

## **Student Responses to RENEWAL Questions**

*The following apply only for renewal applications. Please consider these responses in making your assessment of the application.*

### **1. Please describe how successful you were in achieving the intended outcomes of and adhering to the plan/timeline of your original proposal.**

I was highly-successful in achieving the intended outcomes for my first UROP semester: in the first semester of funding for this project (Fall 2019), I completed or am on track to complete all tasks listed in my original application. These include development of my coding scheme, pre-publication of my hypotheses and analysis plan with the Open Science Foundation, training another research assistant on how to use my coding scheme, and beginning to assess how I will analyze the collected data to best evaluate my hypotheses. The final task from my original application, coding, will be completed by the end of this term. We are ahead of schedule, in fact, and will likely finish before Thanksgiving Break.

Additionally, I added a few tasks in Fall 2019 that go above and beyond my original application's commitment: I registered for the Undergraduate Research Symposium, and, at my mentors' suggestions, I applied to present my work at the National Conference for Undergraduate Research and at the biennial meeting of the Society for Research on Adolescence.

There were two meaningful changes to the project from what I originally proposed, but both involved taking on additional work to substantially improve the project. Firstly, we decided to only use two coders for the data rather than a larger group. This meant that I actually ended up doing more work on the project this semester than I originally proposed as I am now coding 100% of our data (the other coder will code 15% of the sample by Thanksgiving Break for reliability), and did not at all present an issue in reaching my 120 hour requirement.

The other change we made was adding another hypothesis before beginning coding: in addition to our two originally-proposed hypotheses (that mothers encouraged perspective-taking more frequently than peers did and that children were more likely to engage in perspective-taking with their mothers than with their peers), we also now predict that mothers' encouragement of perspective-taking will temporally precede children's engagement in perspective-taking throughout the flow of conversation.

### **2. Please describe how successful you think your relationship with your mentor was during your first semester of UROP.**

My relationships with both my official mentor, Dr. [REDACTED] and the other professor who is heavily involved with the project, Dr. [REDACTED] were very good throughout my first UROP semester and I have no doubt that they will continue to be excellent. Both of them were very available and responded to my questions quickly and helpfully. I have had contact with them every week of the project and we see each other in-person every other week during our lab meetings, at which time we also discuss how my project is going. I also feel comfortable and confident that if I needed to meet with them in-person more regularly I would be able to do so, but have felt that every other week is appropriate in supporting one of my project goals, which is to thoroughly own and manage my own project as I prepare for graduate school. Both mentors have still been invaluable assets throughout the process, though, and I expect they will continue to be in the spring.

**3. Please explain what you think the impact of an additional semester in UROP would be to your educational and career goals.**

An additional semester of UROP funding would provide me substantial benefit in two different realms. First and foremost, it will make it possible for me to produce a higher-quality thesis and research product than I otherwise would be able to be if I had to take more hours at work. This is particularly important going into the spring semester as I will likely have even more work than I do now, writing my thesis itself and preparing for potentially as many as three different poster presentations (and a minimum of one, at URS).

Also important is the benefit that receiving continued funding would have for my graduate school applications. I intend to apply to a number of highly-competitive Ph.D. programs in developmental psychology, and receiving an award for a second semester would bolster my applications and my research credentials.

## **UROP Proposal**

### **Title of Proposal**

Differences Between Mother and Peer Listeners in the Encouragement of Perspective-Taking

### **Problem/Topic of Research or Creative Work**

Existing literature has found that conflict resolution is important to the healthy development of children and that perspective-taking may assist children in reaching those resolutions. There is, however, relatively little research on the role of the listener in conversations about conflict, despite the possibility that listener behaviors may be crucial in encouraging and fostering perspective-taking skills in those conversations. This research, which also serves as the basis for my Honors Thesis, is coding pairs of transcribed conversations (N = 93 sets/186 conversations) to examine the differences between mothers' and peers' listening behaviors in response to conversations with middle school children about the children's conflicts. We predict that mothers will have encouraged perspective-taking more than peers will have and that the children will have been more likely to engage in perspective-taking when their mothers encouraged them to do so than when their peers did. If the research confirms our hypotheses, the results may suggest ways in which parents and other caregivers can improve perspective-taking in their children, understand and manage peer influences on their children, or better themselves as listeners to their children. Additionally, this study may indicate directions for future research on perspective-taking and listener behavior.

### **Relevant Background/Literature Review**

Throughout their development, children will experience a great deal of conflict with other people. Certain types of conflict provide "children with important insights about their imperfect grasp of others' perspectives, as well as others' imperfect grasp of their own," (Recchia, Wainryb, & Pasupathi, 2013, p. 1469). We will use Laursen and Hafen's definition of conflict: something that "entails disagreement, which is manifest in incompatible or opposing behaviors or views," (2010, p. 859).

