The Impact of Siblings on Adolescent Behavioral Autonomy

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Given that autonomy development is a core developmental task of adolescence (Collins, 1990), it is no wonder that researchers are drawn to investigate when it begins, how it comes about and who is involved in the process. The previous two papers have already given you two possibilities as to who may be involved, besides the adolescent, to influence this process; parents and friends. It is clear that these two relationships are very important in the lives of adolescents and would therefore impact what they want to and should have personal control over. Specifically, adolescents must develop autonomy from parents in order to become self-reliant adults. Thus, parent-child relationships must be transformed from the hierarchical nature of early and middle childhood relationships to a more egalitarian relationship in late adolescence and into adulthood. This transformation occurs over the course of many conflicts and renegotiations during early and middle adolescence as adolescents begin to assert authority over their lives. Also, according to Daddis (2004), close friends may influence one another in terms of what they choose to fight with their parents to have personal control over. However, another salient relationship has been missing from the previous literature on autonomy development; siblings. Since the vast majority of children in the United States grow up with siblings, and the sibling relationship is the longest relationship anyone may have over the course of the life span, it is an important relationship to investigate further in this context.

Research from a family systems perspective strives to investigate not only the interactions among individuals within a family, but also the interplay between several relationships present in the family (Cox & Paley, 1997; Minuchin, 1985). The current study begins from the concept that interactions between adolescents and parents do not occur within a vacuum. There are family contextual and relational factors that may influence the process of autonomy development. Specifically, prior knowledge, experience, or relationships may influence the process of negotiating the boundaries of legitimate parental authority. Parents may view the process differently after going through the experience with their first child (Whiteman, McHale, & Crouter, 2003). On the other hand, younger siblings may construct expectations regarding the content and timing of their own autonomy after interacting with and participating in the relationship between parents and their older siblings, as well as through their own relationship with their older siblings. Some support for this idea comes from research by Whiteman and colleagues (Whiteman & Buchanan, 2002; Whiteman et al., 2004), which has shown that younger siblings and parents learn from experiences with older siblings in their transition into adolescence. This can then arm them with knowledge on how to proceed in their own lives, or with the second child. Therefore, the present study has two aims: 1) to examine the impact of sibling birth order on behavioral autonomy, and 2) to examine the impact of sibling relationship quality on behavioral autonomy.

These aims were investigated through a multi-informant, multi-method study of 60 early adolescents along with one of their parents and one of their siblings. It was first hypothesized that later-born children in the family would desire and garner greater autonomy than first-born children in the family. In order to examine this hypothesis, the sample was split so that approximately half (n = 26) of the early adolescents were the first-born children in the family, and the other half (n = 34) of the early adolescents were later-born children (mostly second born). All of the target early adolescents were in the 7th grade at the time of the study and their mean age was 12.78 (.47) years. Almost all of the parents participating in the study were mothers (91.7%), with a mean age of 41.93 (4.85) years. All of the participating siblings were within 1-4 years of age of the early adolescent. This age range was restricted due to the fact that twins would be presumably going through the process of garnering autonomy at the same time, and that 5 or more years age spacing between siblings would make it difficult for younger siblings to participate in the interactions between parents and first-born early adolescents over autonomy issues due to their young age (e.g., if the first-born child is 12 years of age when these interactions begin, the younger sibling would be 7 years of age or younger). For the group of families with first-born early adolescents, their younger siblings had a mean age of 10.04 (2.6) years, while in the group of families with later-born early adolescents, their older siblings had a mean age of 15.37 (1.5) years. Sibling gender-compositions included 6 brother-brother, 6 sister-sister, and 14 mixed-sex dyads for the first-born 7th graders group, and 6 brother-brother, 14 sister-sister, and 14 mixed-sex dyads for the later-born 7th graders group. Finally, the sample was mostly White (94.9%), with only 1.7% (or one family) of each African American, Hispanic, Asian or Pacific Islander, and Other.

