The Use of Cooperative and Surrogate Alliances during Naturalistic Polyadic Family Conflicts

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ABSTRACT

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Polyadic family conflicts and the use of alliances were examined in 39 families during naturalistic home observations of mothers (*M* age = 32.8 years), fathers (*M* age = 34.6 years), older (*M* age = 6.3 years) and younger siblings (*M* age = 4.4 years). The data included transcripts of audio-recorded researcher notes and family member verbalizations for each of the six 90-minute sessions. Using these transcripts, conflict initiators, topics, and resolutions, as well as additional party roles (e.g., alliance, mediator; Black & Baumgartner, 1983) were coded. To distinguish between the amount of support that allies provided to the conflict, alliances were separated into two categories: Cooperative and surrogate alliances. The findings revealed that despite all family members being involved in polyadic conflicts, children tended to be initiators, while parents became involved as additional parties. Alliances occurred more often than the other additional party roles, were likely to be formed when conflicts arose about obnoxious behaviours, and often resulted in the alliance achieving their goals and winning the conflict. Intergenerational alliances (i.e., parent-child) were more likely to be formed than intra-generational alliances (e.g., parental). A preliminary content analysis found that cooperative and surrogate alliances were quantitatively different with respect to the number of turns that allies used when supporting a combatant. Moreover, rule enforcement, control, informational, repetition, and induction were identified as resources that allies used to support their side. Results are discussed relative to literature and theory, with respect to understanding each family member's social and metacognitive skills and understanding.

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Introduction

Social relationships, especially those within a family, represent a crucial aspect of an individual's life and development. Within the family, the literature has suggested that the bidirectional interactions that individuals have with various members have illuminated both the mutual (e.g., siblings; Carpendale & Lewis, 2006) and unilateral effects (e.g., parents; Dunn, 2002; Hartup, 1989; Maccoby, 2007) that various members have on one another's positive social development. These findings appear to suggest consistently positive interactions develop as a result of the closeness of the family and their long co-constructed histories. However, although families may be close and know one another very well, conflicts between family members are inevitable (Emery, 1992). With respect to relationships within the family (e.g., parent-child, sibling), much of the literature regarding conflicts has focused on children's dyadic conflict resolution strategies (e.g., DeHart, 1999; Howe, Rinaldi, Jennings, & Petrakos, 2002; Recchia & Howe, 2009), as well as parental intervention into conflicts (e.g., Perlman & Ross, 1997; Smith & Ross, 2007). Aside from these topics, research that has examined the nature and dynamics of conflicts during polyadic family interactions (i.e., where there are three or more parties involved), in which parents and children are fighting with each other and taking sides is scarce. The purpose of this thesis is to examine polyadic family conflicts and their use of alliances during conflicts.

Triadic and Quadratic Social Interactions

In groups such as families and peer circles, dyadic interactions and conversations are common (e.g., Howe et al., 2002); however, they are not the sole means of socializing. During any given interaction or conversation, additional members may

become involved and contribute to the ongoing dyadic interactions. As such, what was once a dyadic interaction may now have evolved into a polyadic interaction, which is defined as an interaction between at least three individuals. For polyadic interactions to be successful, individuals must coordinate how they interact with each person. For example, in dyadic interactions, family members only needed to focus their attention on the relationship with the person with whom they are interacting. However, with polyadic interactions, this is no longer the case; rather, family members must not only consider the relationship and how they interact with the initial person with whom they were interacting, but they must also consider these variables when other members become involved (Lindsey & Caldera, 2006). Given the coordination that is required, engaging in these types of interactions are learned skills, which previous research has suggested can begin around 24 months in age (Ishikawa & Hay, 2006).

From a research perspective, the investigation of polyadic interactions, especially within the family is rare (Leaper, Anderson, & Sanders, 1998). Given the potential for these types of interactions within groups of individuals, their investigation is both warranted and encouraged (Moreland, 2010) on both empirical and theoretical grounds. Especially in the case of families, understanding polyadic interactions (i.e., interactions involving three or more individuals) can aid in understanding the functioning and interdependence between family members (Gjerde, 1986). As a result, the first purpose of this study was to provide some insight into family conflicts when there are at least three members contributing to the conflicts. In doing so, this study will add to the a body of research that complements the dyadic conflict and relations literature, in addition to

providing valuable information with respect to analyzing and understanding polyadic group interactions.

The Family Relationship

The family and the relationships that comprise the family unit represent some of the first and most important interactions for children. Within the family unit, a number of subsystems exist; namely, there are at least three types of relationships that exist. The first is the marital relationship, which consists of the adult partners in the family (i.e., the mother and father). The second type is the sibling relationship between the children of the family, while the last type is the parent-child relationship, which consists of the relations that each parent has with each of their children. Hinde (1979), Dunn (1983), and Hartup (1989) each recognized these relationships and separated them into two distinct categories. One is considered as hierarchical (i.e., parent-child), while the other is reciprocal, or more equal. Dunn (1983) described the sibling relationship as including (a) hierarchical or complementary interactions, in that older siblings represent a higher authority based on their age and knowledge, (b) reciprocal interactions (e.g., equal and returned exchanges such as during play and conflict), and (c) as characterized by their long history of interactions, and children's interests in one another. Unlike siblings, the parent-child relationship can be considered solely complementary, based on the unequal authority, power, and age of the parent alone, while the marital relationship can be seen as more reciprocal. On their own, these sub-types represent the different relationships through which an individual can develop their socialization skills, which is important to consider; however, it may be more beneficial to consider the family relationship as a whole rather than considering only these subsystems.

In addition to each relationship's use of complementary and reciprocal interactions, the family unit is dynamic, wherein the relationships are both consistently uniquely influenced by and can affect the other relationships within the rest of the family. Parke and Buriel (2006) posited that although there are many factors associated with a child's social development, the family unit and the relationships within them signify important and crucial relationships through which children begin to socialize. As a result, the authors' acknowledgement of both the relationships within the family and their effect on the functioning of the family unit represents a need to understand not only the dyadic relationships, but also the polyadic (i.e., three or more individuals) interactions that occur within them.

Similarly, Minuchin's (1985) six principles of family systems theory indicate that families can be understood in the context of systems and subsystems. Specifically, individuals within the family are subsystems and relations within the family (e.g., spousal relationship) represent complex subsystems, given the number of individuals that represent the subsystem. Thus, Minuchin's first two principles acknowledged and described families as being understood through their interdependence with one another, as well as the wholeness of the family, instead of considering each relationship separately. For example, in the context of family conflict, it may be more beneficial to understand the family as a whole and how each member's actions are contingent upon another's behaviour to determine the types of topics that lead to conflicts.

Thirdly, Minuchin argued that patterns within the family system are circular, where each relationship or individual within it elicits certain behaviours from others, depending on the context. In a conflict, for example, the older sibling may elicit feelings

of fear and repression from the younger sibling every time he or she takes something from the younger sibling. Therefore, the younger may be more submissive and restrained toward their older sibling or even highly resistant given the consistent pattern of the older's behaviour.

The fourth principle that Minuchin identified was that families have features that are homeostatic, which helps to maintain the consistency and stability of the patterns within families. While this can be positive for family functioning, the negative impact of maintaining patterns that are dysfunctional in one relationship can spread to other relationships within the family and can result in a poorly overall functioning family. For example, siblings who watch their parents constantly fight with one another may see this as a normal interaction and begin to fight each other as a result. Based on this, Minuchin's fifth principle argued that change and evolution are required to identify and decrease family rigidity and form more positive patterns of interaction. For example, when family members begin to witness increasingly verbally aggressive conflicts, they should work to reduce these conflicts by adopting other problem solving methods and even consult outside sources to assist them if they are needed.

Finally, Minuchin postulated that the subsystems within the family are separated by physical or implied boundaries. For example, the spousal relationship is uniquely different than the parent-child relationship based on what is discussed, and deemed as acceptable and appropriate behaviour in both relationships. With this in mind, families should aim to maintain these boundaries because should they break down, Minuchin argued that the dysfunction could have adverse effects on the family as a whole. In sum, Minuchin's ideas provide a guiding framework that are critical for researching and

understanding the dynamic nature of family functioning and conflict, which will be discussed in the next section.

Conflict

Although families are very important to a child's development (e.g., Christensen & Margolin, 1988; Parke & Buriel, 2006), the relationships within the unit are not immune to conflict (e.g., Dunn & Munn, 1985; Vuchinich, Emery, & Cassidy, 1988). Generally, conflicts represent behaviours or actions that are displayed by one person that are incompatible with another person's behaviour or action; thus they are opposed (Hay & Ross, 1982). Classic theorists such as Vygotsky (1978) argued that children's development is fostered through interactions with more experienced individuals, while Piaget (1965) argued that an individual's interpersonal skills can be developed through their exposure and experiences in conflict. As a result, this makes conflict an important context through which to examine children's socio-emotional and cognitive development.

Overall, conflict has typically been seen as a negative interaction; however, being involved in conflicts also has some positive benefits associated with it. For example, conflicts have been shown to help children to abide by social and familial rules, as well as understand the concepts of perspective-taking, which is an important milestone for the development of theory of mind (Howe, Ross, & Recchia, 2011; Slomkowski & Dunn, 1992). Moreover, conflicts can also help to teach children about effective communication techniques (Dunn & Munn, 1985). As with any sort of interactions, the combatants in conflicts within the family unit can include any combination of its members. Given the possible combinations, the following section will review family conflicts based on descriptive qualitative reports, as well some early perceptions of family conflict.

Family conflict. Conflict is inherent to all relationships and may not be limited to only two combatants. It can also extend to numerous relationships and the family is no exception. Due to the complexity in analyzing polyadic interactions, that is, each individual's actions and subsequent reactions in conflicts, the literature on family conflict is rather sparse. A study by Steinmetz (1977) is one of the earliest to examine conflicts within the family. She investigated how adults between the ages of 18 and 30 reflected on how their families resolved conflicts with one other to determine whether their conflicts led to violence, which resulted in familial abuse. Nearly all of the participants engaged in some form of verbal conflict, such as threatening another party, in addition to approximately half of the participants describing physical conflicts. For the outcomes, families who consistently resolved conflicts in one way (e.g., discussions) tended to resolve them similarly with other combatants. For example, if the mother and father were fighting and they consistently discussed their issues so as to resolve them, then the children who were fighting would typically use the same method to resolve their conflicts, thus showing an inter-generational transmission of conflict resolution strategies or an effect of modeling. For those reasons, Steinmetz argued that the social learning that takes place is very important for families to consider, given the significance and possibility of children observing and modeling behaviours that may or may not be healthy for conflict resolution.

In a similar exploratory study, Vuchinich (1987) sought to describe the verbal conflicts among family members that routinely occur. Specifically, he examined how often conflicts happened, who initiated the conflicts, how long they lasted, and how they ended. For family conflicts where there were at least two members present (i.e., any

combination or all of mother, father, older child, younger child), the frequency was smaller, with about three conflicts per dinner conversation, compared to sibling conflicts that occurred between approximately six to eight times an hour (e.g., Dunn & Munn, 1985; Perlman & Ross, 1997; Ross, Filyer, Lollis, Perlman, & Martin, 1994). Regarding who initiated family conflicts, Vuchinich (1987) reported no specific family member was responsible for initiating the majority of conflicts. Rather, the initiation of conflicts was generally evenly spread among all members initiating conflicts. When it came to the target of the conflicts, the children and mother were identified significantly more often than the father. Dunn (1983) also found that children spent as much time with their siblings as they did with their mothers, thus the relatively high rate at which mothers and siblings were fighting with one another compared to the father is not surprising. Additionally, Vuchinich (1987) reported that the length of the conflicts tended to be rather short, lasting an average of 4.6 turns between all combatants. Finally, when conflicts ended the most frequent outcome was a standoff, followed by one party submitting to another. Given how short conflicts tended to be as well as how they ended, perhaps problem solving may not be as important a resolution strategy as the maintenance of the relationship and rules of the family (Vuchinich et al., 1988). However, in instances where problem solving occurs, parents do tend to create and plan resolutions that can be implemented in the future (Recchia, Ross, & Vickar, 2010).

Unlike the previous studies that described polyadic conflict interactions, a study by Slomkowski and Dunn (1992) compared sibling and parent-child conflicts and whether the children's arguments differed when they fought with their siblings and with their mothers. Specifically, they examined children's and mothers' use of three types of

arguments. The first were other-oriented arguments, where individuals made moves that were in the interests of both parties. The second type of arguments was self-oriented, where the individual made moves that satisfied their personal interests. The last were no arguments, which were used when the individual did not justify, or provide reasons for the arguments. They found that when older siblings did not use arguments, the younger siblings imitated the same behaviour. Moreover, the same behaviour was observed when mothers and younger siblings were arguing with one another. Specifically, if the children did not produce any arguments or justifications, the mothers tended to respond in a similar manner. Additionally, the younger siblings often used self-oriented arguments to reflect their personal views. Interestingly, this occurred even when mothers and older siblings used other-oriented arguments. Slomkowski and Dunn argued that given the age of the younger children, who were approximately 33 months old, they were still thinking in an egocentric manner. When taking these findings into account, there seems to be a cyclical pattern of interaction where younger siblings respond similarly to others based on their lack of experience. However, as children grow older, their experiences with conflicts would be more diverse, thus providing them with other methods of resolving conflicts.

Parental involvement in sibling conflict. In the context of family conflict, the research on sibling conflicts that included parental intervention is important because they investigated the nature of the conflicts between siblings as well as the role that parents play in attempting to resolve disagreements. This appears to be a common view of family conflict, and while it does not take into consideration a change in the roles in conflict

(e.g., the parent as a combatant), it represents a first step in acknowledging the triadic nature of family interactions.

In two longitudinal studies, Dunn and Munn (1985) examined 2-year-old children's development in understanding perspectives, social rules, and emotional changes as a result of social understanding during family conflict. Their results showed that over the course of the second year, children significantly increased the frequency and elaboration with which they teased. Given the long co-constructed histories of siblings (Dunn, 1983), they were likely targets for each other's teasing because of their knowledge of one another. Due to the fact that the focal children in the study were younger siblings, their appeals to their mother occurred significantly more often when their older sibling acted in an oppositional way, as opposed to when younger sibling acted against their older sibling. Moreover, mothers used age-appropriate discussions with the younger children to communicate about their own or their older sibling's transgressions. In other words, for younger children, mothers tended to use simple words and adjusted their conversations accordingly. Dunn and Munn argued that as young children grow up, they become increasingly familiar with how to anger and frustrate others within their family, especially their siblings. Additionally, it is important to acknowledge that mothers and siblings recognize and acknowledge the age-related advances that young children display. This can be seen through the ways that mothers discuss issues, behaviours, and events with their children regarding transgressions in the conflict as well as discussing emotions. As previously mentioned, mothers tended to begin discussions using simple words, but as children grew older, mothers began to have deeper conversations using more justifications to explain an individual's actions. Hence,

it is important to recognize that there is an inherent complexity in examining conflicts with dyads simply because of the number of variables to consider. Adding third and fourth parties to conflicts can add to studying this complexity, thus making it more difficult, although not impossible to understand the dynamics of family conflict.