Conflict resolution is, naturally, the process by which parties conclude a conflict that they are engaged in. Existing research provides mixed results on the strategies children and adolescents prefer to resolve conflict, although that difference may be in part due to variation in culture and social context (see Maruyama et al., 2015). Adams and Laursen found that there are three main strategies that Western adolescents use to resolve conflicts - power assertion, negotiation, and disengagement (2001, p. 100) - and that those strategies tend to be used in different types of conflicts (p. 104). While each conflict resolution strategy has its advantages and disadvantages, both power assertion and negotiation likely involve some degree of perspective-taking from the people in conflict since they demand engagement with another party.

Berk's definition of affective perspective-taking provides a useful starting point for defining the mechanism more broadly: "inferring how another feels by imagining [oneself] in that person's place," (2013, p. 417). It is not sufficient, however, to confine the process to only affective, emotional occurrences. Perspective-taking also relies on cognitive processes, such as theory of mind. Toddlers develop a simplistic version of that construct called a desire theory of mind (Berk, 2013, p. 452). By age four, children will move on to a belief-desire theory of mind (Berk, 2013, pp. 452-453), and by middle childhood, children will develop the capacity for recursive thought, which is an advancement in their theory of mind that enables them "to reason simultaneously about what two or more people are thinking," (Berk, 2013, p. 453). The cognitive component of perspective-taking is necessary for the emotional component to take place. As such, in this research we will use Davis' 1980 definition of perspective-taking: "a cognitive attempt to consider another's viewpoint," (as cited in Longmire & Harrison, 2018, p. 894).

Perspective-taking plays a critical role in conflict resolution. Accurate perspective-taking is necessary to make effective use of negotiation and compromise resolution strategies, because doing so "requires the coordination of perspectives and goals of the self and the other," (Joshi, 2008, p. 134). Additionally, perspective-taking may mediate the effect of avoidant attachment styles on the refusal to engage in productive conflict resolution (Corcoran & Mallinckrodt, 2000, p. 481), and may even "prevent dysfunctional conflict" and reduce anger in mother-adolescent relationships (Lundell, Grusec, McShane, & Davidov, 2008, p. 569).

It is not just between parties in conflict that conflict resolution takes place, though. Talking about conflict with others - be they family, friends, or someone else - is a common experience. Crucially, the experience of the speaker may depend heavily on how their listener or listeners react to what they have to say. Indeed, what the speaker is able to gain from the experience may be dependent on whether their listener engages in perspective-taking (Goldstein, Vezich, & Shapiro, 2014).

One key aspect of listener behavior within certain relationship contexts is scaffolding. Scaffolding, which is "the process by which an 'expert' partner provides help to a 'novice' partner, increasing or reducing the level of assistance according to the 'novice' partner's performance," (Mermelshstine, 2017, p. 241), is frequently used by parents to teach their child - the "novice partner," in this case - how to do some action or think about some situation. It can be an effective tool for guiding children towards productive ways of thinking about difficult situations (Pratt, Kerig, Cowan, & Cowan, 1988, p. 835), especially when deployed to help children understand situations that would be outside their grasp without help but are manageable with adult support. In this research, we are particularly interested in whether mothers and peers scaffold perspective-taking behavior, and the differences in how they scaffold when they do so.

## **Specific Activities to be Undertaken and Timeframe for Each Activity**

The data used in this study consists of conversation pairs between a speaker, or "target child," and another person. One of the conversations in the pair is with the target child's mother and the other conversation is with one of the target child's same-age friends. At the time of data collection, researchers obtained consent and assent per the lab's approved IRB application. No further IRB is needed for this project, as it is a re-coding and original analysis of existing data.

In the first semester of UROP funding for this project (Fall 2019), I completed or am on track to complete all tasks listed in my original application. These include development of my coding scheme, pre-publication of my hypotheses with the Open Science Foundation, training research assistants on how to use my coding scheme, and beginning to assess how I will analyze the collected data to best evaluate my hypotheses. The final task, coding, will be completed by the end of this term. We are ahead of schedule, in fact, and will likely finish before Thanksgiving Break. Additionally, I added a few tasks in Fall 2019 that go above and beyond my original application's commitment: I registered for the Undergraduate Research Symposium, and, at my mentors' suggestions, I applied to present my work at the National Conference for Undergraduate Research and at the biennial meeting of the Society for Research on Adolescence.

In Spring 2020, I plan to finish this work. Tasks for the renewal semester include data analysis, which I will spend 30 hours on and complete by the end of January; 40 hours of preparation for between one and three unique poster presentations by the deadline for each conference, depending on whether I am accepted to present at either or both of the non-University conferences for which I have applied (I intend to present at URS regardless of the status of those other conferences, and have already registered for a spot through OUR); and the drafting and completion of my thesis itself, on which I will spend 50 hours and complete by mid-March. Note that, for the latter two items, my time estimates are minimums, and it is likely that I will spend more time on either or both of those items, putting me well above the 120 semester hours for UROP.

