviors that may complement experimental findings (Dahl, 2017). In the current study, we examined the ways in which children's refusals to be prosocial develop from early to middle childhood in the context of everyday interactions with close relationship partners—namely, siblings and friends (Carpendale, Hammond, & Atwood, 2013; Carpendale & Lewis, 2015; Dahl, 2018).

Prosocial Development: Comprising Prosocial Engagements and Refusals

Prosociality refers to actions that are intended to benefit a person in need by alleviating the negative state or assisting the person to reach her/his goal (Eisenberg, Spinrad, & Knafo-Noam, 2015). Prosocial behaviors such as helping and sharing emerge early in life and become more frequent as children age (e.g., Brownell et al., 2009; Dunfield et al., 2011; Warneken & Tomasello, 2007). According to constructivist-interactionist theory. children's social and moral understanding develops through interacting with others, particularly in the context of close, intimate relationships (e.g., Carpendale & Lewis, 2015; Dahl, 2018; Dahl, Waltzer, & Gross, 2017). This theory underscores children's social environment as an important contributor to their social and moral understanding and also emphasizes the active role of children in constructing this understanding (Dahl et al., 2017). For instance, when interacting with parents, siblings, and friends, distinct opportunities arise for children to understand their partners' expectations and reactions to their own behaviors. During such interactions, children have opportunities to initiate, interpret, and evaluate social interactions; these opportunities allow children to reflect on their existing social and moral understanding, to construct new perspectives on others' feelings and needs, and to improve their prosocial skills (Dahl et al., 2017).

In addition, previous studies have demonstrated that children's prosocial refusals, including active refusals and/or nonactions, are as frequent as their prosocial actions (Demetriou & Hay, 2004; Tavassoli, Recchia, & Ross, 2019). Children's refusals to be prosocial may be due to many factors, such as failure to recognize another's need, inability to identify an appropriate way to intervene, and lack of motivation (Dunfield & Kuhlmeier, 2013). Although prosocial refusals can be attributed to all of these factors, the instances when one child recognizes the other's need and also knows how to alleviate that need, but is not motivated enough to act to address the need, may showcase selective prosociality and partner choice. These instances depict prosocial behaviors that are selectively directed at particular individuals rather than at everyone in general (Martin & Olson, 2015), which appear to increase across development (e.g., Garon, Johnson, & Steeves, 2011; Kuhlmeier, Dunfield, & O'Neill, 2014). Given that children's prosocial refusals occur in the context of social interactions with others, wherein children's social partners also respond to prosocial refusals, such interactions might provide opportunities for children to explore their options autonomously to act or refuse to act prosocially, receive feedback from their partners in response to their behavioral choices, and develop social skills in balancing their own and others' needs while attempting to maintain their relationships. Thus, children might develop more sophisticated strategies in expressing their unwillingness to be prosocial while developing a sense of agency over time (e.g., Sokol, Hammond, Kuebli, & Sweetman, 2015). Therefore, prosociality might develop simultaneously through the social processes of engaging in and refusing to act prosocially.

However, the developmental trajectories of children's prosocial refusals have received limited attention, especially from early to middle childhood (for a toddler study, see Waugh & Brownell, 2017). Uncovering whether children use different strategies to show their unwillingness to be prosocial at different ages and how prosocial refusals develop as children grow older will, first, provide further support for constructivist—interactionist theory in emphasizing the importance of early social interactions in the development of prosociality, and, second, highlight the essential, but unappreciated, role of prosocial refusals in the development of prosociality. To our knowledge, the present study is one of the first to consider refusing to act prosocially as a complement to engaging in prosocial action and to examine prosocial refusals in the context of children's everyday life to maximize the ecological validity of findings.

Situating Prosocial Engagement and Refusals in the Context of Close Relationships

Relationships with agemates such as siblings and friends provide many opportunities for both positive and negative social behaviors (Howe, Ross, & Recchia, 2011). Most social—interactional research on children's prosocial behavior focuses on interactions with parents (e.g., Carpendale, Hammond, & Atwood, 2013; Pettygrove, Hammond, Karahuta, Waugh, & Brownell, 2013; Rheingold, 1982). An unexplored question is how social interactions with agemates such as siblings and friends contribute to prosocial development. Specifically, it is not yet clear whether and to what extent children's prosocial engagement and refusals are sensitive to the features of close relationships.

Sibling relationships. The involuntary sibling relationship constitutes the first extensive social relationship for most children, as 80% of Western children have at least one sibling (Howe et al., 2011; White & Hughes, 2017). Due to a high degree of familiarity and intimacy between siblings, they are social tutors and role models for each other (Dunn, 2007; White & Hughes, 2017). Interactions between siblings contain both complementary elements

(i.e., hierarchical exchanges, as typical in parent-child relationships) and reciprocal elements (i.e., equal and returned exchanges, as with peers; Howe et al., 2011), which afford rich opportunities for children to develop prosocial skills such as being attuned to others' expressions of needs and knowing how to address those needs (Dunn & Munn, 1986; Kramer, 2014). For instance, studies on prosociality between siblings in early childhood showed that, due to the hierarchical and complementary nature of the sibling relationship, older siblings, who are more socially and cognitively skilled, are more likely to help or share with their younger siblings than vice versa (e.g., Abramovitch, Corter, & Lando, 1979; Dunn & Munn, 1986; Tavassoli et al., 2019). This suggests that the sibling relationship affords different opportunities for older and younger siblings. Moreover, there is evidence suggesting that girls typically engage in more prosocial behaviors than do boys, and this difference is mainly observed in older sisters (Abramovitch et al., 1979; Pepler, Abramovitch, & Corter, 1981; White, Ensor, Marks, Jacobs, & Hughes, 2014).