Due to the unknown nature of the impact of siblings on behavioral autonomy, the parent and both children participating in the study completed four different indices of behavioral autonomy. Ideal and Actual Family Decision-Making were assessed using the Parental Authority Index (Hasebe, Nucci, & Nucci, 2004). These scales are similar to the Family Decision-Making scale of Dornbusch et al. (1985) in that it asks respondents who makes the final decision over each of 30 issues on a 1 to 5 scale with 1 indicating that adolescents decide alone, 3 indicating it is decide jointly between the adolescent and parents, and 5 indicating that parents decide alone. For Ideal Decision-Making, respondents were asked who *should* make the decision over each issue and was assessed once by parents for the family as a whole and once by each sibling. For Actual Decision-Making, respondents were asked who *does* make the decision over each issue and was assessed twice by parents, once for each sibling, and once by each sibling.

Desires for future autonomy were assessed using the Timetables for Behavioral Autonomy (Feldman & Quatman, 1988) measure. This measure assesses at what age the respondent believes the adolescent should be able to do or decide each of 20 issues for themselves (from less than 12 years of age to greater than 20 years of age, which was a modification from the original version of the measure to include younger ages). Parents completed this measure once for each child and each sibling completed the measure from their own perspective. Finally, from the social domain perspective, an individual's personal domain is composed of things to which the individual sees as beyond the control of others. In the case of adolescents, this includes parental control. The domain sorting task (Daddis, 2004; Smetana & Asquith, 1994) assesses the breadth of the adolescent's personal domain by asking them to sort 50 actions (on cards) into one of 4 categories: always wrong regardless of whether or not there is a rule against it, wrong if you don't have permission to do it, wrong because it could hurt you, or not an issue of right or wrong; it is up to the individual. The final category represents the criterion definition of the personal domain, thus the greater the number of actions sorted into this final category, the broader the adolescent's personal domain. This task was completed by each of the siblings as well as by the parent (by asking them "in thinking about your children performing these acts, which category would you sort each action into).

Also, sibling pairs completed a measure of relationship quality as assessed by the trust and communication subscales of Armsden & Greenberg's (1987) Parents & Peers Attachment Inventory (PPAI). This scale was originally designed to assess relationship quality with mothers, fathers, friends and romantic partners. It was adapted in this study to also assess sibling relationship quality. These assessments were made as part of a larger data collection in which family members came into the lab to complete a variety of questionnaire measures online, as well as participate in card-sorting tasks, interviews and videotaped family interactions.

The mean levels of behavioral autonomy for 7th graders and their siblings as reported by themselves and their parents for all four indices are shown in Table 1. Visual inspection of the means shows that later-born 7th graders show earlier desires for future autonomy and greater ideal family decision-making than first-born 7th graders, however there is no difference in actual decision-making levels and opposite trend for # of items sorted as within the personal domain. Interestingly, parent reports of the same measures show that parents have later desires for future autonomy and less ideal decision-making for their later-born 7th graders than first-born 7th graders (and follow a similar pattern as 7th graders for actual family decision-making and number of issues sorted as personal).

In order to test the first hypothesis that early adolescents with older siblings would desire and garner greater behavioral autonomy than first-born early adolescents, a series of 2 (family type: 1st born 7th graders v. later born 7th graders) X 2 (reporter: parent v. child) repeated-measures ANOVAs were performed for the four different measures of the target 7th graders' behavioral autonomy. The main effects of family type and the interactions between family type and reporter were non-significant in all four analyses.

Therefore, the first hypothesis was not supported. However, for desired future autonomy, number of issues sorted as personal, and actual family decision-making there was a significant main effect of reporter [$F(1,58) = 70.14$, $p<.001$; $F(1,58) = 18.89$, $p<.001$; $F(1,51) = 29.52$, $p<.001$ respectively], such that adolescents had earlier timetables for desired future autonomy and a greater number of issues sorted as personal (broader personal domain) than parents believed should be the case. This finding is consistent with many previous findings by Smetana and colleagues (Smetana & Asquith, 1994; Smetana, 2000) that adolescents desire more autonomy than parents are willing to grant and are the ones responsible for pushing the process of garnering greater autonomy.