A study by Perlman and Ross (1997) using the same dataset as the present study examined how parents intervened in sibling conflict and how the conflicts changed as a result of their intervention. They found that parents were more likely to intervene into the conflict when children used more frequent verbal or physical power moves over their sibling, as well as when both siblings cried or justified their positions in some way. When parents did intervene, unsurprisingly, conflicts became less intense and more balanced with regards to the verbal or physical power used by siblings. Furthermore, siblings did tend to use more elaborate and complex strategies after their parents intervened, which lends credence to the notion of modeling and social learning. If children observe members of their families in conflict, there is a high probability that they might imitate the behaviours and actions that they see, however effective or ineffective that these strategies may be. In addition, children may be adapting the methods and behaviours that they see into ways that are more practical or relevant to them, resulting in two major issues. The first issue is that children recognize and model the behaviours in certain situations, while the second is that it is also possible that mothers were scaffolding the use of more complex strategies, which resulted in children modeling and modifying these actions to suit themselves. Thus, parental intervention into sibling conflict does have underlying benefits beyond simply resolving the conflict.

In another study using the same data, Ross and colleagues (1994) examined parents' intervention strategies in sibling conflicts. They observed 2-parent 2-sibling families where the children were between the ages of two and five years. The results showed that when children violated the family rules, parents often intervened to assist in resolving the conflict. Specifically, parents intervened verbally and justified their positions with the older sibling, but were more physical with the younger sibling. Additionally, parents typically remained unbiased when they intervened; however, they did tend to support the younger sibling when their rights or safety were violated. When this did happen, Ross and colleagues argued that the behaviour of the parents was similar to that of allies (i.e., those who support another individual) or surrogates (i.e., those who take over the conflict for an individual) that is described by Black and Baumgartner (1983). With respect to the settlement of conflicts, parents tended to exhibit behaviours that Black and Baumgartner (1983) described as being a judge, whereby they consistently addressed the issue of their children's dispute, influenced the outcome by taking a side, and enforced the resolution through their use of hierarchical power. Given these findings, it is apparent that parents are instrumental in their capacity to intervene into sibling conflicts and enforce outcomes.

Overall, the family unit represents a unique and critical relationship especially for young children as they are constantly observing and modeling behaviours displayed by their parents, as well as being guided by their parents. Moreover, conflicts are not limited to within-generation members (i.e., sibling, marital), and as Vuchinich (1987) reported, conflicts are common between a parent and their child. Moreover, the addition of a third party, namely a parent, has been shown to impact the resolution of the conflicts for

siblings. The next section will review the typologies of third-party intervention with a specific emphasis on alliances and their use in family conflicts.

Additional Third and Fourth Party Conflict Intervention

Generally, it is possible that conflicts can be resolved by the two individuals involved in the disagreements. However, when conflicts are complex or when both parties reach an impasse and cannot come to a resolution, a third party may need to intervene to assist in helping the conflict come to an end. When third parties enter into a conflict, their contributions will vary based on the amount of support they provide, to whom they provide it, how they may help to settle the conflicts, or they may become a combatant themselves.

In an attempt to describe third party roles in conflict, theoretical sociologists Black and Baumgartner (1983), argued for two typologies that range in their abilities to support parties and settle conflicts. With respect to settling conflicts, Black and Baumgartner identified five different types of roles that third parties can embody, with each role varying in the degree to which they authoritatively intervene. The minimal settlement role is the friendly peacemaker, where the third party attempts to influence both combatants to stop fighting without addressing the issue and attempting to help de-escalate the conflict. The second settlement role is the mediator, who enters into the conflict as an impartial third party, does not take either combatant's side, acknowledges the issues at hand, and encourages the combatants to reach a mutual compromise. The third settlement role is an arbitrator which is similar to a mediator in that they address the issues and do not take sides. However, arbitrators differ in that once they hear both sides, they make a decision about who is right or wrong. The fourth settlement role is the judge

(also known as an adjudicator), who are similar to arbitrators, however they have the ability to ensure the resolution is in place by using an appropriate means of enforcement. The final type of settlement, known as the repressive peacemaker, is one where the third party exercises authority more than in any of the other four roles. The repressive peacemaker seeks to end the conflict as quickly as possible and does not factor in any of the potential resulting consequences, but uses any means necessary, including violence to end the conflict.

Although third parties can take on a role to help ease conflict between combatants by settlement, they can be equally important in supporting and strengthening either combatant within the conflict. Black and Baumgartner (1983) identified five different types of roles that third parties can embody as support systems to the combatants. The first is the informer, who supports either party by providing facts or information that are relevant to the conflict or other party. Second, like informers, advisors provide their party with information and facts, but also give their opinions on how to manage the issue and assist in the development and execution of the strategy. The third type of support is the advocate, who openly supports a given party and pleads with them, whereas the previous types are not necessarily public with their support. The last two support roles that Black and Baumgartner (1983) described are allies and surrogates, respectively. In the most general sense, allies are similar to advocates, in that they are public in their support for a particular combatant. In addition, allies contribute their resources and power in order to give their side an advantage over the other parties involved in the conflict. Finally, surrogates represent the maximum amount of support that a party can receive in a conflict. Third parties who act as a surrogate will substitute themselves for the combatant

in the conflict in which they are involved. Essentially, they become the combatant in the conflict and relieve the original combatant of the risks and responsibilities of the conflict itself and allow them to step back from the conflict.

Given the sociological nature of this typology, there has only been one study known to date that has applied it in the psychological context, and as Ross and colleagues (1994) demonstrated, there is empirical support for using this model to explain behaviours in sibling conflict and parental intervention. A review of alliances in other relationships follows next.

Alliances

Alliances represent a unique relationship between two or more parties for the purposes of gaining an advantage in conflict. DeScioli and Kurzban (2009) postulated that human friendships are more like "alliance politics" (p. 1). Using game theory, a mathematical model that can generally describe how individuals engage in strategic decision-making and alliance techniques, Descioli and Kurzban identified two methods that could be used in the formation of alliances. The first is known as band-wagoning, where third parties support the side that possesses what they believe has the highest possibility of winning the conflict. The second method is known as the integrative spiral, or alliance-building. Using this method, individuals take a future-oriented approach where they support the side that they believe will later come to their help. Therefore, the relationship is built on balance and loyalty, as opposed to band-wagoning, which is based on a dominance hierarchy. Given that conflicts are generally won by the party that has the most number of supporters (Ross, Conant, Cheyne, & Alevizos, 1992), DeScioli and

Kurzban examined whether individuals would rank their close friends in ways that represent alliance-building or band-wagoning methods.

In three replicated studies, each with a different population (i.e., undergraduate students, participants in a major city, and an online survey), DeScioli and Kurzban (2009) measured whether participants ranked their friends egocentrically (i.e., how they perceive their loyalty to their friends) and allocentrically (i.e., how they perceive their friends' loyalties to them), as well as whether there were certain friendship properties that served as indicators for a higher ranking. For an alliance to be considered as such, the higher a friend was ranked was hypothesized to predict an alliance. Despite beliefs that friends might rank their friends equally, participants ranked their friends in an egocentric manner, which is consistent with the alliance-building method. Moreover, a strong predictor of alliance formation was found when participants were asked to think about how their friends would rank them. That is, their allocentric perception of how their loyalties were viewed by their friends predicted a higher friendship rank. DeScioli and Kurzban also argued that the alliance building process began when individuals only perceived and evaluated each other for the sole purpose of support. Thus, individuals' ideas of perceived ranking and support may serve to secure alliances and offer an alternative way of understanding friendships. In relation to family conflict, it is possible that certain family members such as children may side with their parents more than their siblings if they believe that they will gain something more in that alliance than another. However, in the case of sibling conflict, it is also possible that an alliance may form simply out of chance because the children are seeking the first available parent.

Nonetheless, it is possible that children form alliances early on, and the following section will review this research.

Alliances in childhood. While alliances tend to be seen among adolescents and adults, there is evidence of alliances in the social interactions of young toddlers. Ross and colleagues (1992) examined how kibbutz toddlers, who spent a large amount of time in each other's company, interacted with one another and how they intervened in peer conflicts. While alliances did not occur often in conflicts, they found that the toddlers entered into a triadic conflict either by a passive entry, where one of the initial combatants attacked a third party, or through an active entry where they entered into the conflict on their own volition. Of the children who actively entered into the conflict, the majority of them supported the victim in the conflict rather than the transgressor. With respect to the outcome of conflicts, children who received support of their peers won significantly more conflicts than they lost, confirming previous assertions made within the literature (e.g., DeScioli & Kurzban, 2009). In addition, although the toddlers did know one another, Ross and colleagues argued that friendships may not be necessary for alliances to form. Rather, they speculated that fairness may be more important and in a situation where the toddlers were interacting with strangers, they may offer their support equally to one side or another.

In a similar study, Strayer and Noel's (1986) ethological study of preschool children's social interactions and behaviour during triadic conflicts represents one of the earlier studies on alliances in childhood. Their 8-week observation found that friendships did not predict how preschool children entered into conflicts as third parties. Although alliances did not form as frequently when preschoolers entered in as third parties, they

were significantly more likely to support the victim than the original transgressor. Furthermore, the preschoolers who were seen as more dominant intervened more often than those of a more submissive status with the goal of defending the victim or even trying to attract their own allies. The latter goal of attracting allies resembles the argument proposed by DeScioli and Kurzban (2009), who argued that individuals use the future-oriented alliance-building method rather than band-wagoning. Thus, even younger children seemed to be employing this method in the Strayer and Noel study.

A Colombian study by Chaux (2005) highlighted the role of third parties in peer conflicts as well as the roles that teachers and parents play within these conflicts. Generally, he investigated the frequency with which children and adults intervene in children's conflicts, as well as whether they used methods that they preferred or wished they had used. Through interviews with children between 8- to 15-years-old, Chaux demonstrated that the most commonly identified third party role was that of a supporter, which is similar to work by Strayer and Noel (1986) and Ross and colleagues (1992). Chaux also noted that children advised, advocated, and allied with the combatants as a means to support them, thus showing differing levels of support for the party with which they sided, as noted by Black and Baumgartner (1983). Moreover, when children were friends with one of the third parties, they sided with their friends significantly more frequently than if they were not friends. Interestingly, when children were friends with both parties, they either did not get involved in the conflict or tried to promote a settlement or a compromise amongst the parties involved. While it is natural to support the person with whom one is familiar, the children noted that when they looked back on the conflict, they believed that they should have promoted a settlement more often than

supported one side or not get involved. With respect to the teachers and parents, it appeared they were involved in a number of conflicts. When asked about the teachers, children reported that the teachers most commonly tried to seek a settlement through the use of scolding, threatening to impose penalties or actually penalizing both parties. However, teachers did also tend to resolve conflicts through settlements by friendly means, thus decreasing any animosity between the combatants. Similarly, parents tended to resolve conflicts through repressive means similar to teachers; however parents also took over their children's conflicts, thus replacing their child with themselves, and thrusting themselves into a surrogate role, as defined by Black and Baumgartner (1983).

Based on Strayer and Noel's (1986), Ross and colleagues' (1992), and Chaux's (2005) findings, it is evident that alliances occur in young children's and adolescents' social relationships even if they do not understand the intricacies of alliances. In addition, alliances do not appear to be limited to certain populations, ages, or relationships, as the Chaux's study demonstrates. In the next section, alliances within the family are reviewed to understand their significance in the context of family conflict.

Alliances in family conflict. The literature on alliances in the context of family conflict is relatively sparse. Conversely, in the area of family therapy, the literature on the topic has focused on parent-child alliance formations in marital conflict and discord, associations with child psychopathology, as well as family alliance effectiveness and alliance techniques in family therapy (e.g., Diamond, Liddle, Hogue, & Dakof, 1999; Shelef, Diamond, Diamond, & Liddle, 2005). For example, Christensen and Margolin (1988) conducted a study that examined whether weak marital alliances, strong cross-generational alliances, and conflict were associated with children's conduct problems. In

comparison with families who were not distressed, that is, they did not have weak relations or children exhibiting a conduct disorder, distressed families engaged in conflicts more frequently within and across generations. In addition, distressed families exhibited weak and negative alliances, as evidenced by observed tension during the research observations. Given the fact that distressed families had to deal with the pressure of having a child with conduct problems, these troubles extended to other areas of the family relationship, which is consistent with Minuchin's (1985) principle of interdependence and interconnectedness within the family subsystems. As such, the literature that has been described in the context of family therapy relies more on building relationships within the family and dealing with the children's psychopathology, whereas the focus of alliances in the family context literature has examined its use in how partners in the alliance gain an advantage over the other side. As such, the following is a review of the literature that does exist with respect to alliances in family conflict.

A study by Vuchinich and colleagues (1988) is one of the first to examine alliances in the context of family conflict. Through observed actual family dinner conversations about previous conflicts, they found that over half of the conflicts involved an alliance. Moreover, family members who formed alliances with combatants made more conflict continuation moves, which were actions or oppositions to another party. In looking at the dynamics of family alliances, parents tended to side with each other in conflicts when children were fighting against one another. In addition, children sided with parents just as equally as they sided with one another. With regards to the outcomes of the conflicts, it is interesting that more than half of the outcomes ended in a standoff,

with the conflicting parties either dropping the issue or not coming to a resolution, or with a submission, where one party gave into the other.

In sum, although the research on family conflict and alliances is limited, the results provided by these studies are beginning to describe the dynamics of family conflict. In particular, the context of family conflict is very important to understand for a number of empirical and theoretical reasons, but mainly because of the implications regarding what is learned at home may be internalized by a child and demonstrated later in other social relationships (e.g., Ross & Howe, 2009). What is most important to consider is that in any type of social interaction, there are often more than two parties who interact with one another. Most of the research to date has focused on these dyadic exchanges and only a few studies (e.g., Vuchinich et al., 1988) have attempted to understand the interactions between more than two people. As a result, the concept of alliances fits well in this discussion given its reliance on the interaction among more than two individuals and also is another avenue of research that has been understudied with respect to familial interactions. Taking these points into account, the present study aims to address these important issues and provide an updated view of polyadic family conflicts and alliances.

The Present Study

Although the concept of alliances has been studied in a variety of contexts ranging from toddler relations to world politics, it has been scarcely researched in the context of family relations and conflict. Equally as scarce is the research on family conflict where there are at least three active combatants, perhaps due to the complex nature of analyzing interactions among polyadic interactions. As a result, the purpose of

this study was to investigate the nature and dynamics of alliances in polyadic family conflict.