Moreover, siblings are usually children's first playmates; thus, the context of sibling play provides early opportunities for sharing toys and learning shared meaning strategies such as how to extend and build on the partner's ideas to further the play (Leach, Howe, & DeHart, 2015). Object conflicts during play are a well-known social experience of siblings, within which children can learn to find a balance between their own desires and others' needs by choosing to share with their sibling or not. A recent naturalistic study showed that refusing to share and to help are common among preschool siblings; however, both helping and sharing refusals decrease as siblings grow older (Tavassoli et al., 2019). By comparing firstborn and secondborn siblings' prosocial refusals at age 4, Tavassoli and colleagues (2019) found that 4-year-old secondborns were more likely to reject being prosocial than were firstborns at the same age, suggesting that older siblings may carry certain prescribed roles as how big brothers or sisters *should* or *should not* behave.

Sibling relationships in childhood are *closed-field relationships*--involuntary, enduring, and constrained by kinship and role-related expectations (Collins & Laursen, 1992). Sibling conflicts and prosocial refusals might both be handled without fear of dissolving the relationship and might have fewer negative consequences than with friends. In this sense, siblings might be more likely to be explicit and ruthless in the ways in which they refuse to be prosocial with one another (e.g., Recchia, Wainryb, & Pasupathi, 2013) because there is no risk of ending their relationship.

Friendship. In contrast to the sibling relationship, friendships are voluntary, and reciprocity is a key feature of this relationship (Dunn &

McGuire, 1992; Zahn-Waxler et al., 1982). It is argued that balanced social influence is more likely between people having symmetry of power (e.g., friends) than asymmetry of power (e.g., parent-child or siblings; Zahn-Waxler et al., 1982). Being friends with a prosocial child appears to enhance children's prosocial responding and to decrease negative emotionality (Barry & Wentzel, 2006; Fabes, Hanish, Martin, Moss, & Reesing, 2012). Nevertheless, prosocial refusals are also commonly observed between peers and friends. A longitudinal observational study on friend-directed prosociality showed that more than half of the toddlers did not act prosocially when they observed that a familiar peer was distressed (Demetriou & Hay, 2004). Similarly, Farver and Branstetter (1994) revealed that 40% of preschool children responded to their peers' distress just by watching or ignoring the situation. A study examining preschoolers' food sharing indicated that friends shared only 38% of the time, suggesting that sharing refusals are common among friends (Birch & Billman, 1986). Given that relationships outside the family constitute as being openfield relationships or having less-constrained interactions (Collins & Laursen, 1992), prosocial refusals and conflicts might not be tolerated at the same level as in sibling relationships. In addition, friends might show their unwillingness to be prosocial in more implicit ways (e.g., ignoring rather than verbally rejecting the other's request for help) in an attempt to maintain their friendship compared to siblings. Lastly, although girls seem to engage in more prosocial behaviors than do boys in their friendships (for a review, see Rose & Rudolph, 2006), to our knowledge, no study has directly investigated whether there is a gender difference in refusing to be prosocial toward friends. However, based on previous research on peer conflict indicating that boys engage in aggression and antisocial behaviors more than girls do (for a review, see Coie & Dodge, 1998), similar patterns of findings might be evident for prosocial refusals between friends.

The Current Study

The aim of this longitudinal study was to investigate the development of prosociality from a new perspective by understanding how prosociality, including both engagement and refusals to engage in prosocial behaviors, develops in the context of sibling and friend relationships from early childhood (Time 1 [T1]) to middle childhood (T2). Specifically, we were interested in examining the ways in which the unwillingness to be prosocial was communicated between children and whether the refusal strategies change as children grow older. The strategies that children use to show their unwillingness to act prosocially may indirectly elucidate the

motivations underlying their prosocial refusals, which may in turn vary as a function of relationship. In addition, we were interested to understand whether prosocial engagement and refusal between siblings and friends vary based on dyadic gender differences.

Based on previous studies (e.g., Eisenberg et al., 2015; Hay & Cook, 2007), we consider two competing hypotheses about age-related change. On the one hand, with age, children may engage in more prosocial behaviors and the rate of prosocial refusals may decrease as they develop in their social skills for understanding and responding to others' needs. In contrast, older children may engage in fewer prosocial behaviors while the rate of prosocial refusals increases due to engaging in prosociality selectively toward some but not all individuals. Considering the different characteristics of sibling relationships and friendships (Howe et al., 2011; White & Hughes, 2017), we expected that children would be more prosocial with their friends than with their siblings, whereas there would be more prosocial refusals with siblings than with friends. Given that children's sociocognitive skills develop from early to middle childhood (e.g., Carpendale & Lewis, 2015), and they become more aware of the consequences of their actions (Smetana, 2006), we expected that, as children grew older, they would use refusal strategies that were more socially skilled to avoid potential negative consequences (e.g., passive refusals). Moreover, we expected that the refusal strategies directed at siblings and friends would differ; specifically, we expected that children would use more explicit strategies (e.g., verbal refusals rather than passive refusals) to refuse acting prosocially with siblings than with friends because they are less concerned about avoiding conflict in their sibling relationships (e.g., Recchia et al., 2013). In terms of gender differences, given that previous studies showed that girls engage in more prosociality than do boys in both sibling relationships and friendships (Abramovitch et al., 1979; Pepler et al., 1981; White et al., 2014), we expected to see similar patterns of findings in our sample of siblings and friends. Moreover, based on previous research indicating that boys, more than girls, are assertive and engage in aggression and antisocial behaviors (for a review, see Coie & Dodge, 1998), we expected that boys would refuse to be prosocial more than girls.

