Birth Order and Marriage: Examining Homogamy, Gender, and Remarriage

Leah B. Manning

Abstract

The relation between birth order and marriage was explored by surveying 1,595 individuals about the birth-order status of themselves and their spouse(s). Homogamy was detected only when birth order was a categorical variable that included only-born individuals. Women were more likely to have married oldest- and middle-born men, and less likely to have married only-born men. Men marrying women had the inverse pattern. People were likely to have remarried individuals of the same birth order repeatedly, especially only-borns. Small effect sizes indicated that, with the exception of only-born individuals, birth order was not a very good predictor of romantic affiliation. Future research on birth order and romantic affiliation might benefit from exploring the romantic qualities of only-born individuals.

Keywords: birth order, gender, homogamy, marriage, remarriage

The influence of birth order on later-life outcomes is one of the oldest and most well-researched topics in psychology. Studies have explored how birth order is related to personality qualities and lifestyle choices, such as rebelliousness, academic success, and social orientation (for a review, see Eckstein et al., 2010). One area of study has been how birth order influences individuals' preferences in other people, such as in friendships and romance. Stewart and Stewart's (1995) review of the historical trends in birth-order research did not list affiliative preference as among the more popularly researched birth-order topics. Even so, theories about how birth order is related to affiliative preference have been proposed and tested since the late 1950s.

Walter Toman (1959) formulated the duplication theorem, proposing that more successful marriages should be composed of couples with complementary birth-order statuses. The theory posited that individuals unconsciously re-create family dynamics that are familiar to them from childhood. Toman and Gray (1961) found support for the theory by comparing the birth-order status of "disturbed" couples, defined as having a child who was regularly being seen for psychotherapy, and "normal" couples who were the parents of college students. Their logic was that the children in psychotherapy would have come from less harmonious households in which the

The Journal of Individual Psychology, Vol. 76, No. 3, Fall 2020

Editorial office located in the College of Arts and Sciences at Lynn University.
Published for the North American Society of Adlerian Psychology.

parents did not have complementary birth-order statuses. Subsequent research using other methodologies both supported (Mendelsohn, Linden, Gruen, & Curran, 1974) and refuted the duplication theorem (Birtchnell & Mayhew, 1977; Levinger & Sonnheim, 1965).

Alternatively, William Altus (1970) proposed that people should marry those who have the same birth-order status as themselves, which he called *homogamy*. In Altus's (1970) study, college students reported on the birth-order statuses of their parents. A pattern of homogamy was observed, but some other nonhomogamous patterns also emerged. There were frequent occurrences of only-child males married to first-born females, and only-born females married to youngest males. Altus concluded that homogamy was likely, but he acknowledged that his sample was not representative of people who did not have children attending college. In a similar study, Ward, Castro, and Wilcox (1974) observed homogamy in a survey of college faculty members. Touhey (1971) acquired a more randomized sample by approaching pedestrians on a street corner and did not find a pattern in the birth orders of participants and their spouses.

Later research on birth order and close relationships extended beyond marriages and did not specifically test the theories of duplication or homogamy. Rim (1981) explored how birth order was related to the use of influence and power dynamics in marriages. Michalski and Shackelford (2002) studied how birth order was related to mating strategies, such as individuals' inclination toward long- or short-term relationships. Salmon (2003) investigated how birth order was related to attitudes in relationships, such as helping family members and cheating on romantic partners.

Most recently, Hartshorne, Salem-Hartshorne, and Hartshorne (2009) aimed to address the controversy and inconclusiveness of research on birth order in long-term relationships. They conducted two studies surveying a large number of people about the birth orders of themselves, their best friends, and their parents. The first study surveyed college students; the second was a larger web-based survey. In both studies, significant homogamy was found for both participant–friend and mother–father pairings. Hartshorne et al. (2009) concluded that shared birth order is a reliable determinant for affiliative preference.

