Sibling Relationships, Birth Status, and Personality:

A Qualitative Study of Asian American and European American College Students

By

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Abstract

This qualitative study explored East Asian and European American/Caucasian college students' perspectives of sibling relationships and birth status in relation to achievement drive, self-confidence, responsibility, family communication, and social support. Based upon previous findings on birth status and East Asian cultural values which heavily emphasize family hierarchy, East Asians were expected to show more distinct birth status patterns than Europeans. A total of 77 university students were interviewed by the principal investigator, and 48 interviews were randomly selected for qualitative analysis. Results showed that East Asians were more likely than Europeans to view their ethnicity as a factor that affected personality and family variables. Although the ethnic groups were similar in the levels of self-reported achievement drive, self-confidence, responsibility, family communication, and social support, more East Asians than Europeans perceived their ethnicity as influencing these variables. Birth status patterns of the two groups were generally similar, although they differed in relation to sense of responsibility for sibling(s) and parents. The limitations and contributions of the current study are discussed.

Keywords: siblings, only-children, birth order, Asian American, qualitative, personality, family

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According to the U.S. Census data collected in 2004, almost 80 percent of children under the age of 18 lived with their biological parents and one or more siblings. Because it is the case that most people spend a substantial amount of time in their life living and/or in contact with siblings, sibling relationships can play an important role in one's development. For this reason, sibling relationships have been a popular research interest and there are multiple studies that explored the effects of siblings, birth order, and gender differences of siblings on individuals and families.

Sibling and Birth Order Research

Studies on sibling relationships have been focusing on different personality and family variables, depending on the developmental stage of participants. For example, studies that involve infants and young children tend to focus on how transition to siblinghood after the birth of their younger sibling(s) and sibling relationships affect variables like attachment, emotion regulation, and temperament (Brody, Stoneman, & Burke, 1987; Teti & Ablard, 1989; Volling, 2001; Volling, McElwain, & Miller, 2002). Meanwhile, sibling studies that involve older participants such as adolescents and young adults have focused on variables that are more applicable to older participants, such as achievement, social support, and communication (Avioli, 1989; Riggio, 2000; Smith, 1993; Spitze & Trent 2006). One of the most important contributions that research on sibling and birth order characteristics have made is the discovery of different mechanisms through which sibling relationships can influence one's personality and relationships. One of these mechanisms is "resource dilution," in which the amount of available resources is negatively correlated with the number of siblings. This suggests that only-children

have the largest amount of resources, ranging from financial resources to undivided attention of their parents, which benefit them, especially in educational outcomes and developing social skills (Blake, 1989; Downey & Condron, 2004; Falbo & Polit, 1986). Another mechanism is called "sibling as resources," which suggests that siblings are an important source of social learning and interactions. As opposed to the "resource dilution" model, the "sibling as resources" model indicates that only-children have less resource to draw on when developing emotional regulation and social skills (Blake, 1989; Downey et al., 2004; Falbo et al., 1986). The last mechanism is called "only child uniqueness," which suggests that experiences of only-children are unlike those of any other birth order positions. The data collected by Falbo et al. (1986) showed that only-children prefer and master skills that are solitary in nature, but otherwise, developmental outcomes of only-children were found to be indistinguishable from first-borns and children from small families (Falbo et al., 1986). The fact that these theories predict three different outcomes of sibling status suggests that further research into its influence one's personality and relationship is much needed for a better understanding of sibling relationships. Recent studies have attempted to investigate the impact of sibling relationships in more specific domains, such as effects on parent-child relationships, achievement motivation, social behaviors, and personality traits.

A research study done by Trent and Spitze (2011) compared the social behavior of adults who grew up with and without siblings. The study was conducted with 11,149 respondents of the first wave of the National Survey of Families and Households (NSFH), which was composed of participants who identified themselves as White (73.1%), Black (18.0%), Hispanic (7.5%), or "other ethnic group" (1.4%). Respondents were asked to indicate in a survey with whom they socialized, how often they participated in particular types of social events, and in what types of organizations they belonged to. The results indicated that birth status was not related to the

frequency of their interactions with neighbors, coworkers, or friends who are not neighbors or to the types of activities they participated in or the organizations they belonged to. However, birth status was related to contacts with family members. Specifically, respondents with siblings saw their immediate and extended relatives (include parents) more often than only-children. The findings also showed a significant negative interaction between adult only-child status and the frequency of social activities, but this decreased with age. In an additional study on birth order and family size by Sputa and Paulson (1995), 195 ninth-grade boys and girls and their parents from urban, suburban, and rural communities in the southeast and the Midwest were asked to complete questionnaires mailed to their homes or distributed at school to take home in order to study parents' and children's perceived parenting styles and level of involvement, as well as children's academic achievement. The results showed that while self-reported parenting styles and the level of involvement did not differ significantly across sizes of the family, adolescents from moderate-sized families and second-borns were more likely to perceive their mothers as more demanding, responsive, and involved in school work than those from small or large families and as opposed to first- or third-borns. Adolescents from moderate-sized families had higher GPA's than those from either small or large families. Another significant association between birth order and academic achievement was that third-borns had significantly lower GPA's than either first- or second-borns. Although higher perceived maternal involvement by second-borns suggests a possible explanation for their higher academic achievement than third-borns, controlling for parenting styles still resulted in the GPA differences; differing parenting styles alone could not serve as an explanation for differing academic achievement. The paper concluded that further exploration in other variables, such as teachers' influences, is needed to fully understand how achievement is affected by birth order and family-size differences.

Another study done by Polit and Falbo (1987) attempted to study different personality trait patterns of only-children in comparison to children with siblings. The study was conducted by preparing over 500 published and unpublished studies for a meta-analysis. These studies involved personality and family configuration variables, such as achievement motivation, character, personal control, personal adjustment, sociability, and relations with parents. The results from 17 meta-analyses indicated that significant differences across birth orders occurred in relation to achievement motivation, character, and personal adjustment. Of the domains of motivation, personal control, autonomy, and sociability, achievement motivation was found to be persistently higher in only-children of all ages than non-only-children. These patterns, however, varied heavily across age groups; for example, a higher level of sociability was only found in only-children of college ages. The findings also suggested that other factors, such as racial background and socioeconomic status, seemed to affect these patterns, but the sample size was not sufficient enough to make conclusive claims.

Comparing personality traits and relationship patterns of only-children versus those with siblings provides important insights into the effects of the presence of siblings. However, studies that compare people with siblings and those without siblings provide limited insight into complex interactions between birth order among people with siblings and various family and social factors. A study done by Van Volkom, Machiz, and Reich (2011) investigated the effects of the gender, marital status of parents, birth order, age spacing, and whether participants lived with their sibling(s) in the same household or not, on the sibling relationships of 126 college students. The results from subjects' questionnaires suggested that women were more likely than men to believe they would be friends with their siblings if they were not related. No significant difference in general assessments of the sibling relationship was found between siblings who

lived together and those who lived apart, or among the perceptions of the youngest, middle, and older children towards their siblings who were closest in age. Siblings who had married parents were more likely to turn to their sibling(s) during difficult times than those with divorced parents. In general, these differences were most or only present among siblings who had the lowest age spacing. Participants did not display the observed patterns with siblings who were farther in age spacing than the one that was closest to them. While intriguing, the results also reflected some limitations, one of which was the lack of ethnic diversity.

Asian American Cultural Influences

The previously described studies have provided insights into sibling relationships and played an important role in addressing previous misconceptions about certain birth status, such as the general social perception that a lack of siblings will necessarily have detrimental impact on a child's social development (Blake, 1981). At the same time, the vast majority of these studies fail to consider ethnocultural differences that might also play an important role in shaping the development of those only-child and sibling experiences. In one study done by Kureishi and Wakabayashi (2010), researchers found that Japanese children of higher birth orders tended to live with or closer to their parents than those of lower birth orders do, with one exception; if a first-born child was a female and she had a younger brother, she located farther away from her parents than her younger brother even though she was the first child. This pattern was found to be the reverse of a similar study done with a German population, and the difference was attributed to the fact that the Japanese culture expects the first children to have a strong reciprocal relationship with their parents by providing financial and physical support for their elderly parents while receiving childcare from them. This finding serves as a good example of how birth order affects parent-child relationships in the adult population, but the sample did not

involve only-children, and it is not clear how results from Japanese people in Asia would generalize to East Asians living in the U.S.

Although evidence that directly supports ethnocultural influences on only-children and sibling relationships within the U.S. populations is largely missing, many studies on people from different cultural backgrounds suggest that they display different familial values and structures, which are possible sources of discrepancy in birth order effects across differing ethnicities. Some of this research suggest that East Asians are especially different from European Americans in that the former group places a higher value in family hierarchy. A research study was conducted by Sung (2010) with 20 mothers and 20 older adolescents between the ages of 16 and 20 years, using interviews and the Bar On Emotional Quotient Inventory to investigate the relationship between East Asian cultural values and parenting practices. This study revealed that the themes of hierarchy in family order, sibling relationships, lack of emotional expression, mother's burden, saving face, discipline methods and priorities often emerged in the interviews. The study was limited in that it only involved Chinese and Korean Americans, but they consistently displayed a strong hierarchical, male dominant form of discipline. Another study by Parker and Bergmark (2005), found that although levels of traditional filial piety (a value that is often more prevalent in East Asian families), is being "reformulated and re-considered" and declining as a function of changes in population dynamics and modernization, the value of filial piety is still much more often reflected in East Asian American families than in European American families.

Many other studies have described ethnocultural characteristics of East Asian families in more specific domains. For example, Lee and Liu (2001) investigated the family conflict among Asian, Hispanic, and European American families. The results showed that Asian Americans were more likely to report intergenerational family conflict than Hispanic or European

Americans, who showed no significant difference with each other. For Asian Americans, family conflict was significantly correlated with psychological distress and indirect coping, such as self-distraction, denial, alcohol and substance use, behavioral disengagement, and venting of emotions.

Fuligni (2007) investigated family obligation and the academic motivation of adolescents from Asian American, Latin American, and European American backgrounds. In general, the results from this longitudinal study conducted with a thousand adolescents from immigrant and native-born families in the United States showed that adolescents from the two ethnic minority groups who had a higher sense of family obligation also placed more importance on being successful in school and going onto college. This may be due to the belief in the importance of education as a source of family support for the future. As reported previously (Fuligni, Lam, & Tseng, 1999), adolescents from Asian and Latin American families endorsed all three aspects of family obligations, such as current assistance, family respect, and supporting the family in the future, more strongly than did the youths from European backgrounds.

Tseng and Fuligni (2000) also examined differences in the quality of relationships between immigrant parents and their adolescent children as a function of the languages they spoke with one another. The ethnic groups included East Asian, Filipino, and Latin American. The results indicated that adolescents who spoke in different languages with their mothers and fathers reported less cohesion and discussion with one another. This suggests that children in East Asian American families may experience differences in their comfort level and frequency of interaction with their siblings who share proficiency in English versus their parents for whom English is not their primary language.

Although none of the above studies explicitly explore how these ethnic differences influence sibling relationships, the results of these studies on family dynamics suggest that the ethnocultural factors will certainly play a role in shaping sibling relationships of those from different cultural backgrounds. Of all ethnicities, studies that focus on East Asians are most scarce, despite the results showing that there were many distinct differences between East Asians and European Americans, especially in areas of family communication, conflicts, daily interactions, sense of obligation, and own academic motivation. In addition, most studies that investigate aspects of family dynamics include adolescent-aged participants; studying college students might provide additional insight into how the transition from high school to college affects them, as suggested by Fuligni and Pedersen (2002), especially birth status effects and sibling relationships.