Method

Participants

Middle-class Caucasian families from western New York were recruited through fliers sent to preschools and by word of mouth. At T1, a total of 63 four-year-old focal children (M age = 4.56, SD = .46 year) were observed

with either a younger sibling (n = 27, M age = 2.94, SD = .44 year) or older sibling (n = 36, M age = 6.31, SD = .88 year). The dyadic gender composition consisted of 33 same-sex dyads (17 brothers and 16 sisters) and 30 mixed-sex dyads (14 older sister–younger brother and 16 older brother–younger sister). Focal children were labeled as older or younger in relation to the sibling who participated in the study (21 firstborn focal children, 32 secondborn, and 10 born third or later). A follow-up observation (T2) was conducted approximately 3 years later. Families were contacted, and 46 families (73%) participated. Divorce, maternal employment, or moving were the most common reasons for family attrition. No differences were found in parental education, socioeconomic status, or ethnicity, as well as focal child age, sibling gender, or age composition, between families who withdrew or participated at T2 (for details, see Stauffacher & DeHart, 2005, 2006).

The video recordings of two families were not codable because of technical errors. Therefore, the T2 sample included 44 eight-year-old focal children (M age = 8.06, SD = .52 year) who were observed with either a younger sibling (n = 20, M age = 6.21, SD = .48 year) or an older sibling (n = 24, M age = 9.90, SD = .72 year). Sibling age gap ranged from 15 to 37 months (M = 22.74 months, SE = 4.74). The birth order of the focal children consisted of 15 firstborns, 20 secondborns, and 9 born third or later. The dyadic gender composition included 26 same-sex pairs (14 brothers and 12 sisters) and 18 mixed-sex pairs (11 older brother—younger sister and 7 older sister—younger brother).

Families selected a friend of the focal child to participate at both time points (T1 friends' M age = 4.81, SD = .88 year; and T2 friends' M age = 8.07, SD = .91 year). In consultation with the focal child, parents selected a friend who was (a) a frequent playmate, (b) the same age, and (c) the same gender as the focal child. In cases where families were unable to select a friend based on all three criteria, the first two requirements were used. At both time points, three families selected an opposite-gender friend. About half of the friends selected at T1 participated at T2 (20/44 = 45%). To ensure that the children were close friends, parents rated the closeness of the friendship on a 5-point scale (i.e., 1 = acquaintance, 3 = friend, and 5 = best friend; T1: M = 3.96, SD = .81; and T2: M = 4.19, SD = .73). Ethical approval for the study was granted by the Office of Research at the State University of New York, College at Geneseo, for the original data collection and by the Concordia University Human Research Ethics Committee for the secondary analysis of the data.

Procedure

Before the data collection started, the research assistants visited the family home to become acquainted with parents and children, described the study's procedure, and obtained parental written consent and children's verbal assent. During the data-collection phase, each focal child was video recorded in the family home during two separate 15-min semistructured play sessions (i.e., one with a sibling and one with a friend). The order of sibling and friend dyad sessions was counterbalanced, and these sessions were held approximately 1 week apart. Families were offered a copy of the videotaped play sessions, and the focal child, the sibling, and the friend received a small toy as appreciation for their participation.

To facilitate the play at T1, dyads were given one of three counterbalanced wooden play sets: farm (n = 22 sibling and 20 friend dyads), village (n = 20 sibling and 22 friend dyads), and train (n = 2 sibling and 2 friend dyads).* During the T2 data collection, dyads were given either a village (n = 22 sibling and 22 friend dyads) or a train set (n = 22 sibling and 22 friend dyads). Children were instructed to play with the toys as they wished, and the research assistant sat with the mother in another room to give children a private space to play while the mother also completed a demographic questionnaire. Research assistants, blind to the study's aims, transcribed all verbal and nonverbal behavior from the video recordings.

Coding

Potential prosocial instances were identified when children indicated they had a need (e.g., Dunfield & Kuhlmeier, 2013). We used the following identifiers of prosocial instances: verbal requests (e.g., "help me find the red car" and "where is that little white ducky?"), nonverbal requests (e.g., reaching), emotional needs (e.g., fussing), and situational cues (e.g., searching for a piece of train track) (e.g., Dunfield et al., 2011; Svetlova et al., 2010; Warneken & Tomasello, 2007). When siblings or friends expressed their needs, focal children's responses were coded—but only when it was clear that the focal child had noticed the expression of need. Children's responses either addressed the need when the focal child engaged in prosocial behavior or rejected the need when they refused to act prosocially. In both situations, the types of prosocial behaviors that focal children engaged in or refused to engage in were coded—specifically, helping, sharing, or comforting. Helping was defined as assisting others to reach their instrumental goals

^{*}The four dyads who received the train set at T1 were recruited late in the data collection and were accidentally given the train set. The train set was meant to be used only for the T2 data collection.

(e.g., Warneken & Tomasello, 2007). *Sharing* was defined as behaviors that compensate for inadequate distribution of resources (e.g., Brownell et al., 2009). *Comforting* was defined as showing concern or behaving to alleviate another's negative emotions (e.g., Svetlova et al., 2010; Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992). When focal children refused to act prosocially, their strategies were coded for four types of refusals: (a) verbal refusal, (b) nonverbal refusal, (c) emotional refusal, and (d) passive refusal (for definitions and examples, see Table 1).