The current study has two primary purposes. The first is to replicate previous research on homogamy, most specifically, the findings of Hartshorne et al. (2009). Although their sample was one of the most heterogeneous studies of its kind, getting information about romantic couples from their children limits the sample to couples who have had children. Additionally, more detailed information about married couples can be obtained by surveying members of the couple themselves. One such detail of interest is the reason they married. If shared birth order is truly due to affiliative

preference, then homogamy may be more or less likely when accounting for whether or not couples married for love. Therefore, the first two hypotheses for this study are as follows: (a) People are expected to be more likely to have married others with the same birth-order status as themselves, and (b) homogamy is expected to be more common among couples who married for love. Because this study is also replicating Altus's (1970) initial study on homogamy, an additional hypothesis is that (c) gender will play a role in predicting certain birth-order combinations (e.g., only-born females marrying youngest males).

The second purpose of this study is to test a yet-unexplored possibility: patterns in multiple marriages. Even in the absence of homogamy, an affiliative preference related to birth order may still be observable. For example, a person who married a firstborn once may be more likely to marry another firstborn. Therefore, the fourth hypothesis is that (d) people who have been married multiple times will be likely to repeatedly marry others of a particular birth-order status.

Methods

Participants were recruited using Amazon's Mechanical Turk (MTurk), an online marketplace used to solicit participants to complete tasks. MTurk is a popular source of survey data for social scientists (Buhrmeister, Kwang, & Gosling, 2011; Burnham, Le, & Piedmont, 2018). For this study, MTurk respondents were limited to people who lived in the United States and had a task approval rating of greater than 95%, meaning that they had a history of having their work approved by task requesters. The task description was explicit in wanting only respondents who had been married at least once, although this did not prevent never-married people from responding. The survey had three parts: demographic information, information about siblings, and information about marriages. Respondents were paid $0.25 for their participation. A total of 2,000 surveys were collected.

Responses were initially excluded if participants reported never being married, submitted the questionnaire in less than 2 minutes, failed to give acceptable answers on attention checks, or completed the survey more than once. Surveys were then also excluded if the sibling information for participants or their spouse(s) was inconsistent or contradictory (e.g., they indicated that they were an only child and then also provided details about siblings). In cases where participants were married multiple times and inconsistencies were found for one spouse and not another, only the spouse for which consistent information was provided was included. The remaining sample for this study was 1,595 respondents and a total of 1,874 marriages.

Table 1
Sample Demographic Information

	N	%
Gender identity		
Female	1091	68.4
Male	490	30.7
Other	5	.3
No answer	9	.5
Ethnicity		
American Indian or Alaskan Native	20	1.3
Asian	87	5.5
Black or African American	67	4.2
Hispanic or Latinx	81	5.1
Multiethnic	41	2.6
Native Hawaiian or Pacific Islander	4	.3
White	1289	80.8
No answer	6	.4
Sexual Orientation		
Heterosexual	1435	90.0
Homosexual	30	1.9
Bisexual	106	6.6
Other	13	.8
No answer	11	.7
Education		
High school diploma or less	155	9.7
Some college or an associate's degree	532	33.3
Bachelor's degree	615	38.6
Master's degree	233	14.6
PhD or other doctoral degree	53	3.3
No answer	7	.4
Annual household income		
≤$40,000	426	26.8
$41,000–$80,000	609	38.2
$81,000–$120,000	365	22.9
$121,000–$160,000	111	6.9
≥$161,000	82	5.1
No answer	2	.1

The average time for survey completion was 6.12 minutes (range = 2–14.93 minutes). Time for completion was positively skewed (1.03), indicating that most people's completion time was closer to the median time of 5.50 minutes. A 15-minute time restriction on the survey unintentionally excluded people whose completion time exceeded that limit. Only six people contacted the principle investigator reporting that they were unable to complete the survey. The resulting sample was predominantly White (80.8%) and female (68.4%). The average age of the participants was 40 years (range = 19–83 years). Age was positively skewed (.67), and the median age was 37 years. Table 1 provides full demographic information regarding the sample's gender, ethnicity, sexual orientation, education, and annual household income.