The current interview study with college students served as an important beginning point to exploring the missing connection between birth order, siblings, and Asian ethnicity. Specifically, it focused on perceptions of the self and family relationships of East Asian only-children and siblings and the degree to which those perceptions differed from those of their European/Caucasian American peers. The qualitative interview method used here was considered a useful beginning point in for identifying descriptive information and comparisons. Based on the previously reviewed research, the following patterns were expected:

1. As suggested by Polit et al. (1987), only-children are expected to report a stronger sense of academic achievement drive and a higher level of self-confidence than participants with siblings.
2. Given findings that Japanese first-borns tend to live with or closer to their parents more often than their younger siblings (Kureishi et al., 2010), East Asian first-borns are

expected to express a higher sense of family responsibility than East Asian only-children or later born. Europeans are not expected to show the same pattern.

3. Given the parent-child language barriers for East Asian participants, when compared to European American/Caucasian participants, East Asian participants will be more likely to seek social support from siblings/friends than from their parents, and they will have a greater discrepancy between the amount of social support that they seek from their parents versus their siblings/friends (Tseng et al., 2000).
4. Similarly, the discrepancy between the reported comfort level and frequency of communication between parents versus siblings and friends/non-family members will be higher in the East Asian sample.
5. As suggested by Trent et al. (2011), only-children will show a less number of instances of relying on others for support around negative and positive life events than siblings.

Method

Participants

A total of 77 college students (38 males and 39 females; 32 East Asian/East Asian Americans (15 males, 17 females) and 45 European/Caucasian Americans (21 males, 20 females)) from a large Midwestern university took part in the study. Fifty seven participated through the subject pool for an Introductory Psychology course. In addition, given the low percentage of East Asian American students within the subject pool, additional participants were recruited from East Asian American student organizations and through posted advertisements. Twenty students who participated independently for monetary compensation were compensated with $10 in cash upon completion, while the remaining participants who participated through the subject pool were granted a one-hour credit for the PSYCH 111 course assignment. Participants

of both genders were eligible to participate, but only those who identified themselves as either East Asian/East Asian American or European/Caucasian or European/Caucasian American were eligible. Participants who had non-biological parents or siblings (ie. Step-parents, half- or step-siblings) or none at all were also eligible, but participants who had no living parent were excluded from analysis. For the present analyses, 48 interviews (24 for East Asian and 24 for European/Caucasian; 24 males and 24 females; 16 first-borns, 16 later-borns, and 16 only-children) were randomly selected for analyses. Within each ethnic group, there were 12 males and 12 females, and within each gender there were 4 first-borns, 4 later-borns, and 4 only-children. Demographic information on East Asian participants' self-identified gender, ethnicity, birth order, birth place, parents' birth place (US or non-US), and siblings (full, half, or step-sibling, sibling gender) is presented in Table 1. Demographic information on European/Caucasian participants is presented in Table 2.

Procedure

Data collected from previous years suggested that there would be a significantly smaller number of East Asian participants than European/Caucasian American participants in the introductory psychology subject pool. To balance the number of participants from each of the two ethnic groups, additional East Asian participants were recruited independently using email advertisements sent to East Asian student organizations, and flyers were posted in various buildings on school campus. All European/Caucasian participants for the study design were successfully recruited through the subject pool. Six East Asian participants were recruited through this method, and 26 were recruited through non-subject pool student groups.

Each participant consented to participate in a single individual interview conducted by the researcher. Participants were given an option of having their interview either audio-recorded

or recorded by typed notes by the researcher. All interviews were conducted in a private room in East Hall, and the audio-recording was done via a digital recorder on the researcher's lap top. The interview consisted of 49 questions (See Appendix). In addition to demographic information, the primary domains of questions assessed participants' views on siblings and birth order in relation to: achievement drive, social support, sense of family responsibility, self-confidence, communication within family, and parenting styles. Additional questions inquiring about the degree to which participants felt that their ethnicity and gender had affected that domain were asked. Interviews lasted approximately 30-45 minutes. Participants were free to skip any questions and were debriefed immediately following the interview. They were provided with a debriefing form, which explained the purpose of the current study, list of references on the subject matter, and contact information of the researcher, faculty advisor, and the IRB for questions that might arise in the future. The study was reviewed and approved by the University of Michigan IRB.

Qualitative Data Analysis

Seven out of 77 participants (5 East Asians and 2 European/Caucasians) chose to participate without being audio-recorded. Of the 48 interviews that were randomly selected for current analysis, four interviews with East Asians were based on typed notes, which were typed on the researcher's lap top during the interviews, and 44 interviews were based on transcripts of the audio-recorded interviews. Four interviews for each cell (East Asian male first-borns, East Asian male later-borns, East Asian male only-children, East Asian female first-borns, East Asian female later-borns, East Asian female only-children, European/Caucasian male first-borns, European/Caucasian male later-borns, European/Caucasian male only-children, European/Caucasian female first-borns, European/Caucasian female later-borns, and

European/Caucasian female only-children) were randomly selected for coding. The responses were coded using QSR NVivo 9 software which allows users to create nodes according to themes, code qualitative data electronically, and generate matrices of responses and participant classifications. Initially, the main nodes which corresponded to bigger themes were created based on the original interview questions. Additional levels nodes for sub-themes and responses were added under the main nodes, so that the final nodes represented the most comprehensive content coding. When responses were in ranges, nodes were created based on review of all 48 transcripts so that they incorporated all responses. Nodes were created and coded by the principal investigator and a collaborating graduate student. When coding was complete, matrices were generated that allowed researchers to analyze how many of a certain participant classification responded with a specific theme, and the data were presented both as the number of responses and the number of participants who responded. Our data is presented in terns of the number of participants. Some answers were double-coded (if a response applied to more than one theme, it was also coded under all of the relevant nodes that corresponded to it). The main nodes of themes under which our data were coded were: Personal Life History, Family History, Birth Order Related Issues, Ethnicity Related Issues, Self Confidence Rating, Sense of Responsibility, Social Support and Communication. Tables of responses in this paper present only the cells that show distinct patterns across birth status and/or ethnicities.

Results

Impact of Birth Status

Achievement drive (refer to item 1 on Table 3). Three pathways through which birth status affected the level of achievement drive included relationships with siblings, relationships with parents, and self-motivation. Among participants with siblings, the number of participants

who attributed their achievement drive to siblings did not differ by a large difference across birth status or ethnicities ($n_{East\ Asian}$=13/16, $n_{European/Caucasian}$=11/16). Achievement drive of first-borns (n=13/16) was often increased due to their need to satisfy their role as a role model or example setter for their younger siblings, while for later-borns (n=11/16), it was their need to meet the standards set by their older siblings. One European/Caucasian later-born mentioned that while having an older sibling improved his actual achievement because he had both tangible and intangible resources to draw upon from his brother's experiences, it has not increased his achievement drive.

In general, more East Asians (n=11/24) attributed the level of their achievement drive to their parents than did European/Caucasians (n=3/24). In addition, birth order effects in relation to this variable were more prominent in East Asians ($n_{first\text{-}born}$=5/8, $n_{later\text{-}born}$=2/8, $n_{only\text{-}children}$=4/8) than in European/Caucasians ($n_{first\text{-}born}$=1/8, $n_{later\text{-}born}$=0/8, $n_{only\text{-}children}$=2/8). For example, more East Asian first-borns and only-children, when compared to all other birth statuses of both ethnicities, indicated that they felt they needed to meet their parents' expectations. The following comments from East Asian participants illustrate how first-borns and only-children perceive their parents as a driving force of their achievement drive.

> East Asian (EA) first-born: "My parents always put more pressure on me, because I was the first child"
>
> EA only-child: "My parents expect a lot out of me, because I'm the only one that my parents have."

The number of participants attributing the level of their achievement drive to self-motivation rather than external factors was similar across birth status and ethnicities, with most European/Caucasian only-children (n=7/8) stating that. More European/Caucasians with siblings

(n=6/16) stated that their parents did not influence the level of their achievement drive than East Asians with siblings (n=2/16).

Self-confidence (refer to item 2 on Table 3). In general, twice as many European/Caucasians (n=22/24, $n_{\text{East Asians}}$=12/24) attributed the level of their self-confidence to their birth status. The number of participants who stated that their self-confidence was positively affected differed across birth status more among European/Caucasians (n=16/24) than East Asians (n=11/24). The majority of those who claimed that their birth status had a positive effect were participants with siblings (22/27), and the difference between response rates of first-borns and later-borns was not large in either ethnic groups. First-borns (n=10/16) explained that their birth status increased their self-confidence in several different ways, such as by giving them a sense of leadership or a need to appear self-confident in front of younger siblings, leading to feelings of self-confidence. One European/Caucasian (EC) first-born explained:

> "Since I'm the first, there is no older sibling for me to be compared to. There is no standard that's been set for me by another sibling, so I guess [being the first-born] probably increased [my self-confidence] a little bit."

Only-children (n=5/16) viewed their birth status as a positive factor for their self-confidence for a similar reason as stated above: that they did not have anyone to be compared to.

Only one European/Caucasian first-born stated that being the first-born affected his self-confidence negatively, because he is the one who always has to "figure out what to do." More European/Caucasians (n=9/24, $n_{\text{East Asians}}$=1/24), especially only-children (6/8), stated that the level of their self-confidence was negatively affected by their birth status. Later-borns explained (n=3/16) that having to live up to the standards set by their successful older siblings often decreased their self-confidence. Only-children (n=616) attributed their birth status' negative

effect to different reasons, one of them being that they have no one who is closer to their age to model after: "… the only people that I can model after are my parents and how they interact with people. … I might be more self-confident from relationships [with siblings] because they would be like my friends." Additional reasons why only-children stated that their birth status decreased the level of their self-confidence included feeling that they were less outgoing than those with sibling(s), experiencing pressure and attention from parents focused only on them, and lack of social support and friendship from family members who are closer in age.

In general, more East Asians (n=9/24, $n_{European/Caucasians}$=4/24) stated that their birth status did not affect their self-confidence. This pattern did not differ across birth status ($n_{first\text{-}borns}$=4/16, $n_{later\text{-}borns}$=4/16, $n_{only\text{-}children}$=5/16).

Sense of family responsibility (refer to item 3 in Table 3). The two main people for whom all participants felt responsible within their family were their parents and themselves (n=13/48, 7/48 respectively). The responses of 32 participants with sibling(s) on how much they feel responsible for their sibling(s) were also analyzed. Response rates for sense of responsibility for extended family members and friends/non-family individuals were eliminated from the table due to the absence of these categories in participant responses. Among participants with siblings, more first-borns expressed their sense of responsibility for their siblings. This birth status difference between first-borns and later-borns was larger in East Asians ($n_{first\text{-}borns}$=6/16, $n_{later\text{-}borns}$=1/16) than European/Caucasians ($n_{first\text{-}borns}$=5/16, $n_{later\text{-}borns}$=4/16).

> EA first-born: "[I feel] a pretty strong degree [of responsibility for my sibling], to set an example to do the right things."