## **Relationship of the Proposed Work to the Expertise of the Faculty Mentor**

Dr. [REDACTED] one of the two principal investigators of the Social Development Lab, will be my faculty mentor. Her knowledge set will be invaluable for this research, as she has conducted a great deal of research herself into perspective-taking and conflict resolution (e.g., Recchia, Wainryb, & Pasupathi, 2013; Pasupathi et al., 2015). Furthermore, she has already worked on similar issues alongside one of her former doctoral students, Dr. [REDACTED] (e.g., Weeks & Pasupathi, 2011). In my first UROP semester, Dr. [REDACTED] and I checked in weekly, and she has already been a great asset to me in this work so far. I have no doubt that she will continue to be in the Spring 2020 term. Dr. [REDACTED] the other principal investigator of the Social Development Lab, is also heavily-involved in the project.

## **Relationship of the Proposed Work to Student's Future Goals**

I hope to become a researcher myself, and believe that doing this research now, writing my Honors Thesis, and receiving UROP funding to do those things will all be valuable experiences that will help prepare me for graduate work as well as bolster my graduate school applications. I will apply for doctoral programs in developmental psychology, including programs at highly-competitive schools, and believe that receiving continued funding to work on this project will

bolster my application while also allowing me to dedicate more time to it and improve the final product.

## References

- Adams, R., & Laursen, B. (2001). The Organization and Dynamics of Adolescent Conflict with Parents and Friends. *Journal of Marriage and Family*, 63, 97-110. doi:10.1111/j.1741-3737.2001.00097.x
- Berk, L. (2013). *Child Development* (9th ed.). Indianapolis, IN: Pearson.
- Corcoran, K. O., & Mallinckrodt, B. (2000). Adult attachment, self-efficacy, perspective taking, and conflict resolution. *Journal of Counseling and Development*, 78(4), 473-483. doi:10.1002/j.1556-6676.2000.tb01931.x
- Goldstein, N. J., Vezich, S., & Shapiro, J. R. (2014). Perceived Perspective Taking: When Others Walk in Our Shoes. *Journal of Personality and Social Psychology*, 106(6), 941-960. doi:10.1037/a0036395
- Joshi, A. (2008). Conflict resolution between friends during middle childhood. *The Journal of Genetic Psychology: Research and Theory on Human Development*, 169(2), 133-148. doi:10.3200/GNTP.169.2.133-148
- Laursen, B., & Hafen, C. A. (2010). Future directions in the study of close relationships: Conflict is bad (Except when it's not). *Social Development*, 19(4), 858-872. doi:10.1111/j.1467-9507.2009.00546.x
- Longmire, N. H., & Harrison, D. A. (2018). Seeing Their Side Versus Feeling Their Pain: Differential Consequences of Perspective-Taking and Empathy at Work. *Journal of Applied Psychology*, 103(8), 894-915. doi:10.1037/ap10000307
- Lundell, L. J., Grusec, J. E., McShane, K. E., & Davidov, M. (2008). Mother-adolescent conflict: Adolescent goals, maternal perspective-taking, and conflict intensity. *Journal of Research on Adolescence*, 18(3), 555-571. doi:10.1111/j.1532-7795.2008.00571.x
- Maruyama, H., Ujiie, T., Takai, J., Takahama, Y., Sakagami, H., Shibayama, M., ... Moriizumi, S. (2015). Cultural Difference in Conflict Management Strategies of Children and Its Development: Comparing 3- and 5-Year-Olds Across China, Japan, and Korea. *Early Education and Development*, 26(8), 1210-1233. doi:10.1080/10409289.2015.1036344
- Mermelshtine, R. (2017). Parent-child learning interactions: A review of the literature on scaffolding. *British Journal of Educational Psychology*, 87, 241-254. doi:10.1111/bjep.12147

Pasupathi, M., Billitteri, J., Mansfield, C. D., Wainryb, C., Hanley, G. E., & Taheri, K. (2015). Regulating emotion and identity by narrating harm. *Journal of Research in Personality*, 58, 127-136. doi:10.1016/j.jrp.2015.07.003

Pratt, M. W., Kerig, P., Cowan, P. A., & Cowan, C. P. (1988). Mothers and Fathers Teaching 3-Year-Olds: Authoritative Parenting and Adult Scaffolding of Young Children's Learning. *Developmental Psychology*, 24(6), 832-839. doi:10.1037/0012-1649.24.6.832

Recchia, H., Wainryb, C., & Pasupathi, M. (2013). "Two for Flinching": Children's and Adolescents' Narrative Accounts of Harming Their Friends and Siblings. *Child Development*, 84(4), 1459-1474. doi:10.1111/cdev.12059

Weeks, T. L., & Pasupathi, M. (2011). Stability and Change Self-Integration for Negative Events: The Role of Listener Responsiveness and Elaboration. *Journal of Personality*, 79(3), 469-498. doi:10.1111/j.1467-6494.2011.00685.x