Reliability. Interrater reliability for all codes was established based on 20% of the transcripts at each time point (36 of 176) between two coders, one of whom was blind to the hypotheses. Discrepancies or disagreements were resolved via discussion. Percentage of agreement (agreements/ [agreements + disagreements]) for identification of prosocial sequences was 85%. Cohen's kappas were calculated for types of responses (k = .97), types of prosociality (k = .96), and types of refusal strategies (k = .92).

Table 1. Coding scheme and examples for children's strategies to refuse acting prosocially

Types of refusal strategies

Verbal refusal: Refusal instances when the child directly or indirectly verbalizes her/his unwillingness to act prosocially.

- e.g., F: "I want the caboose" and FC: "No, I want it, I found it."
- e.g., YS: "Where is the bench?" and FC: "Can't you see I am busy. You find it yourself."

Nonverbal refusal: Refusal instances when the child nonverbally shows signs of unwillingness to act prosocially.

- e.g., S touches the red car held by FC, and FC holds the toy firmly in her/his fist.
- e.g., F stretches her/his hand and grabs a toy in FC's possession. FC tugs toy back.

Emotional refusal: Refusal instances when the child reacts emotionally to show her/his unwillingness to act prosocially.

- e.g., F tries to take a piece of train set FC is playing with and FC starts to cry.
- e.g., S steps on a piece of car and says, "Ow!" in pain while rubbing her foot. FC laughs at S and makes fun of her.

Passive refusal: Refusal instances when the child notices the other child had a need, but she/he continues to do what she/he was doing before. To ensure that children noticed the need and then refused to respond to it, we employed strict coding criteria. For instance, if the request for help was mumbled by the friend and the focal child did not look at the friend, we did not consider that the focal child noticed the request.

e.g., S: "Give me the blue roof top, there!" pointing at the piece. FC looks at S and the piece but continues building himself.

Note. FC = focal child; F = friend; S = sibling. When a prosocial opportunity arose, multiple refusal strategies could co-occur, except for passive refusals that could not occur with other strategies.

Results

Data Analysis

The focal child was treated as the unit of analysis. To avoid introducing dependencies into the data, only focal children's (not friends' or siblings') prosocial engagement and/or refusals were analyzed. The unique and interactive effects of time (T1 and T2) and relationship (sibling or friend) were examined by using factorial repeated-measures analyses of variance (ANOVAs). Degrees of freedom were adjusted using the Greenhouse–Geisser correction when sphericity assumptions were violated; Bonferroni corrections were used for post hoc pairwise comparisons (familywise alpha level of p < .05). Effect size is reported as partial eta-squared (η^2).

Preliminary Analysis

Descriptive statistics for children's prosocial opportunities—all instances when children engaged in prosocial behaviors or refused to be prosocial at T1 and T2 while playing with siblings and friends—are presented in Table 2. A 2 (time) \times 2 (relationship) \times 2 (response: prosocial or refusal) repeated-measures ANOVA revealed a significant main effect of time, F(1, 43) = 5.96, p = .02, $\eta^2 = .12$. There were more prosocial opportunities for children at T1 (M = 3.62, SE = .25) than at T2 (M = 2.87, SE = .17). No other significant main effect or interaction was found; notably, there was no main effect of response (p = .61), indicating that prosocial refusals were as frequent as prosocial behaviors. Furthermore, descriptive statistics (Table 3) indicated that, of all types of prosocial behaviors, helping and sharing instances between sibling and friend dyads were more frequent than comforting at both T1 and T2. Due to low frequency, comforting was dropped from analyses.

Table 2. Descriptive statistics for engaging and refusing prosociality in sibling and friend dyads at Time 1 and at Time 2

		Engaged in prosociality		Refused to act prosocially			
		M (SD)	Range	e M (SE) Range			
Time 1	Sibling	4.02 (3.37)	0-14 per child	4.13 (3.73)	0–18 per child		
	Friend	3.88 (2.88)	0–12 per child	2.45 (2.96)	0–15 per child		
Time 2	Sibling	2.88 (3.06)	0–13 per child	3.25 (3.22)	0–15 per child		
	Friend	2.50 (1.95)	0–6 per child	2.84 (2.33)	0–9 per child		

Note. N = 44.

Table 3. Descriptive statistics for engaging and refusing types of prosociality in sibling and friend dyads at Time 1 and at Time 2

	Sibling dyads						
	Engaged in prosociality			Refused to act prosocially			
	N dyads (%)	M (SD)	Range	N dyads (%)	M (SE)	Range	
Time 1							
Helping	32 (72%)	2.34 (2.17)	0–10	25 (56%)	1.25 (1.64)	0–8	
Sharing	29 (65%)	1.76 (1.63)	0–6	35 (79%)	2.66 (2.58)	0–9	
Comforting	2 (4%)	0.04 (0.21)	0–1	5 (11%)	0.22 (0.77)	0–4	
Time 2							
Helping	30 (68%)	1.56 (1.68)	0–6	29 (65%)	1.59 (1.66)	0–6	
Sharing	24 (54%)	1.23 (1.73)	0–8	25 (56%)	1.72 (2.88)	0–13	
Comforting	4 (9%)	0.09 (0.29)	0–1	4 (9%)	0.18 (0.69)	0–4	

Note. N = 44.