One East Asian female participant expressed a financial responsibility for her younger brother, stating that she works to provide him with his allowance and pay part of the rent for the house

where they live together. When looking at the overall sample across both ethnicities, all but one later-born who stated that they feel responsible for their sibling(s) was middle-born (4/5) who have both older sibling(s) and younger sibling(s). The majority (3/4) of the later-borns mentioned that they feel more responsible for their younger sibling(s).

> EA later-born: "I feel more responsible for my younger sister just because she's younger. She's the baby of the family. So I want to look after her and make sure she is okay. If she needs anything financially, I always get it for her."

In general, more East Asians (n=8/24, $n_{European/Caucasians}$=5/24) expressed a sense of responsibility for their parents.

> EA first-born: "[I feel responsible for] maybe my mom when she has problems with language."

While no birth status difference was found among participants with siblings, more only-children ($n_{first\text{-}borns}$=3/16, $n_{later\text{-}borns}$=3/16, $n_{only\text{-}children}$=7/16) expressed a sense of responsibility for parents in both ethnic groups. Only later-borns (n=7/48) and European/Caucasian only-children (n=3/48) stated that they feel less family responsibility in general.

Wish to have siblings/be an only-child? (refer to item 4 in Table 3). Near the end of the interview, only-children were asked if they ever wished to have siblings, and those with siblings were asked if they ever wished to be an only-child. The majority of participants with siblings (24/32) did not wish to be an only-child, while only 5 out of 16 only-children did not wish to have siblings. The number of participants with siblings who wish or have wished to be an only-child was relatively low in both ethnic groups. Of those with siblings who expressed their wish to be an only-child, the majority (6/8) stated that they had wished for this in the past when they were young children, but no longer desired this. One East Asian later-born stated that he

wished to be an only-child when he realized that material resources from his parents were limited because he had to share them with his siblings. One European/Caucasian first-born also mentioned the limitations of material resources as one of the reasons for his wish to be an only-child, but he also stated that he wishes so when he "wishes to be left alone in a quiet house." When looking at the overall sample, twelve out of 16 only-children stated that they wish or have wished to have siblings. The main reasons for this wish included having a role model to follow other than their parents, and having extra emotional support.

Impact of Ethnicity

Achievement drive (refer to item 1 in Table 4). Overall, more East Asians (n=14/24), especially first-borns (7/14), stated that their ethnicity has affected the level of their achievement drive than did European/Caucasians (n=6/24). The factors influencing achievement drive did not differ across birth status within the same ethnic group. More than half of the East Asians (8/14) stated that their achievement drive has been increased by their desire to meet the expectations others have for Asians, who are often described as "model minority." Others also stated that they are driven to achieve especially when they are in a situation where they are the only person of ethnic minority background. In those situations, their achievement drive was attributed to their desire to excel above the majority population, thus maintaining the pride of their ethnic group. More European/Caucasians with siblings (n=9/16) reported that their ethnicity did not affect the level of their achievement drive, while the number of only-children who reported this was equal across the two ethnic groups (n=5/8). Only European/Caucasians (n=5/24) stated that they did not know how their ethnicity might have affected the level of their achievement drive.

Self-confidence (refer to item 2 in Table 4). In general, there were more East Asians who stated that their ethnicity has affected the level of their self-confidence (n=15/24,

$n_{European/Caucasians}$=8/24). In the East Asian sample, those who stated that their ethnicity has affected their self-confidence negatively were higher in number (n=10/15, $n_{European/Caucasians}$=2/8), while in the European/Caucasian sample, those who stated that their ethnicity has affected their self-confidence positively were higher in number (n=6/8). East Asians who said that their ethnicity has affected their self-confidence positively (n=5/15) also expressed a high level of pride in their ethnicity. East Asians who said that their ethnicity had a negative impact on their self-confidence attributed it to the fact that they often felt like a social outcast:

> EA only-child: "I think that, when I came to America, it decreased [my self-confidence] some amount. … I don't have as colorful a childhood or high school as Americans do, because in China, they just study. But in America, they have a lot of opportunities to explore their interests. So I'm not confident [when being compared in that]."

European/Caucasians who said that their ethnicity affects their self-confidence positively stated that being in the majority has made them feel more confident than someone of an ethnic minority might feel. Two European/Caucasians who said that their self-confidence was affected negatively by their ethnicity identified themselves as Jewish and Turkish, respectively. These participants identified themselves as ethnic minority as well, for instance, stating that "being a minority is not easy," and attributed their lower self-confidence to similar reasons as East Asians.

Sense of family responsibility (refer to item 3 in Table 4). This was one of the domains in which a very noticeable ethnic difference was observed. For example, only East Asians (n=8/24) expressed that their sense of responsibility for their family members has been affected by their ethnicity, and more European/Caucasians stated that their sense of family responsibility was not affected by their ethnicity (n=14/24, $n_{East\ Asians}$=6/24) or that they did not know how their ethnicity might have affected their sense of family responsibility (n=5/24, $n_{East\ Asians}$=1/24). East

Asians who expressed a sense of family responsibility attributed this to their family-oriented culture that encourages them to take care of their family.

> EA only-child: "I think for friends, ethnicity doesn't matter a lot, but with family, it matters, because in Asian families we are very interdependent on one another in terms of financials and emotional support. So I should be very responsible for them, in every aspect."

Communication (refer to item 4 in Table 4). Among participants with siblings, only 3 East Asians and 2 European/Caucasians stated that their communication with their siblings has been affected by their ethnicity. On the other hand, participants who stated that their communication with their parents were affected were higher in number in both ethnic groups, especially in the East Asian sample (n=13/24, $n_{European/Caucasians}$=5/24). East Asians primarily stated that their ethnicity has affected communication with their parents negatively. Within their responses, the two main reasons were language and cultural barriers.

> EA later-born: "My mom is really into traditional Chinese culture, so I feel like it's hard to communicate with her. So I kind of avoid face-to-face confrontations with her. [We talk] more over the phone because if we don't agree on something, I don't have to look at her."

All but one European/Caucasian (4/5) stated that their ethnicity has affected communication with their parents positively, because they felt that European/Caucasian parents are stereotypically "more open" than parents of other ethnicities. One European/Caucasian only-child who stated that his ethnicity has affected communication with his parents negatively was born and raised outside of the U.S. He expressed that his parents were "a little bit more conservative compared to

the U.S. culture," and that "anything too intimate wouldn't be a topic of discussion" with his parents.

In general, more European/Caucasians (n=15/24, $n_{East\ Asians}$=8/24) stated that their ethnicity did not affect communication within their family, and no birth status difference was observed ($n_{first\text{-}borns}$=9/16, $n_{later\text{-}borns}$=6/16, $n_{only\text{-}children}$=8/16). Only European/Caucasians (n=4/24) also stated that they did not know how their ethnicity might have affected their communication within family.

Sense of Responsibility (Refer to Table 5)

Questions about participants' sense of responsibility for various individuals in their life were also asked. Although participants were not explicitly encouraged to think about their birth status or ethnicity this time, several birth status and ethnic differences emerged in their responses.

Some ethnic differences were found in participants' responses. For example, the number of East Asian first-borns (n=4/8) stating that they feel very responsible for their sibling(s) was higher than the numbers of East Asian later-borns (n=1/8) or European/Caucasians of any birth status ($n_{first\text{-}borns}$=2/8, $n_{later\text{-}borns}$=0/8). In addition, only East Asians (n=5/24), especially first-borns (3/8), stated that they try to meet their sense of family responsibility by being responsible for their own self. Responses indicated that this was achieved mostly by studying hard or working to support oneself financially. A birth status pattern that was unique to East Asians was that more only-children (n=4/16) reported feeling responsible for their parents than participants with siblings ($n_{first\text{-}borns}$=1/16, $n_{later\text{-}borns}$=1/16).

The number of participants who expressed a sense of responsibility for their friends and non-family members ($n_{East\ Asians}$=11/24, $n_{European/Caucasians}$=8/24; $n_{first\text{-}borns}$=7/24, $n_{later\text{-}borns}$=7/24, $n_{only\text{-}children}$=5/24) or who stated that they do not feel responsible for anyone ($n_{East\ Asians}$=6/24,

$n_{European/Caucasians}$=9/24; $n_{first\text{-}borns}$=5/16, $n_{later\text{-}borns}$=4/16, $n_{only\text{-}children}$=6/16) did not differ across birth status or ethnicities by a large degree.

Perceptions of Family Communication (Refer to Tables 6 & 7)

Participants were asked about their overall communication patterns and styles with siblings and parents. In terms of the frequency of communication with both parent and sibling(s), no distinct differences were found across birth statuses or ethnicities. However, there were differences in the comfort level, communicational preferences between sibling(s), and the content with which they felt comfortable/uncomfortable discussing with their parents and sibling(s).

When looking at the comfort level of communicating with siblings, more European/Caucasians (n=14/32) stated that they were comfortable communicating with their sibling(s) than did East Asians (n=11/32). No distinct birth status differences were observed. Three East Asians who stated that they were not comfortable communicating with their sibling(s) at all, while no European/Caucasians stated this. Of the topics in which participants preferred discussing with their sibling(s) than their parents, romantic or social issues with friends had the highest response rate (n=7/32) in the East Asian sample, while family issues had the highest response rate (n=8/32) in the European/Caucasian sample. More East Asians (n=7/24, $n_{European/Caucasians}$=2/24) stated that there is no topic that they would feel more comfortable discussing with their sibling(s) than their parents, and the rate for this response was consistent across birth status in both ethnic groups ($n_{first\text{-}borns}$=4/16, $n_{later\text{-}borns}$=4/16, $n_{only\text{-}children}$=1/16).

Participants with more than one sibling (n=16) were asked to indicate if they prefer to communicate with any specific sibling(s). They generally based their preferences on the siblings' age, gender, proximity of current residence, or personality traits or hobbies. The bases on which

most participants made their preferences were the siblings' age and personality traits or hobbies. Responses of participants who based their preferences on the siblings' gender or proximity of current residence were not represented in the table because the number was relatively insignificant. More European/Caucasians (n=6/16, $n_{East\ Asians}$=2/16) indicated that they would base their preferences on the siblings' age, and all but one European/Caucasian (5/16) preferred to communicate with siblings who are closest in age with them.

> EC first-born: "I have a fun time with my younger sister, but it's not easy. … we are in such different stages of life, so sometimes we don't necessarily understand each other as much."

Three European/Caucasians preferred to communicate with siblings with whom they share similar personality traits or participate in similar hobbies.

> EC later-born: "Even when I was younger, we would go to movies and do stuff together. And even when he comes home from college, he will plan things and activities… so I spend the most time with him."

In general, participants did not show noticeable birth status differences in terms of how comfortable they feel about communicating with their parents ($n_{first\text{-}borns}$=10/16, $n_{later\text{-}borns}$=12/16, $n_{only\text{-}children}$13/16). However, some ethnic differences were observed. More European/Caucasians with siblings (n=13/16, $n_{East\ Asians}$=9/16) stated that they generally feel comfortable communicating with their parents, and more East Asians (n=6/24, $n_{European/Caucasians}$=1/24) stated that they are not comfortable communicating with their parents at all. Across all birth status and ethnicities, participants were most comfortable discussing with their parents about their academic, career, and financial problems (n=43/48) than they were discussing about romantic or social problems (n=27/48) or family issues (n=11/48). More European/Caucasians (n=8/24, n_{East}

$_{Asians}$=3/24) stated that they would feel comfortable discussing about family issues with their parents. While more later-borns stated that they would feel comfortable discussing everything with their parents in the East Asian sample (n=4/24), more first-borns stated that in the European/Caucasian sample (n=4/24). The number of only-children who stated that they would feel comfortable discussing everything with their parents was equal across the two ethnic groups (n=3/8). The topic that participants felt most uncomfortable discussing with their parents was their romantic or social issues with friends (n=34/48), and more East Asians (n=20/48) stated that they would not feel comfortable discussing about them. Only East Asians (n=4/24) stated that they would not feel comfortable discussing about their academic, career, and financial problems with their parents, and only European/Caucasians (n=5/24) stated that they do not have a topic that they would not feel comfortable discussing with their parents.