The second aim of the study was to investigate the role of sibling relationship quality on 7th graders' behavioral autonomy, both as a main effect and interactively with family type. To accomplish this aim four hierarchical regression analyses were performed for each of the four measures of target 7th graders' behavioral autonomy as the dependent variable. Parental education and sibling gender constellation (brother-brother, sister-sister or mixed) were entered at the first step as controls. The main effects of sibling relationship quality, which was a mean score of the two siblings' reports of their trust and communication with one another ($r = .55$, $p <.001$), and family type were entered at step two. The interaction of family type and sibling relationship quality was entered at the final step. Given that the interaction was not significant for any of the analyses, the final step was dropped and only the main effects were interpreted. For all 4 indices of behavioral autonomy (see Table 2), the main effect of sibling relationship quality was significant, such that the better or closer the sibling relationship, the lower the level of the early adolescent's behavioral autonomy (i.e., the older their timetable for future desired autonomy, the greater the amount of parental control in ideal and actual family decision-making, and the fewer the number of items sorted as personal). In other words, when 7th graders were closer to their siblings, they desired and garnered less behavioral autonomy. This result may show that when early adolescents are closer to their siblings they are still generally entrenched within the family unit and yet to branch out towards a more independent lifestyle. It is also possible that this effect is related to the relatively young age of the target early adolescents in this sample and that they may have yet to reach an age at which they want to branch out.

As can be seen in Table 3, in an attempt to see whether or not the sibling relationship quality main effect was the same for all types of issues, regressions were re-run for ideal decision-making, actual decision-making and number of issues sorted as personal for separate social domains (personal, conventional, prudential and multifaceted). These regression showed that there is no relationship between sibling relationship quality and autonomy over prudential (or those things potentially harmful to the self) issues for any of the 3 measures. Conventional (or those arbitrary rules based on societal standards) issues were only related for the number conventional issues sorted as within the personal domain. Sibling relationship quality was related to personal issues for the number of personal issues sorted as personal and ideal decision-making over personal issues, but not actual decision-making. Finally, multifaceted (or those issues which overlap between conventional and personal or prudential and personal domains) issues were related to sibling relationship quality for all 3 measures. This pattern appears to show that it is mostly those issues which are multifaceted, which have been found to produce the greatest amount of conflict between parents and adolescents in previous research (Smetana, 1989), or personal where sibling relationship quality has an influence on autonomy. Somewhat surprisingly, sibling relationship quality does not have an influence on autonomy over prudential issues, given previous findings that younger siblings of child-bearing and juvenile offending adolescents are more likely to get pregnant or get into behavioral trouble at an early age, than their similarly aged counter parts (East, 1996; East & Jacobson, 2001).

In an effort to better understand what may be going on within the dynamic between multiple children and parents' views of child autonomy development, the data were then examined in a different way, such that children's and parents' views of behavioral autonomy were compared for younger siblings versus older siblings within the family, regardless of the birth order placement of the 7th grader. As can be seen in Table 4, an interesting pattern of correlations can be observed from this perspective for Desired Future Autonomy and Number of Issues Sorted as Personal (there were very few significant correlations for Ideal and Actual Decision-Making). For desired future timetables of behavioral autonomy, older and younger siblings' reports were only marginally correlated ($r = .23$, $p<.10$). However, parents' reports of their timetables for their older child and older children's reports for themselves were correlated ($r = .40$, $p <.01$), but parents' reports of their timetables for their younger child and younger children's reports for themselves were not significantly correlated ($r = .12$, $p = ns$). Interestingly, parents' reports for their two children were highly correlated ($r = .65$, $p<.001$). Also, parent and child reports for both older and younger children were significantly different from one another [$t(58) = 7.28$, $p < .001$; $t(58) = 5.95$, $p < .001$ respectively] such that children had earlier timetables for themselves than parents. This pattern of results seems to suggest that while both older and younger children in the family want more autonomy sooner than their parents are willing to grant it, parents and their older children's views seem to be more in line with one another than parents and their younger children's views. It also appears that parents' have similar views of what is appropriate timing of greater autonomy for both children, but the younger children are less likely to concur with their parents' views.

For the breadth of the personal domain, older and younger siblings' views were mildly correlated (r = .31, p < .05), yet significantly different from one another [t(59) = -4.07, p < .001], such that older siblings had a broader personal domain than younger siblings did.   While parents' views and their older children's views were moderately correlated (r = .27, p < .05), parents' views and their younger children's views were not correlated (r = .03, p = *ns*). Also, the parents' views and their older children's views were significantly different [t(59) = -5.95, p < .001)], such that older children had a broader personal than parents thought they should have, and parents' views and their younger children's views were marginally different from one another [t(59) = -1.76, p < .10] in a similar fashion. While the t-tests here seem to suggest what would be expected to be normal, both children want more personal jurisdiction than parents are willing to grant, and older children have more personal freedom than younger children, the correlations point to the idea that older siblings' views are again more alike with their parents' than younger siblings' views.