	Friend dyads						
	Engaged in prosociality			Refused to act prosocially			
	N dyads (%)	M (SD)	Range	N dyads (%)	M (SD)	Range	
Time 1							
Helping	36 (81%)	2.56 (2.21)	0–9	25 (56%)	1.09 (1.39)	0–7	
Sharing	27 (61%)	1.16 (1.43)	0–7	19 (43%)	1.29 (2.52)	0–14	
Comforting	5 (11%)	0.16 (0.53)	0–3	3 (6%)	0.06 (0.22)	0–1	
Time 2							
Helping	31 (70%)	1.70 (1.48)	0–5	28 (63%)	1.91 (2.1)	8–0	
Sharing	22 (50%)	0.75 (0.96)	0–4	19 (43%)	1.00 (1.65)	8–0	
Comforting	2 (4%)	0.04 (0.55)	0–1	2 (4%)	0.04 (0.21)	0–1	

Note. N = 44.

To test for possible sibling gender effects, a series of one-way ANOVAs were conducted with focal child gender (girl or boy) and sibling gender (sister or brother) as the independent variables, and acting and refusing to act prosocially as the dependent variables. No main effect of focal child gender, sibling gender, or interaction was found for acting prosocially. For refusing to act prosocially, a main effect of focal child gender was revealed, F(1, 40) = 4.29, p = .045, partial $\eta^2 = .09$. Male focal children (M = 16.88,

SE=1.49) refused to act prosocially more than female focal children did (M=12.18, SE=1.71). Therefore, focal child gender was included in the further analysis of prosocial refusals. No significant main effect of sibling gender or interaction was found for refusing to act prosocially. In addition, a series of one-way ANOVAs was conducted to examine possible sibling birth-order differences (i.e., focal child with an older sibling versus with a younger sibling); birth order was the independent variable, and acting and refusing to act prosocially were the dependent variables. The analysis did not reveal any sibling birth-order differences. Lastly, Pearson correlations conducted to account for sibling age gap with acting and refusing to act prosocially were all nonsignificant. Therefore, birth order and age gap were not included in further analyses.

To test for possible friend gender effects, a series of one-way ANOVAs were conducted with friend gender composition (i.e., focal boy–friend boy and focal girl–friend girl) as the independent variables, and acting and refusing to act prosocially as the dependent variables. Since there were only three friend dyads with mixed gender (focal boy–friend girl), these dyads were excluded from the analyses. No significant difference was found between friend gender combinations for engaging in prosociality. However, there was a significant friend gender combination difference for prosocial refusals, F(1, 40) = 4.34, p = .04. Among same-sex friends, boy dyads (M = 6.33, SE = 4.27) refused prosociality significantly more than girl dyads did (M = 3.90, SE = 3.07). Friend gender combination was included in the further analysis of prosocial refusals.

Moreover, to investigate whether the duration of children's friendships had influenced their prosocial engagement or refusals, several independent sample t tests were conducted. At T2, there was a significant difference in prosocial behaviors between children who knew their friend for a longer time (from T1) and children who knew their friend for a shorter time (not from T1), t(42) = 2.08, p = .04. At T2, children who knew their friend for a longer time engaged in more prosocial acts (M = 3.15, SE = 2.06) than did children in shorter friendships (M = 1.95, SE = 1.73). No other mean differences were found for prosocial engagement (p = .62) and prosocial refusals at T1 (p = .19) or at T2 (p = .68).

Types of Children's Prosocial Behavior Over Time and Across Relationships

To examine whether there were differences in children's engagement in different types of prosociality over time and across different relationships, a $2 \text{ (time)} \times 2 \text{ (relationship)} \times 2 \text{ (types of prosociality: helping or sharing)}$

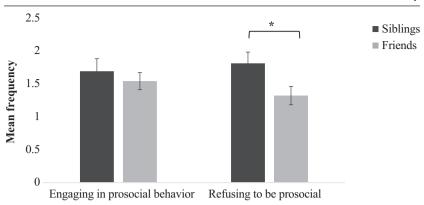


Figure 1. Engaging in or refusing to act prosocially as a function of relationship (* p < .05).

factorial ANOVA was conducted on all instances when children engaged in prosocial behaviors. The analysis revealed a main effect of time, F(1, 43) = 10.01, p < .05, $\eta^2 = .19$; children engaged in prosocial acts more at T1 (M = 1.93, SE = .16) than T2 (M = 1.31, SE = .11). However, this finding should be interpreted with caution because there were more opportunities to engage in prosociality at T1 than at T2. There was also a main effect of types of prosociality, F(1, 43) = 29.53, p < .01, $\eta^2 = .41$; children helped (M = 2.04, SE = .15) more than shared (M = 1.19, SE = .10). No significant main effect of relationship was found (p = .57; see Figure 1).

In addition, a significant interaction of the types of prosociality by relationship was evident, F(1, 43) = 4.37, p = .04, $\eta^2 = .09$. Children helped their friends (M = 2.13, SE = .22) to the same extent as their sibling did (M = 1.95, SE = .23). However, they shared more with their siblings (M = 1.43, SE = .20) than with friends (M = 0.95, SE = .12). No other significant interaction was evident.

Children's Prosocial Refusals Over Time and Across Relationships

To understand whether there were differences in children's engagement in different types of prosociality over time and across different relationships, a 2 (time) \times 2 (relationship) \times 2 (types of prosociality: helping or sharing) factorial ANOVA was conducted on all instances when children refused to act prosocially when they could have reasonably been expected to do so. The analysis revealed a main effect of relationship, F(1, 43) = 4.35, p = .04, $\eta^2 = .10$; as predicted, children refused to behave prosocially more

with their siblings than with their friends (see Figure 1). There were no main effects of time (p=.93) or types of prosociality (p=.40). However, there was a significant interaction of time by types of prosociality, F(1, 43) = 6.11, p=.01, $\eta^2=.12$. At T1, children refused to share (M=1.97, SE=.28) more than they refused to help (M=1.17, SE=.17), whereas, at T2, they refused to share (M=1.36, SE=.26) and refused to help (M=1.75, SE=.16) to the same extent. A significant relationship by type of prosociality interaction, F(1, 43) = 5.61, p=.02, $\eta^2=.11$, indicated children refused to share more with siblings (M=2.19, SE=.30) than with friends (M=1.15, SE=.23). Refusal to help was not significantly different between siblings (M=1.42, SE=.19) and friends (M=1.50, SE=.18).