In the survey section about siblings, participants were asked to think about the household they grew up in. Instructions were to include half, step, and adoptive siblings, as long as they grew up together. They were to exclude siblings who were out of the house before their childhood, were born after they left home, grew up in a different household, or had passed away. For siblings present for some portion of their childhood, participants were free to include or exclude siblings according to whether they felt that person affected their birth-order experience. Ultimately, each participant had the final say on whom to include in their report. Participants were also asked to give a brief one-sentence description of their household (e.g., "I grew up with one older brother") that could be used for comparison and clarification, if needed. Participants' sibling-order status (SOS) were as follows: oldest (N = 628, 39.4%), middle (N = 356, 22.3%), youngest (N = 478, 30.0%), only (N = 106, 6.6%), or a twin (N = 27, 1.7%). Twins were instructed to indicate themselves as such regardless of other siblings.

The survey section about marriages asked participants to report on each marriage separately. Participants reported on their former and current spouse SOS (N = 1,812; 30.9% oldest, 23.0% middle, 29.7% youngest, 14.9% only, and 1.5% twins). Marriages in which at least one member of the couple was a twin were excluded from subsequent analyses because of their small number. Participants also reported on the primary reason they married their spouse(s). The majority of marriages were reported as because they were in love (83.8%); the rest were due to pregnancy (5.1%), financial necessity (3.6%), social pressure (4.5%), and other reasons (3.0%).

Results

Analyses were conducted to test the hypotheses that (a) participants would be more likely to have married others of the same birth order as themselves, (b) the strongest relation between participant and spouse birth

order would be found in couples who married out of love, (c) gender would contribute to predicting certain birth-order combinations, and (d) people who had married more than once were expected to have repeatedly married others of a particular birth-order status.

Sibling-Order Homogamy

The first hypothesis was that people would be more likely to have married others with the same birth-order status as themselves. This hypothesis was tested first using a categorical grouping of birth order and then using a continuous strategy.

Sibling order as a categorical variable. The categorical grouping of SOS included four levels: oldest, middle, youngest, and only. A hierarchical log-linear analysis was used to determine whether and how participant SOS (PSOS) was associated with spouse SOS (SSOS), controlling for whether or not the participant had been married multiple times (MM; yes or no). Using backward stepwise elimination, the resulting model included all of the main effects and one two-way effect for PSOS × SSOS. The nonsignificance of the goodness-of-fit test indicated that the resulting model was a good fit for the data, Pearson $\chi^2(15, N = 1{,}812) = 16.45$, $p = .35$.

The main effect of MM reflects the differing proportions of participants represented in one (73.3%) or multiple marriages (26.7%). A chi-square analysis was used to examine the interaction between PSOS and SSOS. Effect sizes for this and subsequent chi-square analyses were interpreted utilizing Cohen's (1988) guidelines for small, medium, and large effects corresponding with the appropriate degrees of freedom (where *df* = the lesser of either rows or columns minus 1). The relation was significant, $\chi^2(9, N = 1{,}814) =$

Table 2
Observed and Expected Counts for Participant and Spouse Birth-Order Statuses

Participant Birth Order	Spouse Birth Order			
	Oldest	Middle	Youngest	Only
Oldest	240 (231.0)	155 (172.6)	242 (220.4)	98 (111.0)
Middle	137 (130.4)	111 (97.5)	107 (124.5)	60 (62.7)
Youngest	162 (171.9)	139 (128.5)	162 (164.0)	84 (82.6)
Only	31 (36.8)	21 (27.5)	33 (35.1)	32 (17.7)

Note. Expected counts are in parentheses.

26.22, $p = .002$, and the effect was small (Cramer's $V = .07$). Table 2 presents the observed and expected counts of participants' and their spouses' SOS combinations.