Sources of Social Support (refer to Table 8)

In this domain, participants were first asked to indicate how satisfied they were with the current level of social support they receive as a child of their birth status. Participants with sibling were then asked to state for which domains of life they were least and most likely to rely on their sibling(s). Next, all participants were asked to state with whom they would share the following types of negative and positive events the most.

More later-borns (n=14) stated that they were satisfied with the current level of social support from their siblings, and this pattern was more distinct in East Asians ($n_{first\text{-}borns}$=2/16, $n_{later\text{-}borns}$=6/16, $n_{only\text{-}children}$=3/16).

> EA later-born: “[My brother] is pretty reliable already. I don’t feel comfortable talking about emotions with him, but he is reliable enough. I don’t expect him to do more.”

On the other hand, more first-borns (n=7/16) and only-children (n=9/16) stated that they were not satisfied with the current level of their social support from siblings or not having siblings, and this pattern was more distinct among East Asians ($n_{first\text{-}borns}$=6/8, $n_{later\text{-}borns}$=2/8, $n_{only\text{-}children}$=4/8).

> EA first-born: "It's hard to blame [my brother] for not being available because he's younger, but I wish he was [more reliable]... It's hard to talk to him when he doesn't have the development [that matches mine]."
>
> EA only-child: "I really wish I had a sibling. There are so many problems that you can't tell your friends and sometimes it's hard to communicate with my parents."

When asked to state which domains of life participants were least likely to rely on their sibling(s), some birth status and ethnic differences were observed. For example, within the East Asian sample, more first-borns (n=5/8) stated that they would be least likely to rely on their sibling(s) for academic, career, and financial issues than later-borns (n=1/8), but this birth status difference was not observed in the European/Caucasian sample, in which the similar number of first-borns (n=4/8) and later-borns (n=5/8) stated that they were least likely to rely on their sibling(s) for those issues. More East Asian later-borns stated that they were least likely to rely on their sibling(s) for romantic or social issues (n=6/32) than academic, career, and financial issues (n=1/32). Only East Asians (n=2/24) stated that they were least likely to rely on their sibling(s) for all domains listed.

In both ethnic groups, more later-borns (n=7/8, $n_{first\text{-}borns}$=2/8) stated that they were most likely to rely on their sibling(s) for academic, career, and financial issues. On the other hand, more East Asian first-borns (n=4/8) stated that they were most likely to rely on their sibling(s) for romantic or social issues than East Asian later-borns (n=1/8), and no birth status difference

was observed in the European/Caucasian sample, where the same number of first-borns and later-borns stated that (n=3/8). More European/Caucasians (n=8/24) stated that they were most likely to rely on their sibling(s) for family issues than East Asians (n=4/24), and no birth status pattern was observed ($n_{first\text{-}borns}$=6/16, $n_{later\text{-}borns}$=6/16). Only European/Caucasians (n=3/24) stated that they were most likely to rely on their sibling(s) for anything positive.

To analyze with whom participants would share the most when they experience different types of negative and positive events, two different matrix coding queries were developed: one for only-children (which excluded nodes about siblings) and another for those with siblings.

Negative Events

Emotional distress (refer to item 1 in Table 9). Participants with siblings were more likely to share their emotional distresses with their parents (n=19/32) and friends/non-family (n=16/32) than their siblings (n=3/32). However, both European/Caucasian first-borns (n=6/8) and later-borns (n=7/8) were more likely to share them with their parents, and both East Asian first-borns (n=5/8) and later-borns (n=5/8) were more likely to share them with their friends/non-family. In East Asians, later-borns and only-children were more likely to share them with their parents ($n_{first\text{-}borns}$=2/8, $n_{later\text{-}borns}$=4/8, $n_{only\text{-}children}$=4/8), while no large birth order differences were found in how much European/Caucasians would share them with their parents ($n_{first\text{-}borns}$=6/8, $n_{later\text{-}borns}$=7/8, $n_{only\text{-}children}$=6/8) or in how much participants with siblings would share them with their friends/non-family ($n_{first\text{-}borns}$=3/8, $n_{later\text{-}borns}$=3/8, $n_{only\text{-}children}$=2/8).

European/Caucasian only-children (n=6/8) were slightly more likely to share their emotional distress with their parents than East Asian only-children (n=4/8), while East Asian only-children (n=6/8) were more likely to share them with their friends/non-family than European/Caucasian only-children (n=2/8).

Sharing conflicts with parents (refer to item 2 in Table 9). Almost no birth order or ethnic differences were found in how much participants with siblings would share about their parental conflicts with their friends/non-family. Also no difference was found in how much they would address them directly to their parents. However, the number of "siblings" as responses was the highest (n=17/32) in this domain than any other. Slight birth order and ethnic differences were found in how much they would share with their siblings; the number of later-borns (n=5/8) who would share with their siblings was higher than first-borns (n=3/8) in East Asians, but the pattern was reversed in European/Caucasians ($n_{\text{first-borns}}$=6/8, $n_{\text{later-borns}}$=3/8).

Only-children were generally more likely to share these problems with their friends/non-family (n=9/16) than keeping to themselves (n=2/16) or sharing with extended family members (n=2/16) or directly with parents (n=3/16). However, European/Caucasian only-children were more likely to share them with their friends/non-family (n=6/8, $n_{\text{East Asians}}$=3/8), while East Asians were more likely to keep to themselves (n=2/24, $n_{\text{European/Caucasians}}$=0/24) or share with their extended family members (n=2/24, $n_{\text{European/Caucasians}}$=0/24). No ethnic difference was found in how much only-children would discuss conflicts with their parents directly with their parents ($n_{\text{East Asians}}$=1/8, $n_{\text{European/Caucasians}}$=2/8).

Problems in romantic relationships (refer to item 3 in Table 9). In general, participants with siblings were much more likely to share problems in romantic relationships with their friends/non-family (n=21/32) than with their parents (n=10/32) or siblings (n=5/32). However, East Asian only-children (n=4/8) and European/Caucasians first-borns (n=4/8) were more likely to share with their parents than later-borns (n=2/8), only-children (n=2/8), East Asian later-borns (n=3/8), or first-borns (n=1/8).

Only-children of either ethnicity did not show large differences in how much they would share with their parents versus their friends/non-family ($n_{East\ Asians}$=6/16, $n_{European/Caucasians}$=5/16). No significant birth order effect was present either ($n_{first\text{-}borns}$=9/16, $n_{later\text{-}borns}$=12/16, $n_{only\text{-}children}$=11/16).

Problems with friends (refer to item 4 in Table 9). For participants with siblings, no significant birth order or ethnic differences were found in how much they would share with their parents, siblings, or friends/non-family. Only one European/Caucasian first-born said he/she would keep to him/herself, and no participant said they would share them with extended family members.

More distinct ethnic effects were observed in only-children. More European/Caucasians preferred to share problems with friends with their parents (n=5/8, $n_{East\ Asians}$=2/8), while more East Asians preferred to share with friends/non-family (n=6/8, $n_{European/Caucasians}$=2/8). One East Asian and 2 European/Caucasians responded that they would keep to themselves, and no one would share with extended family members.

School and academic problems (refer to item 5 in Table 9). Participants with siblings were a lot more likely to share their school and academic problems with their parents (n=21/32) and friends/non-family (n=13/32) than sibling(s) (n=3/32). While no significant birth order differences were present, European/Caucasians were more likely to share these problems with their parents (n=20/24) than friends/non-family (n=6/24), while East Asians were more likely to share them with their friends/non-family(n=14/24) than their parents (n=11/24).

Overall, only-children were slightly more likely to share them with their parents (n=10/16) than their friends/non-family (n=7/16). More specifically, more European/Caucasian only-children responded that they would share with their parents (n=6/8, $n_{East\ Asians}$=4/8), while

more East Asian only-children would share with their friends/non-family (n=3/8, $n_{European/Caucasian}$=1/8). These differences were not large, however.

Career concerns (refer to item 6 in Table 9). In general, East Asians (n=5/16, $n_{European/Caucasians}$=2/16) were slightly more likely to share their career concerns with their siblings, but no birth order differences were observed in either ethnic group ($n_{first\text{-}borns}$=3/16, $n_{later\text{-}borns}$=3/16). Participants with siblings were more likely to share their career concerns with their parents (n=10/32) or friends/non-family individuals (n=9/32) than their siblings (n=4/32). The number of later-borns who would share their career concerns with their parents did not differ between the two ethnic groups (n=1/16), but more European first-borns (n=7/8, $n_{East\ Asians}$=4/8) said that they would share their career concerns with their parents. The number of "friends/non-family" responses was higher in East Asians than European/Caucasians for both birth orders. However, East Asian later-borns were much more likely to share them with their friends/non-family than East Asian first-borns or European/Caucasians. European/Caucasians did not show birth order differences in how much they would share their career concerns with their friends/non-family ($n_{East\ Asians}$=8/24, $n_{European/Caucasians}$=7/24).

The only ethnic difference observed concerning with whom only-children would share their career concerns the most was in the number of "friends/non-family" as responses. More European/Caucasians (n=6/8) stated that they would share their career concerns with their friends/non-family than East Asians (n=3/8).

Financial problems (refer to item 7 in Table 9). For both participants with siblings and only-children, participants were most likely to share their financial problems with their parents (n=42/48) than anyone else. Only 3 East Asians responded that they would share them with their siblings. No other significant birth order or ethnic differences were found.

Work problems (refer to item 8 in Table 9). In general, participants with siblings were more likely to share their work problems with their parents (n=20/32) and friends/non-family (n=14/32) than their siblings (n=5/32). No significant birth order differences were present, but European/Caucasians were generally more likely to share them with their parents (n=17/24) than with friends (n=7/24).

The number of only-children who said they would share these problems with their parents (n=10/16) was the higher than those who would share with friends/non-family (n=4/16), and this discrepancy was larger in European/Caucasian only-children.

Positive Events

Happy occasions in family (refer to item 1 in Table 10). In general, no significant birth order effects were found in participants with siblings. Participants with siblings generally responded that they would share happy occasions in family with their parents ($n_{first\text{-}borns}$=14/16, $n_{later\text{-}borns}$=14/16) more than with their siblings ($n_{first\text{-}borns}$=9/16, $n_{later\text{-}borns}$=7/16), while more East Asians (n=16/24) said they would share with their friends than European/Caucasians (n=7/24), and more European/Caucasians (n=8/24) said they would share with their extended family members than East Asians (n=5/24). Three European/Caucasian first-borns, 1 European/Caucasian later-born, and 1 East Asian later-born said they would share them with everyone.

"Parents" was the most predominant response among only-children, and "friends & non-family" was the second. Only 1 East Asian only-child stated that they would share them with everyone.