Gender differences. To test whether there were sibling or friend gender differences in refusing different types of prosociality at both time points, a $2 \text{ (time)} \times 2 \text{ (types of prosociality) factorial ANOVA was conducted with}$ focal child gender and sibling/friend gender as between-subject variables. Focal child gender, F(1, 40) = 7.04, p = .01, partial $\eta^2 = .15$, and the interaction between focal child gender and sibling gender, F(1, 40) = 23.74, p = .007, $\eta^2 = .17$, were significant. Boy focal children (M = 1.58, SE = .17) refused to act prosocially more than girl focal children did (M = 0.87, SE = .20). Moreover, boy focal children were more likely to refuse being prosocial with brothers (M = 2.00, SE = .23) than with sisters (M = 1.16, SE = .26). Although girl focal children were more likely to refuse being prosocial with sisters (M = 1.21, SE = .23) than with brothers (M = 0.54, SE = .32), this difference was not significant (p = .09). No other significant interaction was evident between gender and time or types of prosociality between siblings. In addition to the significant main effect of gender combination reported previously for friends, no other significant interaction emerged.

Children's Prosocial Refusal Strategies

To examine whether the strategies that children used to refuse acting prosocially varied over time, across different relationships and types of prosociality, we conducted a 2 (time) \times 2 (relationship) \times 4 (refusal strategies) \times 2 (type of prosociality: helping or sharing) factorial ANOVA. To avoid repeating findings already described, only effects involving refusal strategies are reported here. A significant main effect of refusal strategies was revealed, F(2.11, 92.78) = 42.47, p < .01, $\eta^2 = .49$. In order of decreasing frequency, passive refusals and direct verbal refusals were used more than nonverbal refusals and emotional refusals (see Table 4).

Refusal strategies	Overall	Time 1	Time 2	Siblings	Friends	Helping	Sharing
	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)	M (SE)
Verbal refusal	.60 (.07)	.75° (.12)	.45° (.07)	.78° (.10)	.42° (.10)	0.10 ^d (.03)	1.10 ^d (.14)
Emotional refusal	.02 (.01)	.04 (.02)	.01 (.01)	.03 (.01)	.02 (.01)	0.02 (.01)	0.03 (.01)
Nonverbal refusal	.27 (.04)	.34 (.06)	.20 (.06)	.32 (.07)	.22 (.05)	O.00 ^f	0.54 ^f (.08)
Passive refusal	.73 (.06)	.61 ^b (.08)	.85 ^b (.07)	.71 (.08)	.76 (.09)	1.30° (.11)	0.17° (.04)

Table 4. Children's strategies to refuse acting prosocially over time, across relationships, and types of prosociality

Note. Means in *different* columns are labeled with the *same* superscripts when post hoc Bonferroni tests revealed significant differences at p < .05 (e.g., "a" is significantly different from "a").

In addition, a significant time by refusal strategy interaction was observed, F(2.07, 96.03) = 6.09, p < .05, $\eta^2 = .12$. Direct verbal refusals were used more at T1 than at T2, whereas passive refusals were used more at T2 than at T1 (see Table 4). Also, the analysis revealed a significant relationship by refusal strategy interaction, F(2.12, 93.49) = 2.41, p = .04, $n^2 = .05$. Children used verbal refusals significantly more with their siblings than with their friends (see Table 2). Moreover, a significant interaction of types of prosociality by refusal strategy was evident, F(2.18,96.12) = 89.44, p < .01, $\eta^2 = .67$. Verbal refusals and nonverbal refusals were used significantly more to refuse to share than to refuse to help, whereas passive refusals were used significantly more to refuse to help than to refuse to share (see Table 4). Finally, a significant three-way interaction of relationship by types of prosociality by refusal strategy interaction was revealed, F(2.20, 96.98) = 3.98, p = .02, $\eta^2 = .08$. Children used verbal refusals to avoid sharing significantly more with siblings (M = 1.48, SE = .19) than with friends (M = .71, SE = .18), whereas the use of the other refusal strategies did not differ significantly across relationships.

Gender differences. Lastly, to test whether there were sibling or friend gender differences in rejecting different types of prosociality at both time points, a 2 (time) \times 2 (types of prosociality) \times 4 (refusal strategy) factorial ANOVA was conducted with focal child gender and sibling/friend gender as between-subjects factor. No significant two-, three-, or four-way interactions between gender and time, types of prosociality, and/or refusal strategy emerged between siblings. However, the findings revealed

a three-way interaction between types of prosociality, types of rejection, and friend gender combination, F(2.06, 80.24) = 4.88, p = .009, $\eta^2 = .11$. Pairwise comparison indicated that boys with male friends (M = 1.12, SE = .27) used verbal refusals to avoid sharing more than did girls with female friends (M = 0.27, SE = .27), whereas there was no friend gender composition effect for helping.

Discussion

The purpose of this longitudinal study was to understand children's everyday prosocial engagements and refusals from early to middle childhood in the context of sibling relationships and friendships. Specifically, we investigated how refusing to help and to share characterizes behavior and develops in the context of children's everyday interactions with siblings and friends. To capture prosocial refusals, we examined how children's unwillingness to be prosocial was displayed between siblings and friends and developed from early to middle childhood. Our novel findings illuminate the developmental significance of prosocial refusals—namely, changes in the ways these refusals are expressed over time and across relationship context.