Specifically, this study focused on the concept of alliances in the context of family conflict. This differs from previous studies in that it focuses on conflicts that do not occur in one setting, such as the family dinner setting that was used by Vuchinich and colleagues (1988), but rather occur during naturalistic ongoing interactions in the home setting. By having the opportunity to naturally observe conflicts in different settings, the possibility exists that there may be more diverse sorts of conflicts and conflict participants that can occur than just at the dinner table. Moreover, it can help to highlight the fact that conflicts occur daily and throughout the home over anything that children and parents deem important to them at the time. In addition, the conflicts do not have to begin with the children fighting with one another that result in parental intervention (e.g., Ross et al., 1994). For the present study, any combination of family members could represent the initial combatants and the conflicts could occur in a variety of settings within the house. It should be noted that the purpose of the dataset that was used for this study focused specifically on sibling conflict for children between 4- and 6-years of age (Ross et al., 1994). As a result, instances of conflicts that included parents as combatants typically dealt with issues related to the siblings' behaviours towards each other. However, investigating the concept of alliances, and exploring the dynamics of polyadic family conflict, has to my knowledge, not been examined with this dataset. In addition, the present study benefits from the data in its use of naturalistic observations and transcripts of verbal and non-verbal language, as well as behaviours that were recorded and transcribed for each family.

Moreover, although Black and Baumgartner's (1983) typologies of the degrees of support and settlement has laid the groundwork for establishing the wide range of roles that third parties can assume within conflicts, they are still open to be reinterpreted. Given the evidence and descriptions provided, the ally and surrogate dimensions of the levels of support seem to suggest differing levels of a similar construct. In other words, alliance and surrogates both publicly support their respective parties and use their resources and influence to strengthen their side. The only difference between the two is the amount of support provided; specifically, surrogates replace the initial combatant in the conflict while still supporting their side, whereas alliances appear to be represented as an equal partnership where both parties contribute equally to support their side.

Based on this, it is possible that both alliances and surrogates may serve as subtypes of a larger construct. As a result, I propose that alliances represent a construct of public support and the contribution of resources and influence by those parties who support each other. Moreover, I propose that two subtypes of alliances exist: (a) Cooperative alliances (i.e., based on equality in turns and actions), and (b) surrogate alliances (i.e., a supporter taking the conflict over from the combatant). Although cooperative alliances do not appear in the literature, Black and Baumgartner (1983), as well as other researchers (e.g., Vuchinich et al., 1988) generally define alliances as a partnership where a person supports another person (e.g., a mother supports her older child). There is no mention of how much support is offered. With surrogate alliances, it is known that a combatant relinquishes all of the risks and control to another party, thus suggesting an imbalanced relationship, regardless of whether it is voluntary or not. Conversely, there are alliances that exist that are based on an equal and reciprocal

partnership, and thus arguing for a cooperative alliance subtype may provide a clearer distinction between the two partnerships. By engaging in a cooperative alliance, partners will become interdependent about what they both bring to their cause, and rely on those resources. As a result, all of the individuals who are involved in the alliance will become equally responsible for the outcome that would affect all parties, which is consistent with Minuchin's (1985) notion of wholeness and interdependence within the relationship. In contrast, one of the partners in a surrogate alliance would become solely dependent on the other person(s) within that alliance so as to secure a favourable outcome without having to contribute many resources, if any. Therefore, the onus is placed completely on the surrogate partner and given the one-sidedness of the alliance, the surrogate may not be able to depend on another person in the partnership.

In sum, this project will add to and expand the literature in a way that will perhaps define more clearly the concept of alliances and the subtypes that exist, as well as examine its dynamics and structure as it occurs within a conflict. In addition, this study will also bring into the forefront of social and family relationships literature the idea that alliances exist in many relationships whether they are obvious or not. By doing so, it may partially support existing hypotheses that suggest that alliances develop in friendships or relationships and are based on the notion of support during future conflicts or problems (e.g., DeScioli & Kurzban, 2009). In doing so, this may provide a yet another way of viewing human relationships by applying a whole world view of alliances (i.e., global alliances) and applying it to the individuals' experiences with personal relationships.

Although based on the extant literature (e.g., Ross et al., 1992; Vuchinich, 1987; Vuchinich et al., 1988) on family conflicts, the present study addressed a number of areas

that to the knowledge of the author have not been previously investigated. First, the lack of empirical understanding on familial conflict situations when alliances were formed was examined. Secondly, the types of resources and how much support was offered in alliances during polyadic family conflicts were investigated. Using an extension of Black and Baumgartner's (1983) theory, the following research questions will be investigated:

1. Given that at least one or both siblings are involved in the conflict, which parent enters into conflict more often and what role (e.g., alliance, mediator, judge) do they often take?
2. How often do alliances form in family conflict?
3. Who are the common family members within an alliance and with whom do they side?
4. What types of conflicts (e.g., ownership, aggressive acts) elicit alliances?
5. What is the association between alliances and the outcomes of conflicts?
6. Is there a typology of alliances that identifies two sub-types of alliances (i.e., cooperative and surrogate) that depend on the level of support it provides?
7. What resources do family members use when alliances are formed?

Due to the exploratory nature of this project, the following hypotheses, in addition to the research questions, will be tested based on support from the sibling and parental intervention literature:

1. Based on the amount of time mothers spend with their siblings and that they are primary interventionists in sibling conflict (Dunn, 1983; Vuchinich, 1987), mothers are predicted to be more involved in polyadic conflicts than fathers.

2. Following from Black and Baumgartner's (1983) ideas about the roles of third parties in conflicts, alliances are predicted to be most common type of involvement of polyadic conflict.
3. Consistent with Vuchinich and colleagues (1988), polyadic conflicts that involve alliances are predicted to end in more standoffs than submissions or compromises.

Method

Participants

The study included 39 lower- and middle-class Caucasian families with two parents and at least two children. The families were recruited from a medium-sized industrial city in southwestern Ontario, Canada using a variety of methods that included advertisements in local newspapers, contacting preschools, and word of mouth. It was part of a larger longitudinal study conducted when the siblings were 2- and 4 years old, and 4- and 6 years old at time points 1 and 2, respectively (see Ross et al., 1994; Perlman & Ross, 1997 for additional details). It should be noted that some families had a third sibling who was under the age of 4, and were included in this study. Ethical approval for the present study was given to Nina Howe by the Concordia University Human Research Ethics Committee.

The data from the second time point was used for this study, where the older children's ages ranged from 5.4 to 7 years (M = 6.3, SD = .42), while the range for the younger children's ages were 3.8 to 4.7 years (M = 4.4, SD = .21). The siblings' age gap ranged from 1.4 to 2.5 years (M = 1.94, SD = .28). The average ages for the parents at time point 2 were 32.8 years for mothers and 34.6 years for fathers, and their levels of education varied: 29% obtained a university degree, 15% completed a college program, 41% had only a high school diploma, while 15% did not complete high school.

Procedure

The majority of families (n = 32) participated in six sessions conducted at home, while the rest (n = 7) were observed for seven sessions. Each family was observed for 90 minutes in each session, providing a total of 9 hours for six sessions and 10.5 hours for

seven sessions. Two trained female observers were assigned to each family to maintain consistency; however, only one was present during each session to limit intrusiveness. Observers did not participate in any interactions with the family members and responded with as few comments as possible if approached. The children were specifically instructed to not interact with the observer. Distractions such as having the television on or playing video games during the sessions were not allowed. If any family member did not follow the instructions, the observer stopped recording and waited for the participants to comply, or they scheduled another session with the family that was more convenient.

During each session, the observer followed the children, and then proceeded to describe and record all of the interactions between the children and other family members onto one track of a stereo tape recorder. The second track recorded each family member's speech and other verbalizations that occurred during the session. The sessions were transcribed after each visit, and the transcripts detailed each family member's verbal language and physical actions towards another member (e.g., protest, reprimand, justification). Reliability was achieved by two research assistants who recorded the behaviours of family members in the participants' homes based on ten 20-minute observations prior to the collection of data. The ten sessions were then transcribed, and percent agreement for the presence of each coded behaviour was .86 (see Perlman, Garfinkel, & Turrell, 2007).

Given that the transcripts were obtained from Dr. Ross, no information that could potentially identify the families was provided, and all families received an anonymous identification number to ensure their confidentiality.

Coding

The coding for the present study was based on previous research by DeHart (1999), Howe and colleagues (2002), Ross and colleagues (1994), Shantz, (1987), and Vuchinich and colleagues (1988) to identify, describe, and quantify conflicts and alliances.

Identification of polyadic conflict sequences. Within the transcripts, research assistants recorded various situations that occurred during the session. Such situations included when family members were involved in games or in conflict, which is defined in the next section. Sequences coded as family conflict on the original transcripts were used to identify conflicts that involved a combination of one parent and a child as the initial combatants and subsequently included other members of the family. These sequences were identified by Ross and colleagues (1994) and confirmed by the author and a trained research assistant. Percent agreement on the identification of conflict sequences using 20-minute observations from ten families was .91 (see Perlman et al., 2007) Although conflicts may have started between two family members, the inclusion of additional members into the conflict transformed it into a polyadic conflict, that is, a conflict that involved at least three members of the family. To ensure that the identified sequences were accurate in describing polyadic conflicts, two trained research assistants re-read and came to an agreement that each sequence involved more than two family members and that it began with an opposition and ended with some resolution or by changing the topic.

Conflict Coding. Consistent with the definition set by Hay and Ross (1982), conflict was operationally defined as an incompatibility of behaviours or goals by an individual that is protested or resisted by another. This definition emphasized that conflict

began with the protest of an initial action, thus describing the incompatibility in the goals and behaviours of the combatants, rather than beginning with an initial action that goes unreciprocated. After the polyadic conflict sequences were identified, the sequences were coded using the following variables: (a) initiator (i.e., mother, father, older sibling, younger sibling, baby), (b) initial combatants (i.e., combination of the initiator and the initial resistors(s)), (c) how the conflict was initiated (e.g., protesting, teasing), (d) additional members (i.e., members of the family who did not initiate the conflict but who become involved), (e) how additional members intervened (e.g., mediator, additional combatant, alliance), (f) the topic of the conflict (e.g., obnoxious behaviour, rule violation), (g) how it was resolved (i.e., submission, compromise, standoff), (h) which family member's direct action led to a resolution, and (i) the winners and losers of the conflict. A detailed coding scheme is presented in Appendix A. It should be noted that after the coding was completed, two topics of conflicts were collapsed into other categories. The first was regarding access to parents (n = 4), and this was collapsed into plans for play, given that many of the conflicts involved playing games. The second was about procedures (n = 13), and this was added to conflicts about controlling, given the conceptual similarities in order for family members to do things in certain ways.

Additional parties and roles. After the conflicts were coded, the involvement of the additional members in each of the sequences was examined. A detailed coding scheme is presented in Appendix B. Specifically, the identity of the additional member was identified (i.e., mother, father, older sibling, younger sibling, baby), in addition to the role they took on during the conflict. As additional members in the conflicts, the potential roles could include (see Appendix A): (a) distractor (i.e., explicit attempt to distract

combatants from the conflict in order to end it), (b) additional combatant (i.e., do not support either initial fighter, brings own views into conflict); (c) judge (i.e., attempt to end conflict by giving combatants orders and enforcing them to end the conflict), (c) mediator (i.e., attempt to listen to both sides, make suggestions, reframe issues, encourage compromise), or (d) alliance (i.e., providing support for an initial combatant).

Alliances. Consistent with the definition by Black and Baumgartner (1983), alliances were defined as an individual who supports a combatant by contributing their resources to sway the outcome of the conflict in their favour.

Given the lack of clarity on how much allies support a combatant, two subtypes of alliances were operationalized following from the model of third party support provided by Black and Baumgartner (1983): Cooperative alliances and surrogate alliances (see Appendix A). Cooperative alliances were defined as alliances where the combatants and their allies contributed equally to the conflict. An example of a cooperative alliance was when a father allied with the older sibling against the younger sibling. As the conflict progressed, both the father and the older sibling equally contributed by arguing for their side, which was determined by how often they spoke in the conflict, using the verbal turns for each actor in the conflict. If the verbalizations appeared equal among the combatants and their allies, it was coded as a cooperative alliance; however, if an ally spoke more than the combatant, and the combatant did not contribute to the conflict after forming the alliance, it was coded as a surrogate alliance. Table 1 (presented at the end of this section) shows an excerpt from a transcript to highlight a cooperative alliance.

A surrogate alliance is defined as an alliance where the additional parties support an initial combatant by substituting themselves into the conflict, thus they are speaking

and fighting for the combatant. An example of a surrogate alliance was when a mother and the younger sibling entered into an alliance against the older sibling, and instead of allowing the younger child to contribute to the conflict, the mother took over arguing for him. Table 2 shows a conversational excerpt that was coded for a surrogate alliance (presented at the end of this section).

Reliability

Interrater reliability for conflict coding was established with a trained research assistant for 20 percent ($N = 132$) of the sequences. Cohen's *kappa* revealed a high level of agreement regarding the identification of the combatants, as well as the conflict topics and resolutions ($\kappa = .92$). Interrater reliability revealed high overall agreement for the additional parties ($\kappa = .97$) and their roles ($\kappa = .96$). Any discrepancies or issues with coding were resolved via discussion with the reliability coder.

Table 1

Coding Example of a Cooperative Alliance in a Polyadic Family Conflict

Actor	*Target*	*Role*	*Allied to Whom*	*Turn*	*Turn in Alliance*	*Conversation*
Y	F	Combatant		1		I wasn't… (In response to not taking a correct shot with a marble)
F	Y	Combatant		1		Mark.
Y	F	Combatant		2		I went…
F	Y	Combatant		2		It doesn't matter, you threw your marble. It doesn't count. It's done.
O	Y	Ally	F	1	1	You lose your turn.
Y	FO	Combatant		3		(Goes to get marble. Y wants to take shot over)
F	Y	Combatant		3	1	It's done Mark.
O	Y	Ally	F	2	2	Lose your turn.
F	Y	Combatant		4	2	Well, if you hit it, it doesn't count Mark.
F	Y	Combatant		5	3	So, just so you know.

Note. F = Father; Y = Younger Child (Mark); O = Older Child (Unnamed). Names have been changed to maintain confidentiality.

Table 2

Coding Example of a Surrogate Alliance in a Polyadic Family Conflict

Actor	*Target*	*Role*	*Allied to Whom*	*Turn*	*Turn in Alliance*	*Conversation*
O	M	Combatant		1		Mom, I didn't get one (popsicle).
M	O	Combatant		1		You didn't get one?
O	M	Combatant		2		Christine ate a whole one.
M	O	Combatant		2		Why, were you bad?
F	O	Ally	M	1	1	Say "Yes, mother dear, I was."
O	F/M	Combatant		3		(Whines)
F	O	Ally	M	2	2	No, you weren't bad, you were good when you gave it to her.
O	F	Combatant		4		Why didn't…I put it on the counter, 'cause Maggie wanted, so Maggie could have some.
F	O	Ally	M	3	3	Well, so that's how Christine ate it.

Note. M = Mother; F = Father; O = Older Child (Maggie); B = Baby (Christine). Names have been changed to maintain confidentiality.