Happy occasions in romantic relationships (refer to item 2 in Table 10). Responses were generally evenly distributed across birth orders and ethnicities. A larger number of

participants said that they would share these with their friends/non-family (n=36/48) more than with their parents (n=17/48), and this difference was distinct in all birth status and ethnicities except for European/Caucasian first-borns. No one said that they would share these with everyone.

Happy occasions in social relationships (refer to item 3 in Table 10). A larger number of participants said that they would share these with their friends/non-family (n=36/48) than with their parents (n=24/48). No such pattern was found in European/Caucasian first-borns or only-children of both ethnicities, who showed relatively similar numbers of responses for both "parents" and "friends/non-family."

School and academic achievements (refer to item 4 in Table 10). This was the only domain in which all participants indicated that they were less likely to share with their friends/non-family (n=7/48) as responses than their siblings (n=10/32). While the number of European/Caucasian first-borns (n=3/8) and later-borns (n=2/8) who stated that they would share their academic achievements with their sibling(s) did not differ by a large degree, more East Asian later-borns (n=4/8) stated that they would share them with their sibling(s) than East Asian first-borns (n=1/8). In general, participants of all birth orders and ethnicities were more likely to share these events with their parents (n=42/48) than anyone else. The numbers of East Asians and European/Caucasians who would share them with their siblings were equal, but the difference between responses of first-borns and later-borns was greater in East Asians, with 4 out of 5 later-borns stating that they would share their achievements with their siblings compared with and only one out of 5 first-borns stating that.

Only-children were more likely to share their achievements with their parents with anyone else, across the two ethnicities ($n_{\text{East Asians}}$=8/16, $n_{\text{European/Caucasians}}$=7/16).

Promotion and success in career (refer to item 5 in Table 10). Among participants with sibling(s), more European/Caucasian first-borns (n=6/8) stated that they would share their successes in career with their sibling(s) than East Asian first-borns (n=1/8). No distinct difference was found in the response rate of later-borns of the two ethnic groups. In general, participants were much more likely to share these with their parents (n=43/48) than their friends/non-family (n=18/48). This pattern was distinct in all birth status and ethnicities.

Discussion

The current qualitative study explored East Asian college students' perspectives of sibling relationships and birth status (only-child and birth order among siblings) and compared these to peer European/Caucasian perspectives in these areas. Specific topics explored sibling relationships and birth status in relation to achievement-drive, self-confidence, sense of responsibility, communication within family, and social support as well as the potential influence of their ethnicity in these areas. Although the study's sample size and qualitative data cannot be used to draw strong conclusions, they provide useful beginning to descriptive information.

Overall, the findings showed similar levels of reported achievement drive, self-confidence, sense of responsibility, family communication, and social support. For example, across all birth status and ethnicities, participants did not show large differences in the self-reported level of achievement drive or self-confidence. This finding did not support prior research findings which suggested that only-children had a higher sense of academic achievement drive (Polit et al., 1987). All participants tended to report a relatively high sense of academic achievement drive, and none stated that they felt their academic drive was particularly low. This variance from the previous finding could be attributed to a sampling bias. The recruitment strategies implemented for this study only targeted college students at the University

of Michigan, which is a highly competitive academic institution. This may have created a selective population of participants who generally have high academic drive.

In addition, no large difference was found in how much participants felt responsible for their friends or non-family individuals. This suggested that one's birth status and ethnicity may be most influential in relation to family responsibility. The general sense of family responsibility was found to be similar in the two ethnic groups as well. A study done by Fuligni et al. (2002) may provide a possible explanation for this similarity. Soon after entering college, the level of family assistance between East Asians became similar as that of European Americans, which was found to be originally lower than any other ethnic group (East Asian, Filipino, and Latin American). As East Asians were more likely to attend 4-year colleges and move away from their home than any other ethnic group of young adults, this pattern was explained by the possibility of East Asian students moving away, not only physically but also socially and culturally, from their original family values (Fuligni et al., 2002). The following East Asian first-born participant's response reflects this phenomenon:

> EA first-born: "Since I'm in college, [I don't feel] much [responsibility]. … I started working, and I think my parents want me to be more independent, financially."

In terms of negative and positive domains of social support, no large ethnic difference was found in the amounts of social support that participants sought from their parents versus their sibling(s)/friends in domains of emotional distress, conflicts with parents, problems with friends, work problems, and financial problems. The fact that no ethnic difference was found in these domains suggested that these problems may have relatively less cultural implications and are universal to both East Asians and European/Caucasians.

The above findings suggest that East Asians and European/Caucasians share many similar values and experiences. However, the current study also found differences between the two ethnic groups in relation to birth status on other variables. The interaction between birth status and ethnicity was more complex than expected in the original hypotheses.

Achievement Drive

While the current study did not support prior research findings about the effect of birth status on achievement drive, some differences across birth status and ethnicities were observed in participants' responses on how their birth status and ethnicity might have affected their achievement drive. Responses of participants with siblings often described the relationship between first-borns and later-borns as a reciprocal one between role models or example-setters and those that follow them, and participants of both birth statuses generally felt that this relationship increased their achievement drive.

An ethnic group difference was found in how much participants attributed their achievement drive to their parents: more East Asians stated that their achievement drive has been affected by their parents. This could be explained by the East Asian cultural arrangements in which their parents place a high value on education (Schneider and Lee, 1990) and have high academic expectations (Goyette and Xie, 1999; Kao, 2004). In addition, more East Asians stated that their ethnicity has affected their achievement drive, and one of the main explanations was that they felt they needed to fulfill the "model minority" stereotypes that they believe non-Asians hold of them. As noted by Wong and Halgin (2006), studies have shown that although the actual achievement levels measured by school performance and scores from standardized tests do not differ across ethnicities, people from other ethnicities as well as Asian Americans themselves expect academic achievement of Asian American students to be higher than those from other

ethnic backgrounds. In the current study, our findings were consistent in that East Asians, the "model minority," were aware of the high expectations that Asians and non-Asians had of them. However, the current study only investigated self-reported achievement drive, and did not explore the potential effects of the awareness of the "model minority" stereotypes on actual achievement.

Self-Confidence

The patterns across birth status and ethnicities for the domain of self-confidence were also more complicated than expected in the original hypothesis. Only-children, especially European/Caucasians, stated that their self-confidence was negatively affected by their birth status, and this was quite different from what was expected from the original hypothesis. The fact that this pattern was more prevalent in the European/Caucasian sample might be attributed to the U.S. culture that places a stronger emphasis on sociality, as many participants who have responded as such attributed the negative influence on social factors, such as being more shy.

Sense of Responsibility

Some findings from the current study on participants' sense of responsibility for different individuals were consistent with the findings from previous studies which suggested that first-borns may express a high sense of family responsibility. For example, more East Asian first-borns stated that they feel very responsible for their sibling(s) and also were more likely to express a high sense of responsibility for themselves than any other birth status or European/Caucasians. Parents' expectation for older children to be the primary caregivers of their younger siblings (Pollack, 2002) is reflected in the fact that first-borns were more likely to feel very responsible for their siblings than later-borns. The fact that this pattern was more

distinct in East Asians provides additional insight into how stronger emphasis on family hierarchy in East Asians may be influencing first-borns' sense of responsibility for siblings.

A finding from the current study that varied from previous research (Kureishi et al., 2010) was that more only-children expressed a sense of responsibility for their parents than did participants with siblings. A higher sense of responsibility for parents in only-children could be explained by the fact that they do not have siblings to share that responsibility. In contrast, that responsibility may be divided between siblings in families with more than one child.

Another ethnic difference found was that only East Asians, especially first-borns, considered being responsible for oneself as one of the ways of meeting their sense of family responsibility. This pattern indicated that more East Asians considered their personal responsibility also as a family responsibility. Therefore, for East Asians, taking care of oneself is another way of being responsible for one's family, whereas for European/Caucasians, personal responsibility and family responsibility are two separate concepts. As indicated in the quotes, a possible explanation is that East Asians view taking care of themselves and doing well as a source of future support for their family. Another possible explanation for this difference includes a tendency of East Asian parents to place heavier importance on self-control and doing well at school (Julian, McKenry, & McKelvey, 1994). East Asian students might be more inclined to feel responsible by being independent and succeeding at school because by doing so, they are able to meet their parents' expectations and, in turn, fulfill family obligations. In addition, the fact that more first-borns equated personal responsibility and family responsibility also provides insight into how family responsibility is perceived across different birth statuses. First-borns were more likely to perceive their personal responsibility as family responsibility, and this may be because first-borns are more likely to understand parents' added burden of

raising more than one child. Parents' responsibility to take care of their younger sibling(s) may also be more salient to first-borns because they may be, either voluntarily or involuntarily, assigned some of their parents' responsibility and directly experience that burden. Therefore, by lifting part of their parents' responsibility for their first-born child, first-borns may be more inclined to feel that they are fulfilling family responsibility.

Communication

In contrast with findings reported by Van Volkom et al. (2011), the results from the current study found that first-borns, especially European/Caucasian Americans, preferred to communicate with a sibling that is closest in age with them. The difference between results from these two studies may be attributed to the differing structures of the questionnaires. In Van Volkom et al.'s study (2011), participants were asked about their comfort level with each of their siblings, whereas in the current study, participants with more than one sibling were directly asked to indicate if there is one sibling with whom they preferred to communicate. Although participants were asked to choose one sibling only if they had a preference, the question itself might have triggered participants to reconsider and choose one sibling despite the similar levels of comfort they feel with each of their siblings in actuality. Unlike what was suggested by Spitze et al. (2006), the results from the current study did not display gender differences in the self-reported frequency of communication with sibling(s). This discrepancy could be attributed to the difference between the measures of frequency used in the two studies. In the former study, the frequencies were compared by numbers per month provided by participants, while in this study, the frequencies were categorized into three subtypes: more than two times a week, every week, and every other week or less. As a result, what was considered significantly different in the previous study, for instance, such as 3 times versus 5 times a month, would not be considered

different in the current study, because both numbers would be categorized as “every other week or less.” This finding also suggests that in future studies, differences across birth status and ethnicities, as well as genders, might be found in frequencies of communication, if smaller units of frequency are used.

More European/Caucasians stating that they are comfortable communicating with their sibling(s) might be due to the culture in which family hierarchy according to age is less emphasized. The fact that more East Asians preferred to discuss about their romantic and social life with their sibling(s) than with their parents could be attributed again to the cultural gap between the parents and their children, which would be smaller or not present between sibling(s).

Social Support

Findings regarding sources of social support in relation to negative life events/concerns (such as in career concerns, problems in romantic relationships, and school and academic problems) were consistent with the hypothesis that the discrepancy between the amount of social support that participants seek from their parents versus their sibling(s) and friends would be greater for East Asians. More specifically, East Asians but not European/Caucasians were much more likely to rely on their parents and friends/non-family individuals for career concerns and school and academic problems than on their sibling(s). For problems in romantic relationships, East Asians but not European/Caucasians were much more likely to only rely on their friends and non-family individuals than parents or sibling(s). East Asian students’ reluctance to discuss their career concerns and academic problems with their sibling(s) could be attributed again to the reciprocal relationship of first-borns and later-borns as role models and their followers, respectively. By revealing those problems, first-borns may feel that they are failing to serve as role models for their younger sibling(s), and later-borns may feel that they are not living up to

their older siblings' successes. Their reluctance to discuss their problems regarding romantic relationships with their parents could be attributed to the cultural gap that exists in the views on romantic relationships between them and their parents. Previous findings have suggested that some East Asian perspectives on relationships and marriage are different from those of European/Caucasians Americans (Huang, 2005). This may create a cultural gap between the perspectives on relationships of East Asian parents and children, especially if the children were born and raised in the U.S. In order to avoid conflicts with their parents due to this gap, East Asians might be more hesitant to discuss their current relationship status or perspectives on such issue.