Prosocial Refusals: Another Perspective of Children's Prosocial Development

Corroborating previous naturalistic studies (e.g., Demetriou & Hay, 2004; Lamb & Zakhireh, 1997; Tavassoli et al., 2019), the current findings revealed that prosocial refusals occur frequently in children's everyday social interactions with siblings and friends at both time points. These findings advance our understanding about the prevalence of prosocial refusals and enrich constructivist-interactionist theory (e.g., Carpendale & Lewis, 2015; Dahl, 2018). We advance theory by suggesting that prosocial refusals might afford unique opportunities for children to evaluate prosocial situations from a different perspective (i.e., whether a situation warrants a prosocial response or not), balance their own and others' needs, construct a new understanding about these situations, and consequently develop prosocial skills and assess whether to use these skills. In fact, deciding whether or not to act prosocially could be an indication of children's exercising of agency and autonomy—that is, since refusing to be prosocial might indirectly hurt others, these prosocial opportunities help children to figure out what it takes to be prosocial and what challenges it poses not to be prosocial. In fact, this awareness is an inevitable part of children's prosocial development.

Moreover, findings revealed that prosocial opportunities decreased as children grew older, indicating that perhaps children needed less assistance over time and/or they developed more efficient self-help skills. For instance, responses such as "you do it yourself" were more evident at T2, which might serve as feedback to the person in need. Previous studies revealed that older as opposed to younger children are more likely to consider whether the need is within the range of the recipient's capability to engage in self-help (Kim, Sodian, & Paulus, 2014; Paulus & Moore, 2014). Additionally, the presence of fewer prosocial opportunities at T2 than at T1 may explain why children were less prosocial at T2. Relatedly, due to children's more developed sociocognitive skills and advanced social understanding regarding the relationship dynamics, children in middle childhood, compared to early childhood, are more concerned about the possible negative reactions of their help-seeking, such as being perceived as lacking in skills or being dependent (Newman & Goldin, 1990).

Yet, children's rates of prosocial refusals remained stable from early to middle childhood, suggesting that the end point of children's prosocial development might not necessarily be more prosocial behaviors and fewer prosocial failures. In fact, the consistency in the rate of prosocial refusals over time may reflect increasingly sophisticated attempts to find a balance between prosocial engagements and refusals as children's sense of agency is enhanced (Sokol et al., 2015). The nature of prosocial behavior types also sheds more light on the development of prosocial refusals. For instance, our findings revealed that children's refusals to share did not change over time. In fact, sharing requires advanced sociocognitive skills to regulate one's emotions while giving up the desired resources (e.g., Brownell et al., 2009; Dunfield & Kuhlmeier, 2013). Besides, sharing might not be warranted under circumstances when the requests appear unreasonable to the child for example, when red cars are distributed equally between children, but one child wants to possess all the red cars. Future studies should examine prosocial refusals by considering whether the sharing request is in response to an authentic need or not, which can shed further light on children's prosocial motivations.

Although, the frequency of sharing refusals remained stable over time, the nature of these behaviors might have altered qualitatively. For instance, refusing to share in early childhood (T1) included tugging or taking back the objects, whereas in middle childhood (T2) it involved more frequent explanations of reasons why the object could not be shared (e.g., "I need it to build my barn"). This finding further suggests that prosocial refusals are characterized and expressed in increasingly mature ways over the course of development and may reflect increasingly sophisticated sociocognitive

skills. Furthermore, children refused to help significantly more at T2 than at T1. Based on social domain theory (e.g., Turiel, 1998), which argues that personal concerns with autonomy become more significant in middle childhood (e.g., Wray-Lake, Crouter, & McHale, 2010), we speculate that children might practice how to achieve a balance between their own desires and others' needs by refusing to help on some occasions. Similar to sharing instances, more research is needed to disentangle if prosocial refusals are due to a lack of authentic needs/requests.

Importance of the Context of Close Relationships in Children's Prosocial Responsiveness

Consistent with our hypothesis, prosocial refusals varied by the context of relationship—that is, children refused acting prosocially more with their sibling than friend. This finding further underlines different features of the two relationships. Given the involuntariness and closed-field nature of sibling relations, children have no fear of losing this relationship (Collins & Laursen, 1992; Howe et al., 2011). In contrast, children's motivation to maintain their friendship encourages them to put some effort into sustaining their more open-field relationship. Similarly, since friendships are usually characterized by reciprocity (Howe et al., 2011), children might be less motivated to refuse acting prosocially to avoid future negative reciprocation.

Interestingly, and inconsistent with our expectation, relationship context influenced only children's prosocial refusals and not their engagement in prosociality. Children were prosocial to the same extent toward their friends and siblings. Although caring and acting on behalf of others are discretionary in nature, closer relationships encompass roles and responsibilities that bring positive obligations (Janoff-Bulman, Sheikh, & Hepp, 2009). In this regard, both relationships may perhaps comprise comparable role-related responsibilities and obligations that lead children to engage in prosocial behaviors to the same extent across relationships. However, our findings indicated that those children who knew each other for a longer time (from T1) were more prosocial at T2--that is, the degree of familiarity influenced children's prosocial engagement toward friends. Perhaps children who develop a longer, co-constructed friendship are closer and more intimate, and, therefore, they are more attuned to their friends' needs and/or they know how to address those needs. This is inconsistent with Demetriou and Hay's (2004) findings that the degree of familiarity between peers did not increase children's prosocial engagement. However, children in their sample knew each other from birth, and thus the long history of their relationship may be more comparable to sibling relationships.