Results

Descriptive Information

An overview of the descriptive statistics for the conflict topics and resolutions, as well as members' roles in polyadic conflicts is included in this section. In total, 36 of 39 families engaged in 306 polyadic conflicts (M = 8.39, SD = 8.01, range = 1–28), which resulted in approximately one conflict per hour. Only three families did not participate in polyadic conflicts, and were thus omitted from further analyses. It should be noted that the number of moves in each of the conflict sequences varied (M = 24.70, SD = 30.92, range = 0–320). Given the variation in how many conflicts each family participated in, as well as how long they lasted, proportion scores were calculated prior to data analysis to control for these variables. For instance, the total proportion of the topics of conflicts for each family equalled the frequency of each topic (i.e., separate frequency of conceptual information, controlling, obnoxious behaviour, access to parent, ownership, rule violation, procedures, plans for play) divided by the total number of conflicts per family. Due to their rare occurrences, the fifth parties in polyadic conflicts were dropped (n = 9). Raw score means, standard deviations, and ranges for topics, resolutions, and additional roles in polyadic conflicts are presented in Table 3 (all Tables are found at the end of the Results section). It should also be noted that just over half of the families engaged in polyadic conflicts where the father was present and participating (n = 21). As a result, the proportion scores for the fathers used the father's total use of an additional party role (e.g., alliance) when they were present rather than the total use of all sequences when they were not, so as to acknowledge his contribution equally, and not under-represent it by using the families' total scores on these variables.

Polyadic Family Conflict Issues

To gain an understanding of the topics and resolutions in polyadic family conflicts and how they were resolved, a series of 6 (topic) x 3 (resolution) repeated measures ANOVAs were conducted. A significant main effect was found for the topic, $F(3.01, 105.18) = 10.94$, $p < .001$, $\eta^2 = .24$, using the Greenhouse-Geisser correction to adjust for its violation of Mauchly's Test of Sphericity. *Post hoc* tests using the Bonferroni correction indicated that topics related to obnoxious ($M = .38$, $SD = .31$) and controlling behaviours ($M = .20$, $SD = .23$), along with ownership ($M = .17$, $SD = .22$) and rule violations ($M = .19$, $SD = .27$) occurred significantly more often than conflicts about conceptual information ($M = .05$, $SD = .11$) and plans for play ($M = .01$, $SD = .04$). Moreover, the results also revealed a significant main effect of resolution, $F(1.17, 41.06) = 35.40$, $p < .001$, $\eta^2 = .50$, using the adjusted Greenhouse-Geisser correction. Pairwise comparisons using the Bonferroni correction found that submissions ($M = .64$, $SD = .30$) and standoffs ($M = .31$, $SD = .28$) occurred significantly more often than compromises ($M = .05$, $SD = .10$).

In order to compare the resolution strategies that were used during each type of conflicts, a 4 (topic) x 2 (resolution) repeated measures ANOVA was conducted. It should be noted that of the six topics, conflicts regarding plans for play ($n = 4$) and conceptual information ($n = 8$) occurred rarely, thus they were removed from this test. Additionally, compromises occurred only 14 times out of the 306 polyadic conflicts, and further reduced the degrees of freedom to conduct the repeated measures test, and were thus removed. The result showed a significant interaction between the topic of the conflict and the resolution, $F(3, 42) = 3.68$, $p < .05$, $\eta^2 = .21$ (see Figure 1 at the end of

the Results section). Additional *post hoc* tests using the Bonferroni correction revealed that conflicts about controlling behaviours and rule violations were significantly more likely to end through submission (*M*s = .86, .94, *SD* = .22, .09, respectively) than a standoff (*M*s = .14, .06, *SE* = .26, .09, respectively). This was also evident for conflicts regarding obnoxious behaviours, as they were more likely to be resolved through submission (*M* = .70, *SD* = .23) rather than a standoff (*M* = .30, *SD* = .23). However, conflicts about ownership were no more likely to be resolved through submission (*M* = .63, *SD* = .43) than through a standoff (*M* = .37, *SD* = .43).

Family Member Involvement in Polyadic Conflicts

In order to test the hypothesis regarding mothers being involved in more polyadic conflicts both as an initiator and a tertiary party than fathers, a series of 4 (family member) x 2 (type of involvement) repeated measures ANOVAs were conducted. Given that all conflicts would encompass some combination of parents and siblings, it was expected that mothers would participate more often in conflicts. The results revealed an interaction between the type of involvement in the conflict (i.e., initiator or tertiary party) and the actors in the conflict, $F(3, 105) = 24.17$, $p < .001$, $\eta^2 = .41$; the descriptive information on family members' participation in conflicts as initial and tertiary parties is presented in Table 4. Further *post hoc* tests using the Bonferroni correction showed that polyadic conflicts were more than likely to be initiated by older (*M* = .63, *SD* = .28) or the younger (*M* = .59, *SD* = .26) siblings than mothers (*M* = .22, *SD* = .21) or fathers (*M* = .22, *SD* = .26). Conversely, even though mothers and fathers were involved as initiators of conflicts themselves, they were more likely to be involved in conflicts as tertiary parties (*M*s = .78, .78, *SD*s = .26, .21, respectively) than the older (*M* = .37, *SD* = .28) or

younger (M = .41, SD = .26) siblings. Given these findings, the hypothesis was not supported by the fact that fathers were equally as involved in polyadic family conflicts as mothers.

Alliances as Additional Roles in Polyadic Conflicts

To test the hypothesis that alliances would occur more often than the other additional party roles (i.e., judge, mediator, additional combatant, distractor) in polyadic conflicts, a repeated measures ANOVA was conducted on the proportioned quotient of additional roles. This was calculated by taking the sum of occurrences of each additional role and dividing it by the total occurrences of additional roles for each family. A significant main effect of role was found, $F(2.62, 91.74) = 12.62$, $p < .001$, $\eta^2 = .27$, using the Greenhouse-Geisser correction to adjust for the violation of Mauchly's Test of Sphericity. Means and standard deviations for each additional role in polyadic conflicts are described in Table 5. In particular, alliances occurred significantly most often (M = .44, SD = .30), followed by mediators (M = .23, SD = .28), and additional combatants (M = .19, SD = .22). Based on this, the hypothesis that alliances would occur more often was supported.

Furthermore, this finding was supported by additional repeated measures tests that yielded similar findings with respect to the various members of the family. First, a 2 (parent) x 5 (additional role) repeated measures ANOVA was used to determine the role that mothers and fathers most likely took on as additional parties in polyadic conflicts. The results showed a non-significant interaction between parent and polyadic conflict role, $F(1.96, 31.40) = 2.05$, *ns*. However, there was a significant main effect of role, $F(1.97, 31.47) = 54.00$, $p < .001$, $\eta^2 = .77$. Both results were adjusted using the

Greenhouse-Geisser correction to account for their violation of Mauchly's Test of Sphericity. For both fathers and mothers, *post hoc* comparisons using the Bonferroni correction indicated they were more likely to be part of an alliance with one of the initial combatants in the conflict ($M = .67$, $SE = .05$) than taking on another role (e.g., mediator, judge).

Children as additional parties. Secondly, a 2 (child) x 5 (additional role) repeated measures ANOVA was conducted to examine the role that children were more likely to take on when they were not the initial combatants in the conflict. The results failed to illustrate a significant interaction between the child and the additional role that they assumed, $F(4, 68) = 1.38$, *ns*; however, the analysis did reveal a main effect for the role that was assumed, $F(4, 68) = 27.21$, $p < .001$, $\eta^2 = .62$. Specifically, the children were most likely to take on the additional combatant role ($M = .54$, $SE = .06$) when they became involved as additional parties in polyadic conflicts. Means and standard deviations for the additional roles that family members assumed are presented in Table 6.

Partnerships in alliances. In regards to overall alliance partnerships by gender, the frequencies were fairly equal. In particular, male-female alliances (e.g., father supporting mother) occurred more often ($n = 54$), followed by male-male (e.g., father supporting son; $n = 41$), female-male (e.g., mother supporting son; $n = 38$), and female-female (mother supporting daughter; $n = 31$) alliances.

With respect to the research question regarding the typical members of alliances during polyadic family conflicts, all alliances that were identified were categorized into four types of alliance partnerships: (a) parent supporting parent, (b) parent supporting child, (c) child supporting parent, and (d) child supporting child. Using these categories, a

one-way repeated measure ANOVA was conducted to determine which of these partnerships occurred most often. The results revealed a significant main effect of partnership, $F(3, 87) = 5.13$, $p < .01$, $\eta^2 = .15$. Additional *post hoc* comparisons using the Bonferroni correction showed that alliances where the parent supported the child ($M = .45$, $SD = .35$) occurred significantly more often than partnerships where the child supported their parents ($M = .18$, $SD = .23$), and when children supported one another ($M = .16$, $SD = .27$). Although alliance partnerships between parents occurred most often after parent supporting child alliances, it was not significantly different from the other categories ($M = .21$, $SD = .28$).

Furthermore, to investigate whether allied family members supported the victim or the aggressor of the conflict, a 4 (family member) x 2 (support) repeated measures ANOVA test was performed. The results showed a significant interaction between the family members as allies and the combatant they supported in polyadic conflicts, $F(3, 12) = 6.35$, $p < .01$, $\eta^2 = .61$ (see Figure 2). In particular, allied support for the initiator or victim of the conflict came most often from fathers ($M = .56$, $SD = .16$), mothers ($M = .70$, $SD = .24$), and younger siblings ($M = .61$, $SD = .46$). Conversely, older siblings were the only family member who were more likely to support the other combatant of the conflict than the victim ($M = .93$, $SD = .15$) than fathers ($M = .44$, $SD = .16$), mothers ($M = .30$, $SD = .24$), and younger siblings ($M = .39$, $SD = .46$).

Associations between Alliances and Topics of Conflicts

To test the research question regarding whether there was an association between the formation of alliances and certain conflict types, a repeated measures ANOVA was conducted, in addition to *post hoc* tests using the Bonferroni correction. This analysis

used the proportioned scores of all topics of conflicts when alliances were formed through third or fourth parties. A significant main effect was observed for the conflict topics when alliances were formed, $F(2.51, 72.64) = 8.17$, $p < .001$, $\eta^2 = .22$, using the Greenhouse-Geisser correction to adjust for the violation of Mauchly's Test of Sphericity. Pairwise comparisons showed that conflicts regarding obnoxious behaviours ($M = .40$, $SD = .36$) would elicit an alliance most frequently, but were only significantly more likely to occur in comparison to conflicts about conceptual information and plans for play. This finding parallels the results for overall polyadic conflicts where obnoxious behaviours occurred significantly more often. Means and standard deviations for the topics of conflict when alliances were formed are presented in Table 7.

Associations between Alliances and Resolutions of Conflicts

To test the hypothesis that standoffs would be the most common resolution when alliances were formed during polyadic family conflicts, a repeated measures ANOVA was run along with additional *post hoc* tests using the Bonferroni correction. This test was performed using proportion scores of all resolutions of conflicts when alliances were formed among third and fourth parties. A significant main effect of resolution was found, $F(1.06, 30.85) = 98.77$, $p < .001$, $\eta^2 = .77$, using the Greenhouse-Geisser correction. Specifically, conflicts ended significantly more often with one side submitting ($M = .83$, $SD = .23$), rather than standing off ($M = .16$, $SD = .24$) or compromising ($M = .01$, $SD = .05$) when an alliance was formed during the conflict. Similar to the topics of conflict when alliances were formed, this finding is consistent with the previous results that found that overall, submissions occurred more often. Taking into account the pattern of

findings, there was no support for the hypothesis that alliances would be more likely to end in a standoff rather than a submission or compromise.

When examining whether alliances resulted in significantly more wins than losses, a one-sample *t*-test was conducted on the proportioned scores of when allied parties won or lost the conflict. The results of the test indicated that when initial combatants were involved in alliances, they were significantly more likely to win (M = .62, SD = .33) rather than lose (M = .38, SD = .33) the conflict, $t(29) = 2.04$, $p < .05$, r = .35. The means and standard deviations for the resolutions and outcomes of polyadic conflicts when alliances were formed are presented in Table 7.

Cooperative and Surrogate Alliances

Given the exploratory nature of separating alliances into different types of varying support, repeated measures ANOVA tests were conducted on the proportion scores of cooperative and surrogate alliances. In the previous analyses regarding alliances, these scores were combined for the purposes of examining alliances as a whole; however, for the following analyses, these subtypes were compared solely with one another.

Comparison of overall use. To determine which type of alliance was formed more often in polyadic family conflicts, a one-way repeated measures ANOVA was conducted on the proportion of each type. The results showed a main effect of alliance, $F(1, 29) = 6.42$, $p < .05$, $\eta^2 = .18$. Specifically, additional post hoc comparisons using the Bonferroni correction indicated that cooperative alliances (M = .66, SD = .35) were formed significantly more often than surrogate alliances (M = .34, SD = .35).

Comparison of use between allied partners. To compare cooperative and surrogate alliances, it was considered beneficial to examine their use by both parents and

children who were involved as allies in polyadic conflicts. To accomplish this, proportion scores were calculated using the total number of each type of alliance as the numerators, respectively, and dividing that by the total number of alliances, which served as the denominator.

A 3 (partnership: parent-parent, parent-child, child-child) x 2 (type of alliance) repeated measures ANOVA was run on the proportion scores described above. The results revealed a non-significant interaction between the type of dyad within the family and the type of alliance, $F(2, 26) = .03$, *ns*. However, additional repeated measures ANOVA tests were performed for the type of partnership that was most likely to form in cooperative and surrogate alliances. For cooperative alliances, a main effect of partnership was found, $F(2, 48) = 16.47$, $p < .001$, $\eta^2 = .41$. Regardless of who the initial fighter was in the conflict, parent-child cooperative alliances were more likely to be formed ($M = .66$, $SD = .33$) than parent-parent ($M = .21$, $SD = .28$) and child-child ($M = .13$, $SD = .24$) cooperative alliances in polyadic conflicts. For surrogate alliances, a main effect of partnership was also found, $F(1.53, 27.62) = 7.85$, $p < .01$, $\eta^2 = .30$, using the Greenhouse-Geisser correction to adjust for the violation of Mauchly's Test of Sphericity. Similar to cooperative alliances, parent-child surrogate alliances ($M = .62$, $SD = .41$) were formed significantly more often than child-child alliances ($M = .13$, $SD = 26$). Parent-parent surrogate alliances were not significantly different from parent-child or child-child surrogate alliances ($M = .25$, $SD = .30$).

Content Analysis of Cooperative and Surrogate Alliances

Based on the operationalized definitions of surrogate and cooperative alliances, the main difference between the two subtypes was how often the initial party contributed

to their side of the conflict with an ally present. The following section will compare the frequency of themes that are found in separate examples of cooperative and surrogate alliances. It should be noted that all names within the quotes used have been altered to protect the confidentiality of the participants. Furthermore, the findings presented in this section represent a preliminary view of the qualitative differences between cooperative and surrogate alliances, and requires further study and replication.