Of the positive domains of social support, the number of participants who would share with their sibling(s) their school and academic achievement was higher than in any other positive domains. This pattern is consistent with another finding from the current study that both first-borns and later-borns were reluctant to share their school and academic problems with their sibling(s). The finding that more later-borns stated that they would share their academic success with their older sibling(s) could be explained by the possibility of their achievements being overshadowed by their older siblings achieving the same achievements first, and therefore needing to explicitly indicate their successes. Birth status or ethnic differences in how much participants would share positive events with someone were generally absent. This suggests that willingness and/or reluctance to share positive events with a specific individual(s) may not be as salient for people in general as they may be for negative events.

Limitations

It is important to consider the limitations of the current investigation. The small sample sizes per cell in the study design and a non-representative sample of participants present

important limitations. Additionally, data collection, transcribing, and analysis, were conducted only by the principal investigator. Coding was done by the principal investigator and a collaborating graduate student: the majority (43/48) by the principal investigator and 5 out of 48 by the collaborating graduate student, but the study did not include a second coder to check for reliability of coding. As indicated in Table 1, our sample included various ethnic groups within the East Asian population. Grouping the participants simply as East Asians poses a problem, because studies suggest that even within one larger ethnic group, individuals from varying countries have different experiences and can have different family structures (Jeong & You, 2008).

Another important issue is the fact that all the interviews were conducted by the principal investigator, who is an East Asian female. This is likely to have affected all responses, possibly increasing the ease with which East Asian participants provided information and leading male or European/Caucasian participants to be less comfortable providing responses, particularly their views on gender and ethnicity. For example, in domains of achievement drive, male participants were more likely to respond that they did not know how their birth order or ethnicity has affected those variables or that they did not affect those variables at all. Similarly, European/Caucasians were more likely than East Asians to state that they did not know how their birth status affected them.

The differentiation between participants' achievement drive versus actual achievement, such as their GPA, might have provided a better understanding of the difference between self-reported motivation and actual outcome of their motivation. As noted by Sputa and Paulson (1995), GPA and other measures of actual academic achievement can be an indicant of achievement drive. Unfortunately, the present study did not gather information on participants'

GPA and as a result, could only provide information on participant views on their achievement drive.

The immigration status and socioeconomic factors are also important variables that need to be taken into account, as they have been found to be the moderating variables in other studies on family dynamics (Julian et al., 1994). For example, the ethnic difference found in the family communication may be attributed to the immigration status rather than on their ethnicity. Therefore, the negative perception of their family communication among East Asians might be due to the immigration status and the discrepancy between parents and children in how much they are assimilated into the U.S. culture. This further implies that European/Caucasians who have parents born outside of the U.S. may show similar patterns in considering their ethnicity as a negative influence on their family communication.

Future Directions

Future studies that address the limitations of the current study will provide a more complete picture on how experiences of an East Asian college student as an only-child or a sibling are affected by one's birth status and ethnicity. First of all, studies that have larger sample sizes will assess variables more accurately. Larger numbers of participants from each country within East Asia will also better address cultural influences because family culture is shown to vary across different nationalities, not just across larger classifications of ethnicity. In addition, sampling populations other than college students would provide more insight into participants' perspectives on birth order and sibling relationships at different developmental stages and varied levels of achievement drive and life contexts.

The problem posed by the interviewer's gender and ethnicity may be addressed by matching the gender and ethnicity of the interviewer with participants. Another method that may

address this problem is obtaining responses electronically, or in some other way that does not reveal the gender, ethnicity, or any other characteristic of the interviewers that might influence the responses of participants.

The lower response rates of European/Caucasian participants on the questions about perceptions of ethnic influences may be addressed by changing the format of the interview questions. For example, instead of asking them to reflect on how their "ethnicity" has affected a variable (Refer to Appendix), asking European/Caucasians to reflect on how the "Western culture" has affected a variable might have produced a higher response rate, while retaining the original goal of the question. Overall, more careful wording of the interview questions that might maximize the response rate and retain original values will be necessary for the improvement of future studies.

As previously stated, investigating additional variables, such as socioeconomic factors, the immigration status, actual academic achievement, and marital status of parents, will provide a more accurate insight into how birth status, ethnicity, and these variables are interconnected.

Despite its limitations, the current study did result in interesting findings that future studies should explore the subject matter in more detail. First of all, a large ethnic difference was found in how participants perceived their ethnicity as interacting with their family communication patterns. As expected from previous findings, more East Asians viewed their ethnicity as negatively influencing the comfort level and frequency of their family communication. Our results may be due to the language and cultural barriers between parents and children, because 96% of parents of our East Asian participants were born outside of the U.S., while almost half of the participants were born and raised in the U.S. It is still unclear, however, if this discrepancy is the most important factor that influences family communication.

Therefore, future studies should study the family communication patterns and styles between parents and children who are born and raised in the U.S., and do not have a large language or cultural barrier. If the same difference is found in the family communication between East Asians and European/Caucasians, the East Asian students' negative perception of their family communication cannot solely be attributed to the language and cultural barrier.

Another large ethnic difference was found in the perception of personal responsibility and family responsibility. While no European/Caucasians equated personal responsibility to family responsibility, several East Asians considered fulfilling certain personal responsibilities, such as taking care of themselves and doing well at school, as fulfilling personal and family responsibility at the same time. Possible explanations are provided in the discussion, but more studies should be done on this distinction to accurately find out why this difference exists between the two ethnic groups.

Across various domains of social support, participants did not show large ethnic or birth order differences in with whom they would rely on or share with. Participants with siblings across birth status and ethnicities were more likely to rely on or share with their parents or friends/non-family individuals rather than their sibling(s). One ethnic difference observed was that more later-borns stated that they would share their school and academic achievements with their older sibling(s), and this birth status difference was more distinct in the East Asian sample. Although a possible explanation is provided earlier in the discussion, the reason is not clear since participants were not asked to state the reasons. Studies that investigate not only with whom participants would rely on and share with the most, but also the reasons that they would with certain people, will provide a deeper understanding of interactions of siblings and only-children.

The effect of the stereotypes of the "model minority" on one's achievement drive as well as actual achievement was another interesting phenomenon that emerged in East Asian participant responses. Since previous studies only investigated the effect of these stereotypes on actual achievement, whereas the current study only investigated their effect on achievement drive, future studies should study their effect on both variables within the same population. They may be able to explain how similarly or differently the stereotypes of the "model minority" affect one's drive versus achievement and find possible connections between the three variables. Another important distinction made was that some participants perceived the stereotypes as imposed by people of other ethnicities, while some perceived them as imposed within the Asian community. Depending on how one perceives these stereotypes, it is possible that the "model minority" stereotypes affect one's achievement and academic drive differently.

Overall, birth status patterns were not necessarily more distinct in the East Asian sample. In many areas such as achievement drive, communication, and social support, birth status patterns were either absent or similar across the two ethnic groups. In some domains, such as self-confidence, even more European/Caucasians than East Asians viewed their birth status as influencing the level of their self-confidence negatively. From these findings, future studies are urged to further investigate why birth status patterns are not largely different between the two ethnic groups, despite the differences in family values suggested from previous studies. It is suggested as a possible explanation that East Asian college students become more distant from their traditional family values as they physically move away from them to go to college. However, further studies should explore if this ethnic similarity is also present in East Asians of other age groups that still live with their family. If not only East Asian college students but also

East Asian Americans in general show this similarity with European/Caucasians, physical distance from family cannot serve as an only explanation.

In summary, the current exploratory study offers a glimpse into the ways in which perceptions of birth order, sibling relationships, family communications, and personal characteristics are similar and different between East Asian American and European/Caucasian American college students. More extensive research into this comparison using mixed methods approaches will provide important next steps for future investigations.

References

Alexander, K. (1990). Judith Blake: “Family Size and Achievement.” *Contemporary Sociology*, *19*(3), 343.

AVIOLI, P. (1989). THE SOCIALSUPPORTFUNCTIONSSIBLINGSIN LATERLIFE- A THEORETICAL. *AMERICAN BEHAVIORAL SCIENTIST*, *33*(1), 45–57.

Blake, J. (1981). The OnlyChildin America: PrejudiceversusPerformance. *Population and Development Review*, *7*(1), 43–54.

Burke, M., Stoneman, Z., & Brody, G. H. (1987). Child Temperaments, Maternal Differential Behavior, and Sibling Relationships. *Developmental Psychology*, *23*(3), 354–362.

Condron, D. J., & Downey, D. B. (2004). PlayingWellh Othersin Kindergarten: The Benefitof Siblingsat Home. *Journal of Marriage and Family*, *66*(2), 333–350.

Fuligni, A. J. (2007). Family Obligation, College Enrollment, and Emerging Adulthood in Asian and Latin American Families. *Child Development Perspectives*, *1*(2), 96–100.

Fuligni, A. J., & Tseng, V. (2000). Parent‐AdolescentLanguageUseand RelationshipsAmong ImmigrantFamilies With EastAsian, Filipino, and Latin American Backgrounds. *Journal of Marriage and Family*, *62*(2), 465–476.

Goyette, K., & Xie, Y. (1999). Educational Expectations of Asian American Youths: Determinants and Ethnic Differences. *Sociology of Education*, *72*(1), 22–36.

Halgin, R., & Wong, F. (2006). The “modelminority”: Baneor blessingfor AsianAmericans? *JOURNAL OF MULTICULTURAL COUNSELING AND DEVELOPMENT*, *34*(1), 38–49.

Huang, W.-J. (2005). An Asianperspectiveon relationshipand marriageeducation. *Family process*, *44*(2), 161–173.

Kao, G. (2004). Parental Influences on the Educational Outcomes of Immigrant Youth1. *The*

International Migration Review, *38*(2), 427.

Lam, M., Fuligni, A. J., & Tseng, V. (1999). Attitudes toward Family Obligationsamong AmericanAdolescentswith Asian, LatinAmerican, and EuropeanBackgrounds. *Child Development*, *70*(4), 1030–1044.

Lee, R. M., & Liu, H.-T. T. (2001). CopingWith IntergenerationalFamilyConflict. *Journal of Counseling Psychology*, *48*(4), 410–419.

McElwain, N. L., Volling, B. L., & Miller, A. L. (2002). Emotion Regulation in Context: The Jealousy Complex between Young Siblings and Its Relations with Child and Family Characteristics. *Child Development*, *73*(2), 581–600.

McKenry, P. C., McKelvey, M. W., & Julian, T. W. (1994). CulturalVariationsin Parenting: Perceptionsof Caucasian, AfricanAmerican, Hispanic, and Asian-American Parents. *Family Relations*, *43*(1), 30–37.

Parker, M., & Bergmark, R. E. (2005). FILIAL PIETY: Practice and Discourse in Contemporary East Asia. *Journal of Comparative Family Studies*, *36*(4), 663.

Paulson, S. E., & Sputa, C. L. (1995). Birthorderfamilysize: influenceson adolescents' achievementand relatedparentingbehaviors. *Psychological reports*, *76*(1), 43–51.