Our findings also revealed focal child gender effects for refusing to be prosocial toward both siblings and friends; boys were more likely than girls to refuse being prosocial. Given that no gender difference was evident for engaging in prosociality, refusing to be prosocial might highlight gender-stereotyped behaviors more noticeably than engaging in prosociality does. For instance, boys more than girls are expected to be assertive (e.g., Leaper & Smith, 2004), and refusing to act prosocially might signal that boys were exercising their assertiveness. On the other hand, girls are expected to take care of others, and refusing to do so may indicate a "bad behavior."

With regard to the types of prosociality, our findings showed that children's helping and refusals to help did not vary by relationship. Perhaps helping instances demonstrate the extent to which children care about the welfare of others (Smetana, 2006), and accordingly these instances did not depend on the relationship. This speculation was further supported by considering the strategies that children used to refuse helping (see the next section). However, children shared and refused to share more with their siblings than with their friends. It is plausible that the familiarity and intimacy of the sibling relationship provides children with the opportunity to unreservedly ask for a resource, and consequently both address and also easily reject these opportunities. Children's refusals to share with siblings are discussed in more detail next.

Strategies to Refuse Acting Prosocially

Overall, children used varying strategies to show their unwillingness to be prosocial. Passive refusal, the most implicit strategy, was the most frequent strategy, which suggests that children prefer not to explicitly refuse to engage in prosociality; perhaps they want to maintain their positive image in front of their siblings and friends and/or they are uncertain how to respond. Our findings also revealed that children's refusal strategies varied as a function of time. At T1, children refused to act prosocially by directly verbalizing their unwillingness to be prosocial, which may reflect their limited selfregulation to inhibit a response at younger ages (Carlson & Wang, 2007). As children grow older, they are more likely to use passive refusals to reject an opportunity to respond prosocially. Due to more advanced sociocognitive skills, older children may recognize that explicit refusals may lead to more conflicts and may endanger their relationships (e.g., Zahn-Waxler et al., 1982). These findings imply that the ways in which prosocial refusals are conveyed during children's interactions with others change developmentally and reflect children's increasingly more sophisticated social skills in evaluating the consequences of their actions on their relationship.

Moreover, our findings indicated that children's refusal strategies depended on the types of prosocial behaviors they were willing to reject. For instance, compared to helping that centers around moral concerns for the welfare of others, sharing might reflect issues of personal choice (Smetana, 2006; Turiel, 1998). In this connection, regardless of the relationship, sharing was directly refused, either verbally or nonverbally. In contrast, helping refusals, which may convey a lack of caring or interest for the welfare of others, occurred passively. Future studies should examine whether the ways in which children refuse to be prosocial may impact their view of themselves as moral people.

As expected, children's refusal strategies varied as a function of relationship. Children used verbal refusals significantly more with their siblings than with their friends, especially in the case of sharing. This finding further accentuates the characteristics of sibling relationships, as children may be more ruthless (Recchia et al., 2013) and less vigilant with their siblings than with their friends (Howe et al., 2011). Also, children's previous sharing experiences and conflicts with siblings may reinforce decisions to express their personal choices assertively without worrying about the consequences of their actions (e.g., Kramer & Conger, 2009). On the other hand, children's friendships might be threatened by the same refusal strategy. Lastly, among friends, boy dyads used more verbal refusals to avoid sharing than did girl dyads, whereas this difference was not significant for helping. This finding corroborates previous studies showing that boys are more assertive in peer interactions than are girls (e.g., Leaper & Smith, 2004). Given that verbal refusal is the most explicit form of refusal, boys might be less sensitive to the consequences of their refusals for their friendships than are girls. Clearly, this speculation requires further study.

Conclusions

This study has a few limitations that should be acknowledged. Although the observational design provided us with rich data in children's every-day environment, the sample size is relatively small and the duration of the observation was relatively short, which reduced the statistical power. Another possible limitation involved the presence of the research assistants and the video camera; however, after watching the tapes, almost all the parents reported that their child's behavior was typical. In addition, the sample included primarily two-parent, White, middle-class families, thus limiting generalizability of the findings. Future studies should extend this line of research by examining cultural, ethnic, and socioeconomic differences in how children communicate their prosocial refusals with siblings and friends. In addition, future studies should focus on both social partners'

behaviors and conduct sequential analyses to understand how children respond to prosocial failures/refusals.

Nevertheless, our study has several important implications. This is one of the first studies to emphasize the role of prosocial refusals as a significant contributor to the development of prosociality in early and middle childhood (for a toddler study, see Waugh & Brownell, 2017). In addition, the findings enrich the constructivist-interactionist approach to prosocial development (e.g., Carpendale & Lewis, 2015; Dahl, 2018) by showing the prevalence of prosocial refusals during children's everyday interactions with their sibling and friend, as well as the ways in which these refusals are displayed in these two close relationship contexts. In fact, our findings illustrate that, from early to middle childhood, children's strategies to refuse acting prosocially undertake developmental changes that befit their more advanced sociocognitive and relational skills. Importantly, studying sibling- and friend-directed prosociality in children's everyday environments allowed an ecologically valid examination of children's prosocial development, which provides a crucial complement to laboratory-based studies on prosocial development (Dahl, 2017). Finally, findings highlighted the influence of the relationship context, as well as age-related changes, on the development of children's prosocial engagement and refusals. Overall, these novel findings enhance our knowledge about the ways in which children reject acting prosocially from early to middle childhood in the context of close relationships.

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