Homogamous pairings were only slightly more common than the null expectation for oldest–oldest (observed $n = 240$, expected $n = 231$) and middle–middle marriages (observed $n = 111$, expected $n = 97.5$). The observed number of youngest–youngest marriages was very close to the null expectation (observed $n = 162$, expected $n = 164$). The observed number of only–only marriages was nearly twice the null expectation (observed $n = 32$, expected $n = 17.7$). These findings indicate that when birth order is defined categorically, homogamy in married couples' birth-order status was most likely among only-born individuals.

Sibling order as a continuous variable. A birth-order index (BOI), first used by Slater (1958, 1962; see also Hartshorne et al., 2009; Purcell, Blanchard, & Zucker, 2000) was used to create a continuous measure of sibling-order status by assigning individuals a rank relative to their siblings. The formula for the BOI is

$$\frac{m - 1}{n - 1}$$

where n is the total number of siblings and m is the individual's place in the total number of siblings. Oldest siblings are given a rank of 0 and youngest siblings a rank of 1. The sensitivity of the BOI is most beneficial for middle-born siblings, indicating whether they were one of the older or younger middle-born children. For example, the second- and third-oldest of four children would be ranked .33 and .66, respectively. A limitation of this technique is that only children cannot be ranked; therefore, marriages in which either the participant or the participant's spouse was an only child were excluded.

A bivariate correlation between participant and spouse BOI was not significant when each marriage was considered independently ($N = 1{,}451$, $r = .003$, $p = .91$). Next, an average spouse BOI was calculated for participants with multiple marriages. A multiple regression analysis was then conducted using participant BOI to predict spouse BOI, controlling for whether or not spouse BOI was an average of multiple spouses (1 = yes; 0 = no). This model was not significant, $F(2, 1{,}258) = .93$, $p = .40$. Neither participant BOI ($b = .005$, $SE = .03$, $p = .86$) nor whether more than one spouse was included in the spouse rank ($b = -.05$, $SE = .04$, $p = .18$) predicted spouse BOI. These findings indicate that homogamy was not detected when birth order is defined as a rank in reference to one's siblings. In light of the result of the categorical analysis, the lack of homogamy was likely due to the exclusion of only-born individuals. Therefore, subsequent analyses were conducted using categorical SOS only.

Homogamy When Marrying for Love

The second hypothesis was that homogamy would be more likely when couples had married for love. A hierarchical log-linear analysis was used to explore the possible relation among PSOS, SSOS, and whether or not participants reported having married for love (yes or no). Using backward stepwise elimination, the resulting model included all of the main effects and, again, the two-way effect of PSOS × SSOS. The nonsignificance of the goodness-of-fit test indicated that the resulting model was a good fit for the data, Pearson $\chi^2(15, N = 1{,}795) = 13.25$, $p = .58$. The main effect of love reflected the different proportions of marriages that were and were not due to love (yes = 83.8%). Therefore, whether or not participants married for love was not a significant predictor of homogamy.

Gender and Birth-Order Combinations

The third hypothesis of this study was that gender would be associated with certain birth-order pairings. To test this hypothesis, only marriages in which participants identified themselves and their spouse(s) as being either female or male were included. To clarify the role of gender in the interpretation of the results, only heterosexual pairings were included in the analysis. A hierarchical log-linear analysis was used to determine whether and how PSOS, SSOS, and participant's gender were associated. Using backward stepwise elimination, the resulting model included all of the main effects and two two-way effects of PSOS × SSOS and gender × SSOS. The nonsignificance of the goodness-of-fit test indicated that the resulting model was a reasonably good fit for the data, Pearson $\chi^2(12, N = 1{,}761) = 16.88$, $p = .15$.

A chi-square analysis was used to examine the interaction between gender and SSOS. The relation was significant, $\chi^2(3, N = 1{,}792) = 25.98$, $p < .001$, and the effect was small (Cramer's $V = .12$). Females were more likely to have married men who were oldest born (observed $n = 412$, expected $n = 397.5$) and middle born (observed $n = 315$, expected $n = 299.5$), and less likely to have married only-born men (observed $n = 157$, expected $n = 191.7$). Males were less likely to have married women who were oldest (observed $n = 152$, expected $n = 166.5$) and middle born (observed $n = 110$, expected $n = 125.5$), and more likely to have married only-born women (observed $n = 115$, expected $n = 80.3$). The observed number of marriages to youngest-born partners was very close to the null expectation for both genders (female: observed $n = 379$, expected $n = 374.2$; male: observed $n = 152$, expected $n = 156.8$).