Pedersen, S., & Fuligni, A. J. (2002). FamilyObligationthe Transitionto YoungAdulthood. *Developmental Psychology*, *38*(5), 856–868.

Polit, D. F., & Falbo, T. (1986). Quantitative Review the OnlyChildLiterature. *Psychological Bulletin*, *100*(2), 176–189.

Pollack, E. G. (2002). The Childhood We Have Lost: When Siblings Were Caregivers, 1900-1970. *Journal of Social History*, *36*(1), 31–61.

Reich, A. E., Volkom, M. V., & Machiz, C. (2011). SiblingRelationshipsthe CollegeYears: Do

Gender, BirthOrder, and AgeSpacingMatter? *North American Journal of Psychology*, *13*(1), 35.

Riggio, H. R. (2000). MeasuringAttitudestowardAdultSiblingRelationships: The LifespanSibling Relationship. *Journal of Social and Personal Relationships*, *17*(6), 707–728.

Schneider, B., & Lee, Y. (1990). A Model for Academic Success: The School and Home Environment of East Asian Students. *Anthropology and Education Quarterly*, *21*(4), 358–77.

Smith, T. E. (1993). Growthin AcademicAchievementand TeachingYoungerSiblings. *Social Psychology Quarterly*, *56*(1), 77–85.

Sung, H. Y. (2010). The Influence of Culture on Parenting Practices of East Asian Families and Emotional Intelligence of Older Adolescents: A Qualitative Study. *School Psychology International*, *31*(2), 199–214.

Teti, D. M., & Ablard, K. E. (1989). Security of Attachment and Infant-Sibling Relationships: A Laboratory Study. *Child Development*, *60*(6), 1519–1528.

Trent, K., & Spitze, G. (2006). GenderDifferencesin AdultSiblingRelationsin TwoChildFamilies. *Journal of Marriage and Family*, *68*(4), 977–992.

Trent, K., & Spitze, G. (2011). Growing UpWithoutSiblingsand AdultSociabilityBehaviors. *Journal of Family Issues*, *32*(9), 1178–1204.

Volling, B. L. (2005). The transition to siblinghood: a developmental ecological systems perspective and directions for future research. *Journal of Family Psychology*, Sibling Relationship Contributions to Individual and Family Well-Being, *19*(4), 542–549.

Wakabayashi, M., & Kureishi, W. (2010). Whydofirstbornchildrenlivetogetherwith parents? *Japan & The World Economy*, *22*(3), 159–172.

You, H.-K., & Jeong, Y.-J. (2008). Differenthistoricaltrajectoriesand familydiversityamong Chinese, Japanese, and Koreans in the United States. *Journal of family history*, *33*(3), 346–356.

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Table 1

Demographic Information for 24 East Asian participants Randomly Selected for Analysis

Characteristics	No. (N=24)	%
1. Participant gender		
Male	12	50
Female	12	50
2. Participant self-identified ethnicity		
Chinese	9	37.5
Asian unspecified	4	17
Korean	2	8
Taiwanese	2	8
Chinese American	1	4
Chinese&Vietnamese	1	4
East Asian unspecified	1	4
Han Chinese	1	4
Korean American	1	4
Taiwanese American	1	4
Vietnamese	1	4
3. Participant birth place		
U.S.	11	46
Non-U.S.	13	54
4. Parent information *		
Biological	24	100
One or more step-parents	2	8
5. Parent birth place		
U.S.	1	4
Non-U.S.	23	96
6. Participant self-identified birth status		
Only-child	8	33
First-born	8	33
Later-born	8	33
7. Sibling information *	(N=16)	
Full siblings	16	100
Half siblings	0	0
Step-siblings	1	6
8. Sibling gender **		
Same as participant	6	37.5
Different from participant	10	62.5

* information was double-coded for parents & siblings (if a participant had a biological AND a step-parent, the participant was double-coded as having both "Biological" and "One or more step-parents")

** information was not double-coded even if participant had both same and different gender siblings (ex. if one sibling had different gender, participant with multiple siblings was coded under "Different from participant")

Table 2

Demographic Information for 24 European/Caucasian Participants Randomly Selected for Analysis

Characteristics	No. (N=24)	%
1. Participant gender		
Male	12	50
Female	12	50
2. Participant self-identified ethnicity		
White/Caucasian	18	75
Multiple European heritages specified	2	8
Bosnian	1	4
Jewish	1	4
Multiple European heritages unspecified	1	4
Turkish	1	4
3. Participant birth place		
U.S.	22	92
Non-U.S.	2	8
4. Parent information *		
Biological	24	100
One or more step-parents	3	12.5
5. Parent birth place *		
U.S.	22	92
Non-U.S.	3	12.5
6. Participant self-identified birth status		
Only-child	8	33
First-born	8	33
Later-born	8	33
7. Sibling information *	(N=16)	
Full siblings	15	94
Half siblings	3	19
Step-siblings	1	6
8. Sibling gender **		
Same as participant	8	50
Different from participant	8	50

* information was double-coded for parents & siblings (if a participant had a biological AND a step-parent, the participant was double-coded as having both "Biological" and "One or more step-parents")

** information was not double-coded even if participant had both same and different gender siblings (ex. if one sibling had different gender, participant with multiple siblings was coded under "Different from participant")

Table 3

Number of Interviewee Endorsements by Questions on Birth Status

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
1. How has your birth order affected the level of your achievement drive?						
Siblings affected it	7	6	0	6	5	0
Parents affected it	5	2	4	1	0	2
No effect-is self-motivated	2	3	4	2	5	7
Parents didn't affect it	1	1	0	4	2	0
2. How has your birth order affected the level of your self-confidence?						
Generally affected*	4	5	3	7	8	7
Positively affected	*4*	*4*	*3*	*6*	*8*	*2*
Negatively affected	*0*	*1*	*0*	*1*	*2*	*6*
No effect	3	2	4	1	2	1
3. How has being your birth order affected your sense of family responsibility?						
For siblings	6	1	1	5	4	0
For parents	2	2	4	1	1	3
For self	1	0	1	2	2	1
Feel less responsibility in general	0	3	0	0	4	3
No effect	1	1	1	1	0	2
4. Have you ever wished to be another birth order?						
No	6	6	4	5	7	1
Yes, in general	0	1	2	1	0	5
Yes, now	0	0	2	0	0	0
Yes, but in the past	2	1	1	2	1	2

*Aggregated node: subsequent italicized headings indicate sub-nodes. All responses under italicized nodes add up to aggregated node. If responses do not add up, double-coding occurred.

Table 4

Number of Interviewee Endorsements by Questions on Impact of Ethnicity

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
1. How has your ethnicity affected the level of your achievement drive?						
Generally affected	7	5	2	2	3	1
No effect	1	3	5	4	5	5
Don't know	0	0	0	2	1	2
2. How has your ethnicity affected the level of your self-confidence?						
Generally affected*	5	5	5	3	1	4
Positively affected	*3*	*1*	*1*	*2*	*1*	*3*
Negatively affected	*2*	*4*	*4*	*1*	*0*	*1*
No effect	3	3	3	5	5	4
3. Ethnicity has affected your sense of family responsibility						
For siblings	2	2	0	0	0	0
For parents	1	0	3	0	0	0
For family	2	3	3	0	0	0
No effect	1	2	3	4	5	5
Don't know	1	0	0	2	2	1
4. How has your ethnicity affected your family's communicational styles and patterns?						
With siblings	1	2	0	1	1	0
With parents	3	5	5	1	1	3
No effect	4	1	3	5	5	5
Don't know	0	0	0	2	2	0

*Aggregated node: subsequent italicized headings indicate sub-nodes. All responses under italicized nodes add up to aggregated node. If responses do not add up, double-coding occurred.

Table 5

Number of Interviewee Endorsements by Questions on Sense of Responsibility

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
1. Siblings: To what degree do you feel responsible for your sibling(s)?*	8	7	0	8	8	0
Very	*4*	*1*	*0*	*2*	*0*	*0*
Somewhat	*2*	*4*	*0*	*4*	*4*	*0*
Not at all	*2*	*2*	*0*	*2*	*4*	*0*
2. Who do you feel most responsible?						
Self	3	1	1	0	0	0
Parents	1	1	4	2	2	2
Friends/non-family	4	4	3	3	3	2
Extended family	1	0	1	2	1	1
No one	2	1	3	3	3	3
3. How much have you felt responsible for your family throughout your life?						
A lot	2	2	0	3	2	2
Somewhat	3	2	4	4	2	2
Not at all	3	3	4	1	4	4

*Aggregated node: subsequent italicized headings indicate sub-nodes. All responses under italicized nodes add up to aggregated node. If responses do not add up, double-coding occurred.

Table 6

Number of Interviewee Endorsements by Questions on Sibling Communication Comfort

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
1. How comfortable do you feel communicating with siblings?						
Comfortable	5	5	1	8	6	0
Somewhat	1	2	0	0	2	0
Not at all	2	1	0	0	0	0
2. Which topics that you would rather discuss with your sibling(s) than parents?						
Academic, Career	2	1	0	1	0	0
Romantic or Social	3	4	0	3	4	0
Family issues	3	1	0	4	4	0
None	3	3	1	1	1	0
3. How often do you communicate with your siblings?						
More than 2 times a week	4	5	0	3	5	0
Every week	3	3	0	3	0	0
Every other week or less	0	2	1	2	2	0
4. Do you prefer to communicate with one specific sibling? (Pt's with more than one sibling)						
Based on age*	2	0	0	5	1	0
closest in age	*2*	*0*	*0*	*4*	*1*	*0*
farthest in age	*0*	*0*	*0*	*1*	*0*	*0*
Based on personality or hobbies	0	0	0	0	3	0

*Aggregated node: subsequent italicized headings indicate sub-nodes. All responses under italicized nodes add up to aggregated node. If responses do not add up, double-coding occurred.