Taken together these findings seem to suggest a couple of things. If parents' views for both children are so highly correlated and if parents' views of their older children and their older children's views are more often and more highly correlated than with their younger children, it would appear that parents have learned something about appropriate timing and content of a child's developing autonomy from their older children and are trying to apply that information to their younger children. However, it also appears that the younger children do not necessarily agree that the standards should be the same for them. As part of an exploratory interview on these topics performed during the larger data collection process, one 7th grade female with an older sister gave one possible explanation: "I think my sister is kind of a dork. She doesn't really want to do anything cool. And if she doesn't think our parents will let her do something, she just doesn't do it, or she asks once and, when they say no, she drops it. If I really want to do something, I just keep asking or trying to do it until they give in. It doesn't always work, but I got my ears pierced younger than she did and I got to go to the mall with my friends earlier than she did."

In general, these findings do seem to suggest that there are differences in how younger and older siblings within the same family construct their views of what should be up to them to control and decide. It also appears that parents' views are not as differentiated as their children's views. Future longitudinal studies in this area in which families are followed from the time that the first-born child is an early adolescent until the second-born child reaches the same age or beyond are necessary in teasing out the developmental and family processes involved in autonomy development. Such a design could assist in answering such questions as "Is it just that later-born children want more autonomy than first-born children, or do they actual receive more personal control as well?" and "How do parents' respond to the differing requests of their later-born children from their first-born children?" The present study offers a good first step in identifying that there are differences and can help identify what questions are necessary for future research in this area.

References

Armsden, G.C. & Greenberg, M.T. (1987). The Inventory of Parent and Peer Attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 16,* 427-454.

Collins, W.A. (1990). Parent-child relationships in the transition to adolescence: Continuity and change in interaction, affect, and cognition. In R. Montemayor & G.R. Adams (Eds), *From childhood to adolescence: A transitional period? Advances in adolescent development: An annual book series, Vol. 2.* (pp. 85-106). Thousand Oaks, CA: Sage Publications.

Cox, M.J. & Paley, B. (1997). Families as systems. *Annual Review of Psychology, 48,* 243-267.

Daddis, C. (2004). *Close Friendships and the Expanding Boundaries of the Personal Domain during Early and Middle Adolescence.* Unpublished doctoral dissertation, University of Rochester, Rochester, NY.

East, P.L. (1996). The younger sisters of childbearing adolescents: Their attitudes, expectations and behaviors. *Child Development, 67,* 267-282.

East, P. L and Jacobson, L.J. (2001). The younger siblings of teenage mothers: A follow-up of their pregnancy risk. *Developmental Psychology, 37,* 254-264.

Feldman, S.S. & Quatman, T. (1988). Factors influencing age expectations for adolescent autonomy: A study of early adolescents and parents. *Journal of Early Adolescence, 8,* 325-343.

Hasebe, Y., Nucci, L., & Nucci, M.S. (2004). Parental control of the personal domain and adolescent symptoms of psychopathology: A cross-national study in the United States and Japan. *Child Development, 75,* 815-828.

Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development, 56,* 289-302.

Smetana, J. G. (1989). Adolescents' and parents' reasoning about actual family conflict. *Child Development, 60,* 1052-1067.

Smetana, J. G. (2000). Middle-class African American adolescents' and parents' conceptions of parental authority and parenting practices: A longitudinal investigation. *Child Development, 71,* 1672-1686.

Smetana, J. G., & Asquith, P. (1994). Adolescents' and parents' conceptions of parental authority and adolescent autonomy. *Child Development, 65,* 1147-1162.

Whiteman, S.D., and Buchanan, C.M. (2002). Mothers' and children's expectations for adolescence: The impact of perceptions of an older sibling's experience. *Journal of Family Psychology, 16,* 157-171.

Whiteman, S.D., McHale, S.M., and Crouter, A.C. What Parents Learn From Experience: The First Child as a First Draft? *Journal of Marriage & Family*, *65*, 608-621.

Table 1:

Behavioral Autonomy Means by Reporter and Family Type.