As previously mentioned, a cooperative alliance was operationalized as an alliance in which both the combatant and the ally not only verbally contributed equally in the conflict, but also shared the ramifications based on the outcomes. It is also important to acknowledge that although allies in a cooperative alliance contributed their resources to support their side, their role did not undermine the combatant's role within the conflict. Conversely, a surrogate alliance was defined as a type of alliance whereby the ally not only supported the combatant, but also used their resources to take over for the combatant. As such, the combatant was no longer actively involved in the conflict.

From these definitions, it became apparent that the frequency with which allies spoke and contributed their resources determined whether there was a cooperative or surrogate alliance. To begin to describe the qualitative differences between cooperative and surrogate alliances, all sequences of polyadic family conflicts where an alliance was formed were examined, and of these sequences, eight were chosen for a preliminary content analysis. These sequences were selected based on their differences in the topics of the conflicts, how many alliances were formed during these conflicts, and who were the allies within these conflicts. For example, one conflict saw two cooperative alliances form, whereas another saw one cooperative and one surrogate alliance. This was done not

only in order to attempt to provide a variety of examples to draw from, but also to give a preliminary look at how allies support an initial combatant, and what resources they used during these conflicts.

Based on a review of these eight sequences of conflicts where alliances were formed, it appeared that themes relating to family members' knowledge of each other and of the rules of the home were the most common resources that allies used to create these partisan relationships. There were five main resources that were identified: (a) rule enforcement, (b) control, (c) informational, (d) repetition, and (e) using induction. These themes were determined by looking for common keywords or keywords such as "stop" or "what did I say to you" that recurred throughout the eight sequences. These resources were initially identified separately by the author and a trained research assistant who assisted in verification. After this process of identification, the author and research assistant discussed common resources and ideas that occurred in the sample of transcripts and further refined them into the five types listed above. A detailed coding scheme is presented in Appendix C.

Comparison of verbal and nonverbal turns. As the operational definitions of cooperative and surrogate alliances suggest, the key difference between the two is in regards to how often the combatants speak versus how often the allies speak for them. Generally, for cooperative alliances, combatants contributed to their side of the conflict an average of 1.6 (range = 1 – 4) times when they were allied with someone. For the ally in a cooperative alliance, their contributions averaged 2.4 times during the conflict (range = 1 – 4). As a result, there appeared to be fair give and take between the combatant and the ally in a cooperative alliance. Conversely, combatants in a surrogate alliance

contributed an average of 1.0 times (range = 0 – 4), whereas their surrogate allies contributed an average of 6.2 times (range = 1-15) in the alliance. Based on the frequencies and the difference in how often the combatant and ally contributed, it appeared to be clear who was the one contributing the most in a surrogate alliance.

Resource 1: Rule enforcement. The first resource that emerged from the transcripts was one that appeared to be used among more family members than the other resources. In many alliances, allies referenced their knowledge, for example, for rules in a game or household rules, in their support for parties who violated them. For example, when the mother found the older and younger siblings using a flashlight that they were not allowed to use, the father referenced a house rule with the mother by reminding them, "They should (not) be playing with that anyways." Another example occurred when the mother found the younger child colouring on the older child's books, and to stop the younger from continuing, the mother's support of the older consisted of her reminding the child, "You're not supposed to write on Kathy's books." By using one's knowledge and references to rules perhaps this helped to serve as a reminder to something the initial combatants, and especially the aggressor, may have forgotten. In the second example, the older child could not stop their sibling from damaging their books, and with the help of their mother, the younger child was reminded that it was wrong to do that and they had violated the rules.

Resource 2: Control. The second resource was in relation to control, which included strategies such as using demands or commands, calling for one's attention, and expressing disapproval. These strategies emerged separately, but were then collapsed into the control resource because all of those who used this strategy required the immediate

attention or ceasing of a certain behaviour or action on the part of an aggressor. For demands and commands, allies often implied with a direct tone to the other combatants commands such as, "Give me your stick," and "Let her play with it Mary." By using potentially forceful directives and commands, allies may have used their social status within the family to provide such a request. In particular, parents were often the allies who used this resource. Similarly, calling for one's attention, namely the other combatant was another strategy used by allies. By calling the combatant's name, allies may have tried to achieve their goal by not saying anything perhaps because the child already knew what they did was wrong. For example, when the father entered a conflict between the younger sibling and the baby over ownership of a toy doll, the father immediately called for his child's attention, and used a tone of voice that was identified to be in support of the baby. The last strategy that was consistent with control resources was an ally's use of expressing overt disapproval against an initial combatant. For example, the father expressed his disapproval to the baby who was colouring on the older child's colouring book by saying, "Maggie, no. Mag, no." In this situation, the fathers' use of the child's name along with his disapproval of her action aided in the older child's attempt to get the baby to stop colouring on the book.

Resource 3: Informational. The third resource was identified as informational, which saw allies ask the combatant that they were not supporting questions about their goals and motives, perhaps with the intention of using it to their advantage. Some strategies that were identified as informational included: (a) asking sarcastic or condescending questions, and (b) requesting information. Asking sarcastic or condescending questions appeared to be in use mainly by parents who may not have been

looking for an answer, but used it to simply remind the child of what was wrong and right. For example, after the older sibling took the doll from the baby, the mother, who allied herself with the father and the baby, tried to get the older child to give the doll back. When the older child refused, the mother retorted, "Mary, what did I just say to you?" In this quote, it was also recorded that she was using a negative tone, and after this was said, the older child continued to refuse. Nevertheless, it appeared that while not always successful, asking questions was used as a method of trying to get the combatant to focus, listen, and pay attention to what was being said.

The second informational strategy was requesting information. Although having an ally request information from the other combatant may seem similar to information gathering, it appeared that the information requested was perhaps an attempt to have as much information as possible in order to be able to support the side. For example, during a conflict in which the older child stepped on the younger's foot, the mother appeared to be in support of the younger child, and when she approached the older, she asked, "What did Carl do to you? Why are you hurting him?" In this situation, the mother wanted to know why the older sibling did what he did and why it continued to go on. Based on this, it was apparent that mother wanted to know more about why the side she supported was transgressed upon, as well as possibly evaluate how much support was needed for the younger child, given that he was very upset.

Resource 4: Repetition. The fourth resource was the use of repetition by the ally, which in this case, was employed for emphasis or to overstate the importance of objects or actions. Similar to calling attention to a combatant, allies who used repetition employed this strategy to emphasize their dissatisfaction or disapproval of a given

behaviour or act. For example, in a conflict where the younger child was allied with the baby against the older sibling after the older tugged on the baby's leg, the younger repeated his mother's initial request to "leave him (baby) alone, mom said." Another example refers back to the baby who was colouring on the older sibling's colour book. In this conflict, the mother, as an ally to the older sibling, repeated her own commands, and attempted to remind the baby that the colouring book was not for her. When speaking to the sibling, the mother said, "No, Katie's book." This was repeated twice by the mother and was met with no response. Immediately after, the father employed the same strategy and called the baby's name three times; after the third try, the baby stopped.

Resource 5: Induction. The last resource that illustrated an ally's use of resources was the strategy of inductive discipline, which refers to inducing empathy-based guilt on the violator of the conflict (Krevans & Gibbs, 1996). This was used especially in cases where aggressive acts were committed by one of the initial combatants. One example occurred when the older sibling walked over their younger sibling's foot. After telling his mother he wanted to hurt his sibling, the mother replied, "Well I want to hurt you. Do you like how that sounds?" By using induction, allies attempted to use other-oriented reasoning to show the aggressor that their actions were wrong, thus losing face in the conflict where they may have thought that they were right.

Figure 1. Topics of Polyadic Family Conflicts by Use of Resolution Interaction

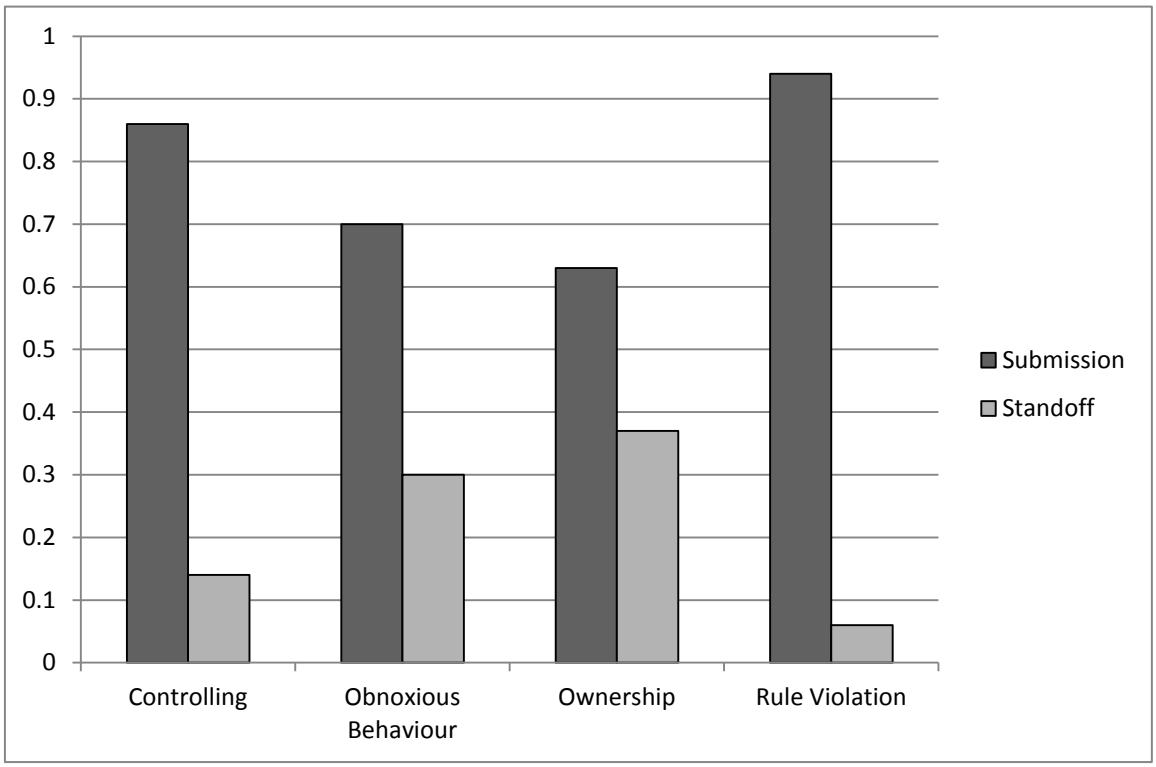

Figure 2. Allied Partnerships by Support Interaction in Polyadic Family Conflicts

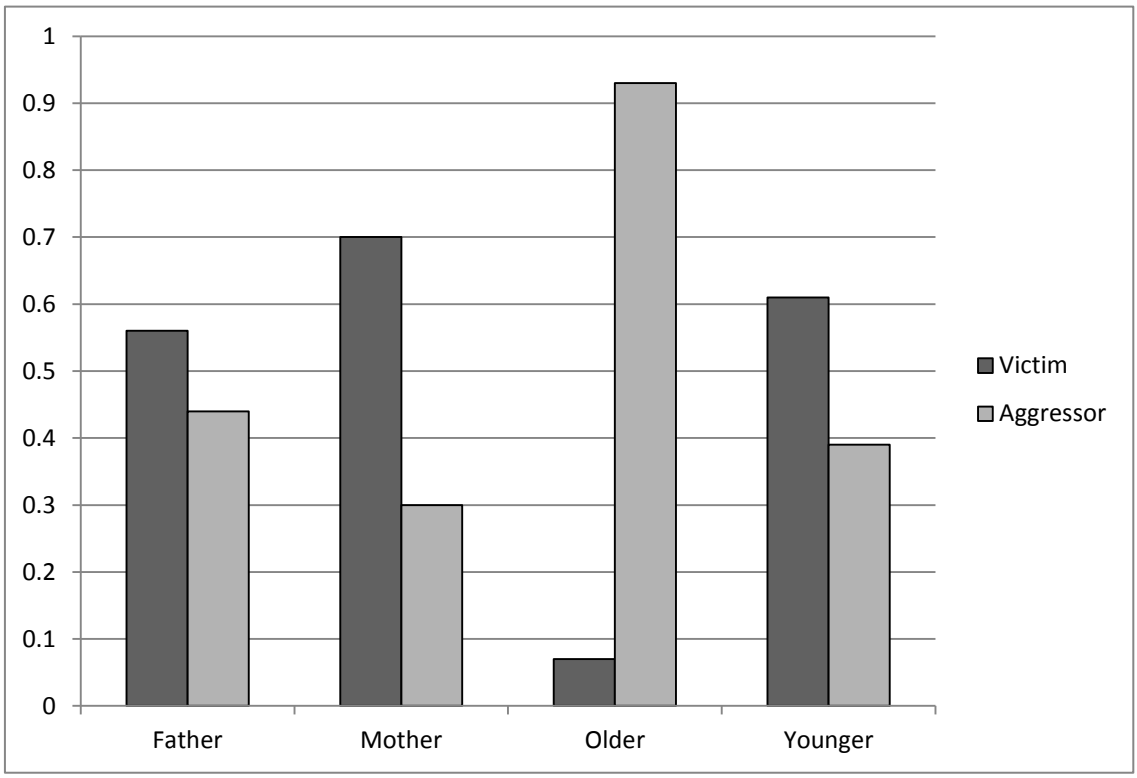

Table 3

Descriptive Statistics for Polyadic Family Conflict Topics, Resolutions, and Roles

	Frequency	Percent	*M* (*SD*)	Minimum	Maximum
Topic					
Obnoxious behaviour	113	37%	3.14 (3.10)	0	11
Ownership	56	18%	1.56 (2.37)	0	9
Controlling	60	20%	1.67 (2.12)	0	7
Rule violation	48	16%	1.33 (2.20)	0	12
Conceptual information	20	6%	.56 (1.61)	0	9
Plans for play	9	3%	.25 (.91)	0	5
Resolution					
Submission	207	68%	5.75 (5.76)	0	20
Standoff	85	28%	2.36 (2.52)	0	8
Compromise	14	4%	.39 (.55)	0	2
Additional Roles					
Alliance	164	44%	4.56 (5.12)	0	18
Additional	80	21%	2.22 (2.85)	0	10
Mediator	68	18%	1.89 (2.15)	0	9
Judge	48	13%	1.33 (1.79)	0	7
Distract	16	4%	.44 (0.97)	0	5

Note. Total number polyadic family conflicts = 306. The percent for the frequency of the Topic, Resolution, and Additional Roles = 100%. Frequencies reported for the Topic, Resolution, and Additional Roles are the overall total scores of their occurrence.

Table 4

Means and Standard Deviations of the Involvement of Family Members as Initial Fighters and Additional Parties in Polyadic Conflicts

	Initial Involvement		Tertiary Involvement	
	M	*SD*	*M*	*SD*
Parent				
Father	.22[a]	.26	.78[a]	.26
Mother	.22[b]	21	.78[b]	.21
Child				
Older Sibling	.63[c]	.28	.37[c]	.28
Younger Sibling	.59[d]	.26	.41[d]	.26

Note. Frequency of involvement was controlled. Means and standard deviations are based on the proportion scores of each family member's involvement as initial combatants and tertiary involvement in polyadic conflicts. Means that are in the same row are labeled with the same superscripts when *post hoc* Bonferonni tests revealed significant differences at $p < .001$ (e.g., "a" is significantly different from "a").