Table 7

Number of Interviewee Endorsements by Questions on Parent Communication Comfort

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
1. How comfortable do you feel communicating with your parents?						
Comfortable	4	5	7	6	7	6
Somewhat	2	2	2	3	1	3
Varies by parent	1	0	3	1	2	1
Not at all	3	1	2	0	1	0
2. What kinds of problems do you feel comfortable discussing with your parents?						
Academic, Career, Financial	6	8	8	8	8	5
Romantic or Social	5	3	4	8	3	4
Family issues	1	2	0	2	3	3
Everything	1	4	3	4	0	3
3. What kinds of problems do you not feel comfortable discussing with your parents?						
Academic, Career, Financial	2	1	1	0	0	0
Romantic or Social	6	7	7	5	5	4
Emotional distress or other negatives	3	0	1	1	0	0
ETC	1	1	0	1	2	1
None	0	0	0	1	2	2
4. How often do you communicate with your parents?						
More than 2 times a week	3	5	5	6	5	6
Every week	3	3	2	2	3	1
Every other week or less	2	0	2	0	0	0

Table 8

Number of Interviewee Endorsements by Questions on Sibling Social Support

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
1. Current level of satisfaction with social support in relation to siblings						
Satisfied	2	6	3	7	8	2
Not satisfied	6	2	4	1	0	5
2. In what domains are you least likely to rely on your sibling(s)?						
Academic, Career, Financial	5	1	1	4	5	0
Romantic or Social	5	6	1	5	3	0
Emotional distress or other negatives	2	0	1	1	1	0
Everything	1	0	1	0	0	0
3. In what domains are you most likely to rely on your sibling(s)?						
Academic, Career, Financial	2	4	0	0	3	0
Romantic or Social	4	1	0	3	3	0
Family issues	2	2	0	4	4	0
Positives	0	0	0	2	1	0

Table 9

Number of Interviewee Endorsements by Questions on Social Support for Negative Events

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
Who would you share these negative events with the most?						
1. Emotional distress						
Siblings	1	1	1	1	0	0
Parents	2	4	4	6	7	6
Friends & non-family	5	5	6	3	3	2
2. Conflicts with parents						
Siblings	3	5	0	6	3	0
Parents	1	1	1	2	1	2
Extended family	0	0	2	1	0	0
Friends & non-family	4	4	3	4	3	6
Myself	0	1	2	0	0	0
3. Problems in romantic relationships						
Siblings	1	2	0	0	2	0
Parents	1	3	4	4	2	2
Friends & non-family	5	6	6	4	6	5
No One	0	0	1	1	0	0
4. Problems with friends						
Siblings	2	2	0	1	3	0
Parents	2	2	2	4	3	5
Friends & non-family	3	4	6	3	2	3
No one	0	0	1	1	0	2
5. School and academic problems						
Siblings	1	1	0	0	1	0
Parents	3	4	4	7	7	6
Friends & non-family	5	4	5	3	1	2
6. Career concerns						
Siblings	2	2	1	1	1	0
Parents	4	6	5	7	6	7
Extended family	0	0	1	1	1	2
Friends & non-family	3	6	6	2	2	2
7. Financial problems						
Siblings	1	2	0	0	0	0
Parents	6	6	6	7	6	6
Friends & non-family	1	1	1	1	0	0
No One	0	0	1	0	1	1
8. Work problems						
Siblings	2	2	0	1	0	0
Parents	3	5	5	6	6	5
Friends & non-family	3	5	3	3	3	1
I don't work	3	1	2	1	0	1

Table 10

Number of Interviewee Endorsements by Questions on Social Support for Positive Events

	East Asian first-borns	East Asian later-borns	East Asian only-children	European/ Caucasian first-borns	European/ Caucasian later-borns	European/ Caucasian only-children
Who would you share these positive events with the most?						
1. Happy occasions in family						
Siblings	4	3	2	5	4	0
Parents	7	7	6	7	7	8
Extended family	2	1	2	5	2	1
Friends & non-family	4	7	5	3	2	2
Everyone	0	1	1	3	1	0
2. Happy occasions in romantic relationships						
Siblings	2	2	1	4	1	0
Parents	3	2	3	5	2	2
Friends & non-family	6	7	7	4	7	5
I never had romantic relationships	0	0	0	1	1	1
3. Happy occasions in social relationships						
Siblings	2	2	2	2	1	0
Parents	3	4	5	5	3	4
Extended family	0	1	3	1	0	0
Friends & non-family	6	7	7	6	6	4
Everyone	0	1	1	1	0	0
4. School and academic achievements						
Siblings	1	4	2	3	2	0
Parents	5	6	8	8	8	7
Extended family	0	0	2	2	0	2
Friends & non-family	1	1	3	2	3	1
Myself	2	1	0	0	0	0
5. Promotion and success in career						
Siblings	1	3	2	6	2	0
Parents	6	7	7	8	7	8
Extended family	0	1	1	3	0	1
Friends & non-family	2	5	4	4	2	1
Everyone	0	0	1	2	0	0

Appendix

Interview Questions

<table>
<tr><td colspan="3">1. Personal Life History
When and where were you born?
How many years have you lived in the U.S.?
With which ethnicity(ies) do you identify yourself with the most? (Your ethnicity may include your racial and/or cultural background.)</td></tr>
<tr><td colspan="3">2. Family History
How many people in total did you live with while you were growing up?
How many parents have raised you? Are they your biological or step-parent(s)?
Where were your parent(s) born? How many years have your parents lived in the U.S.? With which ethnicity(ies) do you think they identify themselves the most?
How many siblings did you grow up with? Are they your full-/half-/step-sibling(s)? How old are your sibling(s)? Are they brothers or sisters?
Where were your sibling(s) born? How many years have your siblings lived in the U.S.? With which ethnicity(ies) do you think they identify themselves the most?
How many extended family members lived in your household (grandparents, uncles, aunts, cousins, etc.) while growing up?
How many years have you lived with each of your family members in the same household?</td></tr>
<tr><td colspan="3">3. Achievement Drive</td></tr>
<tr><td>All</td><td>Siblings</td><td>Only-children</td></tr>
<tr><td>Do you think that your parents expect you to be high-achieving? Why or why not?</td><td>Do you think that your parents expect your sibling(s) to be highly achieving? Does their parenting style reflect that? If so, how? Do your mother and father differ in their achievement expectations for you? What about your siblings? If so, how do they differ?</td><td rowspan="4">In what ways has being an only-child affected the level of your achievement-drive?</td></tr>
<tr><td>Do your mother and father differ in their achievement expectations for you? If so, how do they differ?</td><td>In what ways has having a sibling(s) in general affected the level of your achievement-drive? In what ways has being the child of your specific birth order affected the level of your achievement-drive?</td></tr>
<tr><td>To what degree has your gender affected the level of your achievement-drive?</td><td>Do you feel especially competitive with any specific sibling? If ‘yes’, please expand.</td></tr>
<tr><td>To what degree has your</td><td></td></tr>
</table>

ethnicity affected the level of your achievement-drive? Reflecting on your answers to the previous questions, how achievement-driven do you think you are?		
4. Social Support		
All	Siblings	Only-children
Of your mother, father, siblings, extended family members, and friends, with whom do you share the most when you experience each of the following types of negative events:	For which domains of life are you LEAST likely to rely on your sibling(s)? For which domains of life are you MOST likely to rely on your sibling(s)? Do you wish that your sibling(s) were more reliable than you feel they are now? To what degree do you think that your sibling(s) rely on you? For what kinds of support are they most reliant on you?	Based on your day-to-day experiences/observations of people who have siblings (parents, extended family members, friends, etc.), do you think that having a sibling would provide you with a greater feeling of having someone to rely on?
emotional distress conflicts with parent(s) school/academic problems problems with friends problems in romantic relationships career concerns work problems financial problems Of your mother, father, siblings, extended family members, and friends, with whom do you share the most when you experience each of the following types of positive events: happy occasions in family school/academic achievements happy occasions in social relationships happy occasions in romantic relationships		

promotion/success in career To what degree has your gender affected the ways that you interact with those who you rely on and those that rely on you? To what degree has your ethnicity and culture affected the ways that you interact with those who you rely on and those that rely on you? Overall, how satisfied are you with the level of social support you have?		
5. Responsibility		
All	Siblings	Only-children
Overall, how much family responsibility do you think you have carried in your life? Please explain. Aside from your siblings, is there anyone else that you feel responsible for? Who and in what way?	To what degree do you feel responsible for any of your sibling(s) and their actions? Which sibling(s) do you feel most responsible for? Do you think that any of your sibling(s) feel responsible for you and your actions? Which sibling(s) do you think feel(s) most responsible for you?	
To what degree has your gender affected the ways that you interact with those whom you feel responsible for? To what degree has your ethnicity and culture affected the ways that you interact with those whom you feel responsible for? To what degree has being the child of your birth order specifically affected the level of your sense of responsibility in the family?		
6. Self-Confidence		
All	Siblings	Only-children

Overall, to what degree do you consider yourself to be a confident person? Do your mother and father differ in their expectations of your self-confidence? If yes, how so? Does their parenting style reflect that? If yes, how? To what degree has your gender affected the level of your self-confidence? To what degree has your ethnicity affected the level of your self-confidence?	To what degree do you think that your parents expect your sibling(s) to be self-confident? Does their parenting style reflect that? If so, how? Do your mother and father differ in their expectations of your self-confidence? If yes, how? What about your siblings? Please explain.	To what degree has being an only-child affected the level of your self-confidence?
7. Family Communication		
All	Siblings	Only-children
In general, how comfortable do you feel about communicating with your parents? What is the main mode of communication between you and your parents (face-to-face, telephone, e-mail, online-chatting, social-networking website, etc.)? About how often do you communicate? About what kinds of problems (family relationships, social relationships, romantic relationships, academics, careers, etc.) would you feel comfortable discussing with your parents? About what kinds would you not? If so, who would you rather	In general, how comfortable do you feel communicating with your sibling(s)? What is the main mode of communication between you and your sibling(s)? About how often do you communicate with him/her/ them? Which of your siblings would you say you have had the strongest communication? The weakest? Or, all equal?	

discuss them with? To what degree has your gender affected the communicational styles/patterns with your parents? To what degree have the genders of your parents and your sibling(s) affected your communications with each of them in your family? To what degree has the ethnicities of you and your parents and your sibling(s) affected the communicational styles/patterns within your family members? Please explain.	Are there problems that you feel more comfortable discussing about with your sibling(s) than your parents? If 'yes', please explain which kinds of problems. What makes it easier for you to discuss these with your sibling(s) than your parents?	
8. Parenting Styles		
All	Siblings	Only-children
	Based on your day-to-day experiences with/observations of people who only one child, how has your mother's parenting style been similar/different from parenting styles of parents who have only one child? How about your father's? How has your mother's parenting style toward you been similar/different from their parenting style toward your sibling(s)? How about your father's? How often has your mother compared you with any of your sibling(s)? In what types of domains are they most likely to make comparisons (e.g., personal qualities, achievements, appearance,	Based on your day-to-day experiences with/observations of people who have siblings, how do you think your mother's parenting style has been similar/different from parenting styles of parents who have more than one child? How about your father's?

	etc.)? When comparisons are made, how do you respond? How about your father? Is there one sibling you are most often compared to? If so, which one? To what degree have the genders of you, your parents, and your sibling(s) affected the ways that your parents compared you to your sibling(s)? To what degree have the ethnicities of you, your parents, and your sibling(s) affected the ways that your parents compared you with your sibling(s)? Which parent are you most likely to go to when you have a conflict with your sibling(s)? (mother vs. father vs. both equally) Does the parent you go to differ depending on which sibling you are dealing with? How so?	
9. Other Birth Status Reflections		
All	Siblings	Only-children
Reflecting on previous questions, which of the two, birth order or gender, do you think has influenced your personality and family relationship more? Please explain. Is there anything else you would like to share about your family experiences?	Have you ever heard of stereotypes that describe children of your specific birth order of your gender and ethnicity? If so, what are they? Were there times when you acted in order to prove/disprove the stereotypes? To what degree has having a sibling(s) affected your life in general? How might your personality be similar/different from personality of those who are only-children in general? Have you ever wished to be an only-child? What are some positive	Have you ever heard of stereotypes that describe only-children of your gender and ethnicity? If so, what are they? Were there times when you acted in order to prove/disprove the stereotypes? To what degree has being an only-child affected your life in general? How do you think your personality is likely to be similar/different from personality of those who have siblings in general? Have you ever wished to have siblings? What are some positive

	aspects of having sibling(s)? What are some positive aspects of being a child of your specific birth order? What are some positive aspects of being a child of your specific birth order and gender? What are some positive aspects of being a child of your specific birth order and ethnicity?	aspects of being an only-child in general? What are some positive aspects of being an only-child of your gender? What are some positive aspects of being an only-child of your ethnicity?