These findings indicate that, for heterosexual pairings, gender does play a role in people's likelihood of having married a person of a particular SOS. However, because the three-way effect of gender × PSOS × SSOS was not significant, gender does not appear to influence the likelihood of particular birth-order combinations.

Remarriage to People of a Particular Birth-Order Status

The fourth hypothesis was that people who have been married multiple times would be likely to have repeatedly married others of a particular birth order status. Of the total 250 participants married more than once, 221 were included in this analysis because they had provided SOS data for at least two spouses, and neither of those spouses had been a twin.

A chi-square analysis was used to determine whether a relation existed between the SOS of Spouse A and Spouse B. The relation was significant, $\chi^2(9, N = 221) = 17.73$, $p = .04$, with a moderate effect (Cramer's $V = .16$). Table 3 presents the observed and expected counts of Spouses' A and B SOS combinations.

Repeated spouse SOS was more common than the null expectation for all birth-order statuses. The pattern was slightly more common than expected for marrying oldest (observed $n = 28$, expected $n = 24.7$), middle (observed $n = 15$, expected $n = 11.2$), and youngest (observed $n = 19$, expected $n = 17.5$) spouses. People who had married only-born individuals were twice more likely than expected to have married another only-born (observed $n = 11$, expected $n = 5.1$). These findings indicate that people who have been married more than once tend to remarry another person with the same SOS as the previous spouse, especially if that spouse was an only-born. However, this only-born effect in remarriage may be due to the small sample size.

In light of the previous result that only-borns were more likely to marry other only-borns, a post hoc analysis was necessary to determine whether only-born participants were driving the relation in only-born remarriages. There were too few only-born participants represented in this analysis

Table 3
Observed and Expected Counts for Spouse A and Spouse B Birth-Order Statuses

Spouse A Birth Order	Spouse B Birth Order			
	Oldest	Middle	Youngest	Only
Oldest	28 (24.7)	7 (12.5)	22 (21.2)	12 (10.6)
Middle	23 (22.2)	15 (11.2)	17 (19.1)	7 (9.5)
Youngest	21 (20.4)	13 (10.3)	19 (17.5)	4 (8.8)
Only	7 (11.8)	5 (6.0)	10 (10.2)	11 (5.1)

Note. Expected counts are in parentheses.

(n = 9 out of N = 221) to examine them as their own group. However, of those only-born participants, only two had married another only-born, and each had done so just once. Therefore, the tendency for people to remarry only-born individuals is not because those doing the remarrying are only-born themselves.

Discussion

This study explored the relation between birth order and marriage. The first part of this study examined homogamy. The expectation was that homogamy would be found and that it would be most common in couples who had married for love. The second part of this study looked for other potential patterns of birth order in marriages, specifically regarding people's gender and patterns in remarriage.

Homogamy in Birth-Order Status

The expectation was that homogamy would be found and that it would be most common in couples who had married for love. Homogamy was found for oldest-, middle-, and only-borns, although the overall effect size was small. Homogamy in birth order was most common among only children. This is consistent with Hartshorne et al.'s (2009) findings comparing participants' reports of their parents' birth orders. Hartshorne et al. (2009) suspected that the stronger effect for only–only pairings was due to the comparably smaller sample size. The current study found the same pattern with twice as many only–only marriages than were included in Hartshorne et al.'s (2009) study. Although the number of only-born participants was still small relative to the number of participants with other sibling statuses, it seems a reasonable conclusion that only-borns are indeed more likely to marry other only-borns. However, replication of this finding with a larger number of only-born participants would be necessary to increase the certainty of this conclusion.