Measure	Reporter	Mean (*SD*)	
		1st born 7th grader Family Type	Later born 7th grader Family Type
Desired Future Autonomy Timetables	Parent about 7th grader	3.18 (.49)	3.23 (.39)
	Parent about Sibling	3.24 (.48)	3.18 (.44)
	7th grader	2.73 (.48)	2.64 (.50)
	Sibling	2.83 (.63)	2.63 (.53)
Ideal Family Decision-Making	Parent	3.09 (.51)	3.05 (.54)
	7th grader	3.19 (.58)	3.24 (.76)
	Sibling	2.83 (.58)	3.42 (.63)
Actual Family Decision-Making	Parent about 7th grader	2.72 (.57)	2.67 (.43)
	Parent about Sibling	2.49 (.66)	3.09 (.50)
	7th grader	3.15 (.61)	3.14 (.72)
	Sibling	2.79 (.59)	3.22 (.77)
# of Issues Sorted as Within Personal Domain	Parent	10.04 (7.15)	9.41 (4.52)
	7th grader	14.38 (6.54)	13.76 (7.12)
	Sibling	9.19 (5.85)	18.47 (9.93)

Table 2:

Regressions of Behavioral Autonomy on Sibling Relationship Quality & Family Type.

	Desired Autonomy Timetables			Ideal Family Decision-Making			Actual Family Decision-Making			Breadth of Personal Domain		
	$F\Delta$	$R^2\Delta$	β	$F\Delta$	$R^2\Delta$	β	$F\Delta$	$R^2\Delta$	β	$F\Delta$	$R^2\Delta$	β
Step 1	1.50	.05		.06	.00		.16	.01		.24	.01	
Parental Education			-.17			-.06			-.15			.03
Sibling Sex Comp.			.13			-.04			-.04			-.08
Step 2	3.05	.10		3.70	.12		2.66	.10		4.57	.15	
Sibling Relationship			***.34****			***-.38*****			***-.34****			***-2.94*****
Family Type			-.08			.09			.08			1.52

Note. Beta's are for the final step of the model. * $p < .05$, ** $p < .01$

Table 3.

Regressions of Behavioral Autonomy on Sibling Relationship Quality & Family Type.

	Personal Issues			Conventional Issues			Prudential Issues			Multifaceted Issues		
	$F\Delta$	$R^2\Delta$	β	$F\Delta$	$R^2\Delta$	β	$F\Delta$	$R^2\Delta$	β	$F\Delta$	$R^2\Delta$	β
Ideal Dec. *Step 1*	2.63	.09		.74	.03		1.44	.05		.13	.01	
Parental Education			.19			-.19			-.20			-.00
Sibling Sex Comp.			.01			-.04			-.16			.00
Step 2	5.67	.16		.43	.02		.58	.02		3.93	.13	
Sibling Relationship			***-.44*****			-.13			-.15			***-.38*****
Family Type			.14			-.01			.09			.05
Actual Dec. *Step 1*	.31	.01		.23	.01		.84	.03		.07	.00	
Parental Education			-.11			-.15			-.13			-.12
Sibling Sex Comp.			.05			-.07			-.15			-.02
Step 2	1.80	.07		1.62	.06		.22	.01		3.50	.13	
Sibling Relationship			-.28^{+}			-.26^{+}			-.07			***-.38****
Family Type			.07			-.01			.09			.05
Sorting Task *Step 1*	.19	.01		2.14	.07		.06	.00		.08	.00	
Parental Education			-.15			.11			.03			.03
Sibling Sex Comp.			-.15			.11			-.08			-.10
Step 2	6.74	.20		3.90	.12		.69	.03		3.50	.12	
Sibling Relationship			***-.49*****			***-.38*****			-.14			***-.33****
Family Type			.10			.12			.13			.25

Note. Beta's are for the final step of the model. + p<.10, * p< .05, **p< .01.

Table 4.

Associations between family members' reports of desired autonomy timetables and breadth of the personal domain.

	Desired Autonomy Timetables	Breadth of Personal Domain
Older – Younger	.23^{+}	.31*
Parent – Older	.40**	.27*
Parent – Younger	.12	-.03
Parent (Older) – Parent (Younger)	.65***	[redacted]

Note. $^{+}$ *p* < .10, * *p* < .05, ** p < .01, *** *p* < .001.