Table 5

Means and Standard Deviations of Additional Roles during Polyadic Family Conflicts

	M	*SD*
Additional Roles		
Alliance	.44[a]	.30
Mediator	.23[b]	.28
Additional Combatant	.19[ac]	.22
Judge	.11[a]	.19
Distractor	.03[abc]	.07

Note. Frequency of additional roles was controlled. Means and standard deviations are based on the proportion scores of the identification of each role in polyadic conflicts. Means that are in the same column are labeled with the same superscripts when *post hoc* Bonferonni tests revealed significant differences at $p < .001$ (e.g., "a" is significantly different from "a").

Table 6

Means and Standard Deviations of Additional Party Roles by Family Member

	Additional Party Role				
	Additional Combatant	Alliance	Distract	Judge	Mediator
	M (*SE*)	*M* (*SE*)	*M* (*SE*)	*M* (*SE*)	*M* (*SE*)
Parent	.01 (.01)[a]	.67 (.05)[a]	.06 (.05)[a]	.14 (.04)[a]	.12 (.03)[a]
Child	.54 (.06)[a]	.34 (.05)[b]	.07 (.03)[ab]	.00 (.00)[ab]	.05 (.01)[ab]

Note. Frequency of involvement was controlled. Means and standard deviations are based on the proportion scores of each family member's involvement as each of the Additional Party Roles in polyadic conflicts. Means that are in the same row are labeled with the same superscripts when *post hoc* Bonferonni tests revealed significant differences at $p < .01$ (e.g., "a" is significantly different from "a").

Table 7

Means and Standard Deviations of Topics, Resolutions, and Outcomes of Polyadic Conflicts when Alliances are Formed

	M	*SD*
Topic		
Obnoxious Behaviour	.40[a]	.36
Rule Violation	.23[b]	.35
Controlling Behaviour	.18[c]	.22
Ownership	.13[d]	.21
Conceptual Information	.05[ab]	.13
Plans for Play	.01[abcd]	.03
Resolution		
Submission	.83[a]	.23
Compromise	.01[ab]	.05
Standoff/Issue Dropped	.16[ab]	.24
Outcome		
Win	.62[a]	.33
Lose	.38[a]	.33

Note. Frequency of conflict was controlled. Means and standard deviations are based on the proportion scores of each Topic, Resolution, and Outcome of polyadic family conflicts. Means that are in the same column are labeled with the same superscripts when *post hoc* Bonferonni tests revealed significant differences at $p < .05$ (e.g., "a" is significantly different from "a").

Discussion

Overall, the purpose of this study was to examine the nature and dynamics of alliances in the context of polyadic family conflicts, as well as to investigate whether it was possible to distinguish empirically between two subtypes of alliances (i.e., cooperative and surrogate) in terms of how much support and partisanship was provided to combatants. In the following section, a discussion of the findings reported above will be presented in more detail as related to the research questions. In addition, limitations, directions for future research, and the implications of the findings from this study will be discussed.

Polyadic Family Conflict Issues

Before investigating the prevalence and role of alliances in polyadic family conflicts, it was beneficial to examine the topics and resolutions of polyadic family conflicts. In regards to the topics of polyadic conflicts, family members engaged in conflicts that were most often about obnoxious behaviours, such as being bothersome to another member, using aggression by hitting or making fun of another member, regardless of who initiated the conflict. This was followed by conflicts over controlling a person's actions, ownership, and rule violations. Although rule violations and ownership have been reported to be the most common type of conflict to occur among siblings (Ross et al., 1994), these conflicts did not occur as often in polyadic conflicts. This finding could reflect the fact that both parents and siblings could be initial combatants in polyadic conflicts and as a result, parents' and children's property were different and separate from one another, and therefore less likely to be an issue, as compared to the siblings who share numerous objects (e.g., toys) and common interests. Another explanation could be

that given the obviousness of obnoxious behaviours, namely behaviours related to aggression and social intrusion, it is possible that perhaps family members and parents in particular, reacted more adversely to these behaviours because of the immediate negative connotations that are associated with it. That is not to say that rule violations are not as severe or as negative as obnoxious behaviours, but because they are overt negative acts, obnoxious behaviours must be remedied as soon as possible to avoid potential future acts. However, given that previous literature (Vuchinich, 1987; Vuchinich et al., 1988) did not address this topic, future research should aim to replicate and extend this finding.

Lastly, polyadic family conflicts ended most often with one of the initial parties submitting to the other party, followed by standing off. As a result, it appeared that the submitting party stopped pursuing their goals, and thus lost the conflict. Again, this finding is contrary to Vuchinich's (1987) result where the reverse was found. Vuchinich (1987) postulated that when conflicts ended in a standoff, it was both parties' attempt to save face from the conflict and avoid having to lose the conflict. A possible explanation for the discrepant findings could possibly be attributed to methodological issues, which is an important factor, as discussed below. However, with respect to the present findings, another possibility is that given they were conflicts regarding inappropriate behaviour, the only way to end the conflicts was by submitting to the other party as a result of accepting their behaviour as inappropriate, thus losing their side of the conflict. Moreover, give that both children were rather young, these conflicts may have been best served by learning that the behaviours or actions that they committed violated both the societal and family-adopted conventions of what is acceptable and not acceptable. By doing so, these young family members learn from each not only about what is right and

wrong within the family and within society from one another, but also their parents do so through experience (Vygotsky, 1978). As a result, parents in particular possess the skills and knowledge to not only promote their children's positive socio-cognitive development, but also add to their understanding of the social world around them (Smetana, 1999; Turiel, 1983; Vygotsky, 1978). For younger children such as those observed in the present study, they may either not possess the necessary metacognitive skills or only have a rudimentary knowledge to understand their transgressions. This is in contrast to the children observed by Vuchinich (1987), where the ages ranged between 2- and 22-years, which encompasses children in the early, middle, adolescent, and emerging adult years. As a result, the older the child was, it may have been easier for them to try to save face and drop the issue because of their ability to understand their transgression perhaps more quickly than younger children.

Family Involvement in Polyadic Conflicts

In regards to the various family members' involvement in polyadic conflicts, it was hypothesized that aside from the children, mothers would have been the most common party to become an initiator or tertiary party to polyadic conflicts. This hypothesis was not supported, as fathers appeared to be just as involved as mothers in polyadic conflicts when they were present during the sessions. In particular, when initiating conflicts, the children were found to be involved more as the initiators of conflict than their parents.

This finding is contrary to previous literature (Vuchinich, 1987) that reported that siblings and parents were fairly even with respect to initiating conflicts, with siblings starting just over half of the conflicts. One argument that may account for the difference

in these findings could be a methodological issue. Unlike the dinner table context that was used by Vuchinich (1987), the polyadic conflicts in the present study occurred in a variety of settings, such as the family room, the basement, or in a child's room, which allowed for a variety of conflicts to occur and with different combinations of family members. In addition, families were asked to go about their daily routine during each of the sessions. As a result, this provided a range of opportunities for different family members to engage in polyadic conflicts over a variety of topics. Moreover, the fact that both the older and younger siblings initiated more conflicts especially with one another than did parents can be supported by previous literature that suggested that sibling relationship characteristics such as their long co-constructed histories and by the fact that they simply know one another very well (Dunn, 1983; Dunn & Munn, 1985; Howe et al., 2011). While it has been reported that sibling fights occur between six and eight times per hour (Dunn & Munn, 1985; Perlman & Ross, 1997), the average number of polyadic conflicts per family throughout the study was at least one per hour. Although this is starkly different as compared to the frequency of sibling conflict, it is possible that had the focus been on general family conflicts that do not necessarily include the siblings, there may have been more conflicts overall. However, it is also possible that family conflicts when at least three parties were present simply did not occur as often as dyadic sibling or parent-child conflicts.

Furthermore, with respect to parents entering into polyadic conflicts more as tertiary parties than as initiators of conflict, it is possible this is the case perhaps not only because of their social position and power within the family but also to ease or diffuse the intensity of the conflicts (Perlman & Ross, 1997; Ross et al., 1994). Referring to family

systems theory (Minuchin, 1985), parents may be creating psychological boundaries between themselves and their children, so that there was no initiating of conflicts between parents. Perhaps, when it came to issues that were important to parents or involved the family as a whole, then it could be possible that parents would initiate conflicts more often; however, such a speculation warrants further study. Another argument could be that parents are more socially and cognitively developed than their children, and thus instead of engaging in and initiating conflicts with their young children where it is likely they would win most conflicts, parents positioned themselves as tertiary parties to support their children. Moreover, when parents initiated conflicts, it was often in relation to a behaviour or action that one of the children committed; thus, when initiating conflicts with children, it may not occur simply because the issue may not be as important to them as it would be for children. Taken these findings into account, it can be speculated that parents may simply share different views of their roles in conflicts, where the parents may have deemed it more beneficial to end a conflict than initiate one with their children. However, another speculation could be that there was an element of social desirability from parents during the observations. Specifically, as compared to their children, they may have been more conscious of being observed by a researcher, whereas the children may have initially acknowledged the presence of a researcher but perhaps quickly forgot about it. As such, parents may not have been inclined to engage in conflicts with their children or even with one another because they may not have wanted to be seen negatively by the research observer.

Alliances in Polyadic Family Conflicts

With respect to alliances in polyadic family conflicts, it was hypothesized that of the five potential additional party roles (i.e., additional combatant, alliance, distractor, judge, mediator) alliances would occur most often. The data supported this hypothesis, with alliances occurring in fewer than half of the polyadic conflicts that were coded, followed by mediators and combatants. This is consistent with previous literature that found alliances occurred more often during polyadic family conflicts to continue conflicts than other roles (Vuchinich et al., 1988). Moreover, the results showed that parents specifically formed alliances more often as tertiary parties in the conflicts, rather than taking on the role of a mediator or even a judge. Interestingly, when either one of the siblings was involved as tertiary parties in polyadic conflict, rather than form an alliance with one of the initial combatants, they were more likely to become an additional combatant in the conflicts. As a result, what began as two opposing views within a certain conflict transformed into a conflict where three family members expressed their own side and fought to achieve their own goals. One possible explanation for this is that given that all of the polyadic conflicts had one of the children as an initial combatant, as well as the conflicts being about something one of the siblings did, it is possible that the children entered into the conflicts to express their own views about what happened or did not happen regardless of whether it involved them or not (Dunn & Munn, 1985; Ross et al., 1994). Given that siblings know one another and fight with one another so frequently, it is possible that even when parents are initiators of conflicts with one of their children, the other child may be present or even around and feel compelled to add to the conflict or present their point of view. In conflicts with other members of the family, younger

children employed self-oriented arguments during conflicts (Slomkowski & Dunn, 1992). Although the children were older in the present study, a similar argument can be made in that during conflicts between a parent and child, the other child may need to state their own case in order to be heard; whether their case is relevant to the current conflict or not remains to be seen.

Alliance partnerships. In relation to the research question about what types of common alliance partnerships occurred during polyadic family conflicts, it was apparent that parents who supported their children were the most common partnerships, as compared to children supporting their parents or each other, and interestingly, parents who supported one another. Although parent-parent partnerships occurred the second most frequently, it was not statistically significant from the other types of partnerships. Furthermore, parent-child alliances where a parent sided against another occurred very rarely. Again, this is consistent with Vuchinich and colleagues' (1988) work that also suggested that by siding with one another, the children were not being directly exposed to inconsistent parenting. Had parents consistently sided against one another significantly more often, it may have shown children that the parents differ in terms of their parenting and disciplining practices, and may be associated with future externalizing difficulties for the children themselves (Lengua, 2006). From a family systems perspective (Minuchin, 1985), parents' patterns and communicative interactions are crucial for children's learning. Specifically, if parents continually fought or sided against one another especially in front of one another, children may in turn develop an understanding that what their parents did was normal and accepted in society, when in actuality it was not. Moreover, in more extreme cases, if these behaviours and interaction patterns continued,

the chaos of maladaptive cyclical interactions and coercive cycles that formed would maintain and become normal in the family (Patterson, Dishion, & Bank, 1984); thus the family could lose the ability to function as an effective unit and as separate individuals in public. However, if parents consistently operated using the similar, if not the same, parenting techniques and disciplining strategies, Ihinger (1975) argued that children would begin to develop and understand the rules related to justice more effectively.

Associations with conflict topics. When investigating whether there was an association between the topics of polyadic family conflicts and the formation of alliances, the results were found to be consistent with the previous findings on the topics of conflicts overall. Namely, when conflicts were about obnoxious behaviours (e.g., social intrusion, aggression), alliances were likely to be formed. As with the previous findings, this was contrary to the literature that suggested that alliances were likely to be formed during conflicts regarding equality and rights (Ross et al., 1992). However, taking that into account, one speculation for the findings could be that when alliances were formed during conflicts about obnoxious behaviours and actions, it is possible that these behaviours were adverse enough to affect all members of the family, whereas conflicts regarding ownership may not have included all family members.

Especially in the case of obnoxious behaviour, there was inherently a good behaviour and bad behaviour. For example, in the case of an aggressive act, striking another family member was deemed unacceptable. In the end, it may not have mattered as much about who committed the act, insomuch as the fact that the act was committed and was unacceptable behaviour. In that case, it is possible that children may not have seen their negative actions or behaviours as immediately unacceptable, and even though

they may have been fighting with a parent, an extra family member may have been necessary to convince the child that they were wrong. As Ihinger (1975) argued, as children grow older, they begin to see the world not directly as right and wrong, or good and bad. As such, they begin to question and challenge ideas especially from their parents, and even though some behaviours or acts may fall on a continuum of severity, acts or behaviours such as hitting or swearing are deemed as wrong. Especially in alliances where the victim was transgressed or a parent was in conflict over an obnoxious action with a child, having a second or third family member to help convince the child may have been more effective than just one person on their own.

Associations with resolutions of conflicts. Concerning the research question about the association between the formation of alliances and their outcomes of polyadic conflicts, the findings yielded similar results, as compared to the overall resolutions of polyadic family conflicts. Specifically, when alliances were formed, the polyadic conflicts were more likely to end in a submission, rather than in a standoff or a compromise. Vuchinich and colleagues (1988) argued that standoffs occurred more often perhaps because daily family conflict may not be more important than maintaining positive family relationships both as a unit and with individual members. Especially in the contexts of alliances, a similar argument can be made to explain the findings in the present study. Although submissions occurred more often, one argument could be that children in early to middle childhood may not have developed the cognitive ability to 'save face' or even compromise. Given that a compromise is a constructive conflict resolution strategy that requires an understanding of both combatants' goals and intentions and working to achieve both goals (Howe et al., 2002; Smith & Ross, 2007), it

is understandable that children did not use this very often. Conversely, when a conflict ended in standoffs, it was a recognition made by either of the conflicting parties that they both had their own views and there was no convincing either of them. Similar to compromises, standoffs may have been seen as a developmentally inappropriate strategy to these children. As such, winning or losing may have been the only clear way for conflicting parties and children in particular, to learn.

In addition, considering that polyadic conflicts ended in more submissions when alliances were formed, the results also showed that those alliances were more likely to win conflicts. Taken into account, the notion of "strength in numbers" held true. As a result, it may have become apparent to the combatants that having someone on their side was more advantageous to them than not having one. Moreover, this finding is consistent with previous literature that found that forming an alliance during a conflict was more likely to result in a win for the side than not (Ross et al., 1992). In general, having more of one thing can be good, and in the context of family conflicts or conflicts overall, having another person or additional people support one's side can help to bring a different point of view to the conflict. This is especially true if the other party had not thought of that view, and for children in particular who may still exhibit self-oriented reasoning during conflicts (e.g., Slomkowski & Dunn, 1992), this could represent one of only a few moves that parents could take to help their children understand their transgressions.

Cooperative and Surrogate Alliances

One of the major purposes of this study was to conceptualize the construct of alliances into two types: Cooperative and surrogate. Although alliances have been

typologized with respect to why allies join sides, for example through band-wagoning and integrative spiraling (DeScioli & Kurzban, 2009), the resources that allies used while defending their side had not been investigated.

The preliminary content analysis findings revealed that the verbal turns in cooperative and surrogate alliances were different from one another. In cooperative alliances, the ally continued to allow the combatant to contribute along with them, whereas in surrogate alliances, the combatant rarely, if at all, had any opportunities to speak during the conflict. Given this information, it can be speculated that there is power transfer from the combatant to the ally, especially in surrogate alliances. Furthermore, the agentic role of combatants to draw in allies through means such as requests for assistance has not been investigated, and presents an interesting dynamic of alliance formations. Interestingly, cooperative alliances occurred more often than surrogate alliances, which could be a potentially positive aspect of family conflict for children's learning. Specifically, as children get older, their use of justifications and other-oriented reasoning increases (Slomkowski & Dunn, 1992; Tesla & Dunn, 1992); as such, when children engaged in cooperative alliances, they may have been attempting to use their skills in justifications and reasoning to explain their side of conflict in an effort to win.

Furthermore, the preliminary findings from the content analyses showed that there were five main resources that allies used with respect to supporting their side during polyadic conflicts. Namely, allies tended to use resources that involved: (a) controlling, (b) rule enforcement, (c) informational, (d) repetition, and (e) induction. Although these resources were used by certain allies, rule enforcement appeared to be the only resource that was accessible and useful for all allies, including children. The fact that children

were likely to use their knowledge and reference rules of the home is related to their developing knowledge of what is acceptable and not acceptable. Specifically, parents may have tried to emulate societal rules at home; one such example could be no hitting or any sort of physically aggressive act directed toward any family member. By doing so, it would have provided the children with knowledge that not only is hitting not allowed at home but also in public, which can be attributed to their constant vicarious learning through their parents and one another (Carpendale & Lewis, 2006; Smetana, 1999; Vygotsky, 1978).

Concerning the other resources (i.e., control, informational, induction, repetition) that allies had available to them, it is possible that their rarer use by children may be attributed to the complex understanding that they must possess before they are able to use these resources. For example, inductive discipline requires individuals to help transgressors see the perspective of their victim and to induce feelings of guilt and empathy toward the victim (Krevans & Gibbs, 1996). For children between 4- and 6-years of age, induction is quite possibly an extremely complex task for them to grasp. While children at this age may possess the ability to understand and express that their opinions and perspectives are different from others (Howe, Petrakos, & Rinaldi, 1998), they would still need to grasp an understanding of guilt and how to help someone to feel it. Previous literature has suggested that guilt is preceded by the development of empathy, thus representing a developmental change in emotional understanding (Baker, Baibazarova, Ktistaki, Shelton, & van Goozen, 2012; Kochanska, 1993). As such, given all that is required for employing induction as a strategy, it simply seems to be a much better fit for parents as allies than children.

With regards to informational, control, and repetition strategies, they appear to be simpler to use than the induction strategy; however, these strategies may inherently refer to the social hierarchy structure of the family. Based on this hierarchy, children, and older siblings especially, may not be aware of their hierarchical power over the younger sibling in the context of family conflicts. Specifically, when allies used any of the informational, control, or repetition strategies, there was an inherent power associated with it. For example, when parents used control and repetition as strategies to support the combatant, their tone and forcefulness with respect to their statements could have played a role in how the conflicts ended. In addition, it appeared to be effective when parents as allies used them against their children. For example, repeating a child's name three times to attempt to stop them from colouring on another child's book proved to be effective, given the potential sternness or forcefulness in the tone of voice. For children as allies, one speculation could be that they may be unaware that as allies, they too can possess similar power towards parties lower in the hierarchy. Thus, when they engaged as allies during polyadic conflicts, their only resource was what they knew about, and in this case, it was their knowledge of the rules.

Overall, the results from the present study provide an interesting view of the various resources that were available to allies during polyadic conflicts. However, it is important to recognize that the qualitative findings from the content analysis are only preliminary. As such, the present findings require further study and replication using all of the polyadic family conflicts that were identified in the present study.

Limitations

Although the data used for this study provided a rich description of family interactions in their naturalistic setting at home, there are a few limitations that should be raised. The first limitation is in relation to the size and demographics of the sample. Taking into consideration the amount of information provided by the families in this study, as well as the investment in time and resources by the researchers and the families, a sample size of 39 may be considered reasonable. However, the fact that some families did not engage in polyadic conflicts reduced this sample to 36, and this was further reduced to 30 when solely investigating alliances. Consequently, this may have reduced statistical power during the analyses. Moreover, the lack of demographic variability in participant selection should be noted, as the sample consisted of families of a Caucasian background, but who were representative of the local population. Given this lack of variability in addition to the size of the sample may limit the ability to generalize the findings to a variety of families from different cultures.

A second limitation is in relation to the types of conflicts that were observed during the sessions. As previously mentioned, the siblings were the primary focus of the original data collection, and when parents became involved as either initiators or tertiary parties of these conflicts, their entry was a result of one of their children's inappropriate behaviours or actions. As a result, the identified conflicts do not completely portray daily family conflicts (e.g., marital conflict, completing chores). Although some sequence types allowed for descriptions of general family conflicts, these descriptions were not as frequent or as descriptive as the other types of conflicts. Nevertheless, conflicts between and about siblings are extremely common especially in the younger ages (Dunn & Munn,

1985; Perlman & Ross, 1997), and so conflicts regarding children's inappropriate behaviours and actions could be considered as a common type of polyadic conflict in which all family members participated.

A final limitation that should be noted is in relation to the medium used to describe familial interactions during these sessions. Through researcher audio recordings and notes, a detailed transcript was created that described each family members' actions (i.e., verbal, non-verbal), and speech. Although very descriptive and rich, the transcripts rarely described factors such as tone of voice. When identifying conflict sequences, it was determined by the original authors which sequences in the transcripts were considered conflicts and other that were not. Upon reviewing the pre-identified sequences, it was sometimes difficult to agree with them, and although this happened very rarely, it would nevertheless be beneficial for future research to include audio and visual records of what transpired between family members during the sessions. By doing so, it would allow researchers to be more confident in determining conflicts between family members in addition to possibly separating them with respect to severity and intensity.

Future Directions

The results of the present study provide an overview of the dynamics of polyadic family conflicts and their use of alliances. This topic has not been widely researched, and despite the limitations described above, the results suggest that polyadic family interactions and conflicts, in addition to alliances, are an emerging field that warrants additional study.

First, significant findings were found with respect to cooperative alliances occurring more often than surrogate alliances. Given that the ages of the children were between 4- and 6-years, future research may investigate younger children to determine whether family members and parents in particular, engage in more surrogate alliances with their children than cooperative alliances. If true, it could identify developmental differences in alliances based on how much support is offered to family members during conflicts. One speculation could be that when children are younger, they may not be as able to defend or express themselves as effectively during conflict, and as such, parents may ally with the child and instead of cooperatively supporting them, they may possibly take over for them.

Secondly, although it was quantitatively difficult to distinguish between cooperative and surrogate alliances, the preliminary content analysis that compared the two types of alliances provided interesting results with respect to the resources used by allies in both types. For that reason, it would be beneficial to determine and examine in greater detail two major factors: (a) the specific resources that allies use when they are supporting a combatant in conflicts, and (b) how frequently these resources are used when allies engage in a cooperative or a surrogate alliance. By identifying these resources and their use in alliances, it may result in qualitatively distinguishing between cooperative and surrogate alliances with respect to how much support they offer combatants in a given conflict. This would result in adding to the current literature on family dynamics and alliances where future research could help to determine whether or not cooperative and surrogate alliances are adaptive and maladaptive for children's social and metacognitive development, for example. It could be postulated that having someone

who constantly fights in favour of one child may actually hinder the child's ability to resolve conflicts themselves, unless they are too young to have developed sophisticated language skills. Furthermore, it could also impede on their abilities to develop and master social and cognitive skills that would be required to use strategies such as saving face and compromising.

Lastly, when the ally resources are identified and clearly defined, it would be interesting to apply this typology and resources into other contexts and relationships. Previous literature (Ross et al., 1992; Strayer & Noel, 1986) had suggested that with friends, children's identified friendships with others did not predict how they became involved in conflicts and whether they were likely to form alliances. However, even though friendships did not predict these factors, friends did enter conflicts and take sides. Therefore, future research could be directed to children and their friends to determine whether this typology could generalize to different relationships. Since siblings are closer to one another based on history and interactions (Dunn, 1983), friends possess a voluntary and more reciprocal (i.e., equal interactional exchanges) type of relationship than siblings, and therefore it could be speculated that cooperative alliances would occur more often than surrogate alliances. Based on more refined and distinguished types of alliances, and also in conflicts where the parties may not be as familiar with one another, it would be another interesting avenue to investigate.

Implications

The findings from the current study highlight the conflicts that are likely to elicit polyadic family conflicts, how they end most often, and the role and use of alliances during these conflict interactions. For children in particular, their first lessons and

experiences in socialization occur within the family, and this begins very early on in their lives. Based on this, the findings from the current study adds to the existing body of literature on the family's impact and role of children's social and cognitive development through conflict interactions.

Based on the present study, the family relationship is a complex aspect that is important for children of a young age. In addition to conflicts between siblings, children can learn a great deal during conflicts with parents as well. During any given conflict, children begin to experience and understand that the social world around them is complex, and that is not entirely resolved in yes and no, or good and bad fashion. In family conflicts about obnoxious behaviours in particular, children begin to develop and understand that certain behaviours are not acceptable either in the home or society, and as such, losing a conflict may be interpreted as a win with respect to learning. Using this knowledge gained from both siblings and parents through conflicts, children would be better able to interact with other individuals in other types of relationships. Moreover, as children gain more experience and grow older, they would be better able to understand not only which issues remain good or bad and which issues fall on a continuum of right or wrong, but also the best strategies available to avoid serious confrontations not only with family members but also other social partners.

From the view of the parents, the information presented in this study can be extremely beneficial. It is especially important for parents to understand and acknowledge that children learn a great deal from their parents both verbally and non-verbally. As such, when in conflicts with children, parents should take into account their parenting views and practices so that they do not present an image of inconsistency

(Ihinger, 1975). By consistently supporting and allying with one another during family conflicts, it helps not only to reassure the parent of their goals in the conflict, but it also avoids developing maladaptive cyclical interactions that can contribute to poor familial functioning. Overall, parents should continue to understand and acknowledge the fluid and natural learning process that children go through in developing socially and cognitively. It is through consistent parenting and support for one another that children will grow up with the skills to think and consider other's opinions and goals, and learn to use the most effective means in dealing with conflicts with others.

Furthermore, it is also important for parents to reflect on and monitor their differential treatment practices. Parental differential treatment has been shown to occur under circumstances related to sensitivity and age (Dunn, Plomin, & Daniels, 1986; Plomin & Daniels, 1987). However, parental differential treatment can also contribute to chaos within the family household (e.g., lack of regular routines; Atzaba-Poria & Pike, 2008). As mentioned previously, it could be speculated that children who have parents who constantly form surrogate alliances with them during conflicts may not develop the skills necessary to be able to defend their points of view. Similarly, parents who consistently ally themselves with one child may also be hindering their children's development of conflict resolution and other-oriented reasoning skills, as well as showing favouritism. As such, in addition to children potentially developing maladaptive social and metacognitive skills, it could further create more social chaos and divide the family, thus disrupting the family dynamic and creating more conflict. Based on this, parents must take note of their conflict strategies and monitor their behaviour in family interactions. In particular, a parent's attention must be separated between the conflict and

who they are supporting, so as to acknowledge their child's contributions and points of view in conflicts, and create a trust between them.

Conclusion

Overall, the findings from the present study have both supported and not supported findings from previous studies that have examined alliances and polyadic family conflicts (Ross et al., 1994; Vuchinich, 1987; Vuchinich et al., 1988). Although some findings were found to be contrary, this study adds to the existing literature by including an investigation of the topics of conflicts in which families participate, as well as an examination of the common frequency of alliances in the context of family conflicts. Specifically, the results demonstrated quantitative and qualitative differences between cooperative and surrogate alliances with respect to the frequencies of use of resources by each type. Most importantly, this study has illuminated the important contributions of both parents and children in family conflicts, as well as highlighting the complex nature of family dynamics. Nevertheless, the family continues to be an important and unique context through which parents impart and children develop their understanding of their social environment.

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Appendix A

Polyadic Family Conflict Issues Coding Scheme

Polyadic Family Conflict Issues Coding Scheme
Concordia University; Updated July 2013 (By Ryan Persram)

Development based on:
DeHart (1999); Howe, Rinaldi, Jennings, & Petrakos (2002); Ross, Filyer, Lollis, Perlman, & Martin (1994); Shantz (1987); Vuchinich, Emery, & Cassidy (1988)

Definition of conflict: Conflict is the verbal or behavioral incompatibility in goals that is expressed when one person explicitly opposes another person's actions or statements (DeHart, 1999; Hay & Ross, 1982, Shantz, 1987, Vuchinich, 1987). It must involve mutual opposition. For example, a parent tells a child not to hit, that would be the initiation. Even though the parent has a legitimate right to reprimand a child, it is considered an opposition to the child's behavior that is being reprimanded. As long as the conflict is about the same topic, even though the context of conflict changes (e.g., topic is ownership and the issue is based on one child's possession of *different* objects through the conflict), the sequence would remain the same (see F259 lines 350-486).

Who Initiates: Who is opposing (Mother, Father, Older, Younger, or Baby)
For example, if a parent intervenes in the conflict ("is that nice?"), code the initiator and the child or both children that reject the intervention ("I'm not sure"). The initiator is the actor(s) who cause a conflict to start by opposing an action request or protesting etc.

Initial Fighters: What dyad (or triad) begins the conflict. This includes the initiator and the resistor(s). If there is a triadic initiation of conflict (three initial fighters), it does not have to all start on the same line. For instance, if both O and Y are jumping on the couch and mother yells at older first and on the next line yells at Y, the fighters would be all three participants (MOY).

Type of Initiation: What type of action/statement is used by the initiator of the conflict (can be physical or verbal).

Code	Description	Example
AR Action Request	Demanding an *initial* action from another person	"I want some coke." "Give it back."
PR Protest, Prohibit, Defiance	Protesting in a negative way (e.g., fussing, crying) in *reaction* to actions or verbalizations of the other person; stops/prohibits other from an action	"No, she can't go in my room." "Stop!" "No!" "That's it, I'm not taking it anymore"
REP Reprimand, Scold, Accusation	Accusations of cheating, tattle-tale	"I'm gonna tell Mom" Y: "No pooie," O (laughs), M (light spank to Y)
TT Teasing, Taunting	Teasing or taunting a family member	O wants hot chocolate hot but added milk and now it's cold. Then Y taunts O saying it's her fault she put cold milk in...conflict continues

Topic: The topic of the conflict.[1]

Code	Description	Example[2]
AP Access to Parent	Gaining access to participate with or use parent in activity	B: (Tries to pull Y off F's lap) F: Are you jealous (to B) B (Grabs at Y's knee)
CI Conceptual Information	Ideas or facts that are true and not based on opinion)	F: "Mike, look at me. I think you did cheat" O: "He did, he went like this" Y: "No I'm not"
CL Controlling, Directives	Topics involving bossing or giving orders; controlling an individual's behaviour	F: (tells Y to pull Lego apart) Y: "No!" O: "Yeah, pull it apart" Y: "No, no, no, no"
OB Obnoxious Behaviour	Provocative behaviour, social intrusiveness, destructive acts, threats, offensive (swearing), aggression	F: "Don't David, don't jump anymore, okay/" O: "Yes, I want to sit on you" F: "Somebody is going to get hurt again" M: (quietly) "No yakking or fighting"
OW Ownership	Valued resources/personal property/possessions (object/space)	M: "Santa Claus brought it for you for Christmas" O: "Mom, Santa Claus just gives it to one" M: "No, he gave this game to both of you"
PP Plans for Play	Disputes about the plan of action for pretense or general game play	Y: "Do that again" F: "No, the horse is too tired" Y: No, do that again" O: "I never even got a ride" Y: "Give her a ride"
PR Procedures	How to do something, how something should be completed, used or placed, who they play with	M: "What are we going to do? B: (Wanders, and intrudes on Y) M: Now look, we'll give B something to play with"
RV Rule Violations	Violation of social rules or rules in games See F052 (line 346) See F057 (lines 151-157)	F: "You need two balls" Y: "No, we need one ball" F: "If you don't want to play by the rules, then we won't play"

Notes
[1]Although topics may change over the course of the conflict, the first topic at the beginning of the conflict should be considered the primary topic to be coded.

[2]O = Older sibling; Y = Younger sibling; M = Mother; F = Father; B = Baby

Resolution: How the conflict ends. This is based on the initial argument.

Code	Description	Example[3]
CY Submission, Comply, Surrender (Loser)	One fighter gives into the other, agrees with opponents view.[1]	Y and O argue with F because they want to play a game and F refuses. F insists they pick their toys up and threatens to send them to bed. O and Y yield and begin picking up their toys.
CO Compromise, Negotiation (Win-Win)	Any party (either combatant or additional) suggesting an alternative that is agreeable between all sides, or each fighter gives in a little to accept a position that falls between their goals in the conflict.	O: "She can't be in the middle" F: "Why not" F: (Switches with Y to be in middle)
NO[2] No resolution, Standoff, Dissipates, No outcome	Combatants' or additional parties' use of: - Distraction (make a comment unrelated to the conflict in order for it to end. - Disengage/ignore (one fighter stops fighting	"Pass the potatoes" "Nice day today" O: "You just don't want me to have the marbles" F: "Watch this (hits marble)" O: (No response) O: They're not Sherry's (referring to something else) M: (No response)

Notes
[1]If an alliance was formed between an initial fighter and an additional family member, and the resolution is either a win or a loss, both parties will be identified as winners and losers.

[2]If a sequence has a coded action of NOR (i.e., no response) in the transcript, it is still possible that it is a submission (see F052, lines 338-345). In this example, the parties are arguing over someone babbling. Although the sequences ends with NOR, the babbling stops. As a result, the resolution is coded as a submission (CY) because the babbling has stopped.

[3]O = Older sibling; Y = Younger sibling; M = Mother; F = Father; B = Baby

Outcome: Whether the end of the conflict resulted either in a win, a loss, both, or no resolution.[1]

1. Win-Lose: The conflict ended in a submission, resulting in a winner and loser.[2]
2. Win-Win: The conflict ended in a compromise, resulting in both sides winning.[2]
3. No resolution: The conflict ended with no resolution/standoff, resulting in neither side winning or losing.

Notes

[1]In addition to identifying whether the conflict ended in a win or loss, specify who (i.e., M, F, O, Y, B) won and lost the conflicts.

[2]More than one person can be counted as a winner, especially in alliances. All individuals (including those in alliances) must be specified as a winner or loser. Example: Mother scolds Older and Younger siblings, and both comply. Here, the Mother wins, and both the Older and Younger siblings lose.

Appendix B

Additional Party Roles in Polyadic Family Conflicts

Additional Party Roles in Polyadic Family Conflicts
Concordia University; Updated July 2013 (By Ryan Persram)

Development based on:

Black & Baumgartner (1983); Ross, Filyer, Lollis, Perlman, & Martin (1994); Vuchinich, Emery, & Cassidy (1988)

Description

In order to be classified as a polyadic conflict sequence, there must be more than 2 parties participating in the conflict. As such, the parties that enter into conflicts can be categorized into one of 5 different roles. Every family member who participates in a conflict must be given an identifiable role.[1]

Role	Description	Example[2]
Additional Combatant	Additional party adds to the conflict, and brings their own view into the conflict. They do not: 1. Support either initial combatant 2. Attempt to resolve the conflict as a mediator or distractor	F: "Don't play so rough" (to O) Y: "Go after me Tif" (to O) F: "Or I'll come over and beat up on you" (to O) F: "Or I'll come and beat up on you" (to Y)
Distractor	Makes any statements that is irrelevant to the conflict in an attempt and success to change the topic or lead to a resolution	"Nice day today!"
Judge	Intervenes into conflict as someone who ends it by giving orders. They address the matter, deal with the issue, and make a decision on how the conflict should be settled. They also have the power to enforce their decision (Black & Baumgartner, 1983).	Y: "It's not fair because he knows where my base is and I don't know where his is" O: "Well he's not even playing with me" F: "That's enough (takes one of O's men), you can all have one man"
Mediator	Intervenes in conflict by providing information, making suggestions, reframing the issues or using related tactics in an attempt to help the combatants end the conflict amicably. Mediators: 1. Have no special power over either side in the conflict 2. Their objective is to aid in a resolution that helps both sides	B: (Screams for O's gum) F: "Is there two pieces in there?" M: "You can split it" O: Yeah, I think there are two in the pack" M: "Give Timothy a little piece of yours" O: (Gives piece of gum to B)

Alliance	Intervenes into a conflict and becomes an active participant in the ongoing conflict. They side for or against the combatant with whom they share a similar viewpoint of the conflict.[3] Alliances exploit the division in conflict to obtain influence they would not ordinarily have. Although alliances are support systems, the levels of support provided to combatants varies: 1. Surrogate alliances (S-Alliance) 2. Cooperative alliances (C-Alliance)	See below

Notes

[1]Every family member who verbally contributes within a polyadic conflict sequence should be assigned an additional party role

[2]O = Older sibling; Y = Younger sibling; M = Mother; F = Father; B = Baby

[3]The person that the alliance is formed with must be coded and included in the win/lose column.

Alliance Types

Surrogate Alliances (S-Alliance)

- Additional Parties who support a combatant by substituting themselves for the combatant. In other words, they do all of the fighting and speaking for the combatant they support.
- In cases where an additional party continues the conflict, the initial combatant either ceases or significantly reduces their contribution to the conflict (see F012 lines 73-82 for an example, detailed below).
- It is possible that combatants may support allies initially; however, if they the stop speaking in the conflict, the alliance becomes a surrogate alliance (see M013, lines 311-335 for an example).

Actor	*Target*	*Role*	*Allied to Whom*	*Conversation*[1] (F012, Lines, 73-82)
O	M	Combatant		Mom, I didn't get one (popsicle).
M	O	Combatant		You didn't get one?
O	M	Combatant		Christine ate a whole one.
M	O	Combatant		Why, were you bad?
F	O	Ally	M	Say "Yes, mother dear, I was."
O	F/M	Combatant		(Whines)
F	O	Ally	M	No, you weren't bad, you were good when you gave it to her.
O	F	Combatant		Why didn't…I put it on the counter, 'cause Maggie wanted, so Maggie could have some.
F	O	Ally	M	Well, so that's how Christine ate it.

Notes

[1] O = Older sibling; Y = Younger sibling; M = Mother; F = Father; B = Baby

Cooperative Alliances (C-Alliance)

- Additional Parties who support a combatant but also provide the combatants an opportunity to contribute to the conflict. In other words, an additional party can support an initial combatant (i.e., speak in support of them) but the initial combatant also contributes to the conflict in addition to the ally (see F052, lines 1407-1426 for an example)

Actor	*Target*	*Role*	*Allied to Whom*	*Conversation*[1] (F345, Lines 801-810)
Y	F	Combatant		I wasn't… (In response to not taking a correct shot with a marble)
F	Y	Combatant		Mark.
Y	F	Combatant		I went…
F	Y	Combatant		It doesn't matter, you threw your marble. It doesn't count. It's done.
O	Y	Ally	F	You lose your turn.
Y	FO	Combatant		(Goes to get marble. Y wants to take shot over)
F	Y	Combatant		It's done Mark.
O	Y	Ally	F	Lose your turn.
F	Y	Combatant		Well, if you hit it, it doesn't count Mark.
F	Y	Combatant		So, just so you know.

Notes

[1] O = Older sibling; Y = Younger sibling; M = Mother; F = Father; B = Baby

Appendix C

Ally Resources Coding Scheme

Ally Resources Coding Scheme
Concordia University; Updated July 2013 (By Ryan Persram)

The purpose of this coding scheme is to identify and describe the resources that allies use during polyadic family conflicts. These resources have not been identified in previous literature, thus emergent coding is required. It is important to recognize that this coding scheme will only provide a preliminary look at the resources allies use during conflicts.

There are 8 sequences that will be examined where alliances were formed. They were selected on the basis of who the allies were, as well as the different types of alliances occurred. The following sequences were examined:

1. F155 (lines 842 – 854)
    a. C-Alliance (F supports M)
    b. C-Alliance (B supports Y)
2. F052 (lines 1407 – 1425)
    a. C-Alliance (F supports B)
    b. C-Alliance (M supports F and B)
3. F015 (lines 1526 – 1534)
    a. S-Alliance (F supports O)
    b. S-Alliance (M supports F and O)
4. M026 (lines 228 – 277)
    a. S-Alliance (Y supports B)
    b. S-Alliance (M supports Y and B)
5. F153 (lines 666 – 669)
    a. S-Alliance (F supports B)
    b. C-Alliance (M supports F and B)
6. F262 (lines 562 – 571)
    a. C-Alliance (F supports M)
    b. S-Alliance (O supports Y)
7. F345 (lines 891 – 901)
    a. S-Alliance (F supports O)
8. F232 (lines 309 – 335)
    a. C-Alliance (M supports F)

Resources[1]

Definition: Resources are any tools or strategies that allies use to help defend an initial combatant during polyadic family conflicts.

How they are identified: These resources were initially identified by the author reading the transcripts. A trained research assistant then blindly coded the same transcripts. Verification consisted of the author and the research assistant discussing common ideas and resources that occurred in the sample of transcripts. Once there was agreement, the resources were refined into the five types of resources: (a) rule enforcement; (b) control; (c) informational; (d) repetition; (e) induction.

How they are coded: These resources are coded on every line, if they occur. The resources are also only coded when the alliance has begun. In other words, when the additional party makes a verbal statement in support of a combatant, the alliance begins, and the resource coding starts and continues until the end of the conflict.

Resources[2]:

1. Rule Enforcement
    a. References to knowledge/understanding of house rules, game rules
    b. See F052 (line 1530), M026 (line 264), F232 (line 327)
    c. Examples:
        i. "What's the rule about stepping on people?"
        ii. "You're not supposed to write on her books."
2. Control
    a. There are three types of control as a resource:
        i. Demands/Commands
            1. Using orders to stop the other combatant
            2. See F155 (line 850), F052 (line 1417), M026 (line 245)
            3. Examples:
                a. "You give me your stick."
                b. "Let her play with it now."
                c. "Don't touch him."
        ii. Calling for attention[3]
            1. Calling one's name (only once); stating the opposing combatant's name
            2. See F052 (line 1409, 1417), F015 (line 1528)
            3. Example:
                a. "Mariade!"
        iii. Expressing disapproval
            1. Expressing verbal disapproval or negativity toward actions or behaviours made by the opposing combatant
            2. See F015 (line 1528, 1532), M026 (line 270)
            3. Example:
                a. "No, Megan, no!"

3. Informational
    a. Asking serious questions to clarify or using sarcastic questions to support a combatant.
    b. There are two types of informational resources:
        i. Sarcastic/condescending questions
            1. Used to remind the other combatants about issues that are clearly right and wrong or to remind them of requests that were recently made in the conflict
            2. See F052 (line 1412)
            3. Example:
                a. "What did I just say to you? (referring to previously asking the child to stop)"
        ii. Requesting information
            1. Used for clarification or information gathering
            2. See M026 (line 253, 261)
            3. Example:
                a. "What did you (referring to other combatant) do to her?"
4. Repetition
    a. Repeating verbalizations (e.g., names) to emphasize or overstate importance of objects or ceasing actions.
    b. Similar to calling for attention, but when the name or the action is repeated, it is coded as repetition
    c. See F015 (line 1532, 1533), M026 (line 243)
    d. Examples:
        i. "Katie, Katie, Katie! (Father repeating)."
        ii. "Leave him alone (Younger repeating Mother)."
5. Induction
    a. Using inductive discipline (i.e., empathy-based guilt; Krevans & Gibbs, 1996)
    b. See F052 (line 1423), M026 (line 259) DFFF
    c. Example:
        i. "That's not very nice. Well, I want to hurt you. Do you like the way that sounds?"

Notes

[1]This is only preliminary, and requires further examination using all of the 306 identified polyadic family sequences.

[2] O = Older sibling; Y = Younger sibling; M = Mother; F = Father; B = Baby

[3]For the resource "Calling for attention," if the name of the opposing combatant is repeated on the same line, it is coded as "Repetition" and not "Calling for attention."