An important factor for finding homogamy was whether or not birth order was considered a categorical or a continuous variable. Homogamy was not detected when birth order was a continuous variable. The birth-order index assigned people a rank in reference to their siblings and excluded only-born individuals from the analyses. Because only-born individuals were the most likely to be homogamous, excluding them resulted in a lack of observable homogamy.

The hypothesis regarding homogamy and love was not supported. Whether or not the couple had married for love did not contribute to couples' sibling-order combinations. This contradicts the expectation that observed homogamy is associated with affiliative preference, as couples who

married for love were expected to be more likely to be homogamous than those who married for other reasons. Another possibility is that the proportion of people in this sample who had not married for love was too small to detect any effect on the already-small effect of the relation between spouses' birth orders.

Influence of Gender and Remarriage on Birth-Order Pairings

The second part of this study examined how gender influenced sibling-order pairings, and whether or not people were likely to remarry others of a particular birth order status. Gender was found to have a significant, though small, effect on a person's likelihood of marrying someone of a particular sibling-order status. Females were more likely to marry oldest- and middle-born men; they were less likely to marry men who were only children. As Hartshorne et al. (2009) argued, any effects of birth order are likely to be grounded in differences in personality. It is possible that oldest- and middle-born men have qualities that women find attractive, such as oldest borns' achievement and motivation or middle borns' sociability (Eckstein et al., 2010). Inversely, males were less likely to marry oldest- and middle-born women; they were more likely to marry only-born women. Men might be less attracted to women with oldest- and middle-born qualities, perhaps perceiving them as more masculine.

This study failed to replicate Altus's (1970) observation that men and women of a particular birth order were more likely to marry partners of a particular birth order. Although the two-way relation of participant gender and spouse birth order was found, the three-way relation (participant gender × participant birth order × spouse birth order) necessary to replicate Altus's (1970) finding was not found.

Last, these findings indicate that people who married multiple times were likely to remarry others of a particular birth-order status. The effect was moderate, and the pattern was most prevalent for people who married only-born individuals. Additionally, this pattern was not accounted for by only-born participants preferring to marry other only-born spouses repeatedly. This suggests that people do have a predictable preference for spouses of a specific birth order even in the absence of a homogamous preference. The idea that people have a particular "type" of person to whom they are romantically attracted is not new, but apparently, it is possible to roughly map a person's romantic type onto that type's birth-order status.

Limitations and Future Research

A primary limitation of this study is the representativeness of the sample, which was predominantly white and female. This MTurk sample was demographically similar to other MTurk samples from the United States (Burnham, Le, & Piedmont, 2018; Ipeirotis, 2012). Future research may benefit from

utilizing other survey techniques or from selecting samples with the purposes of making the group sizes more representative to the United States.

It is also important to acknowledge that these findings primarily apply to heterosexual marriages. Respondents were recruited on the basis of whether they had been legally married. Participants may have provided information about couplings that they deemed equivalent to marriage regardless of legal status. However, the relatively new acknowledgment of same-sex marriage in the United States very likely resulted in the sample being skewed toward heterosexual pairings.

Future research would also benefit from exploring possible demographic effects on the relation between marriage and birth order. Altus (1970) remarked that birth order is confounded by factors such as family size and socioeconomic status. Controlling for the possible effects of these types of factors would help researchers draw more solid conclusions about how birth order relates to marriage.

Summary

The homogamous patterns found in this study support the theory that, with the exception of youngest-born individuals, there is a slight tendency for people to marry others who share the same birth-order status as themselves, although the effect of birth order in marriage is small. Although a relation between birth order and marriage exists, clearly, birth order is not an especially good predictor of romantic affiliative preference. Two noteworthy findings are the support for previous findings that only-born individuals are especially likely to marry each other, and the pattern of people repeatedly marrying only-born individuals. Future research on birth order and romantic affiliative preference might benefit from an explicit focus on only-born people. Perhaps the romantic qualities of only-born people are somehow unique compared to those of people raised with siblings.

References

Altus, W. D. (1970). Marriage and order of birth. *Proceedings of the Annual Convention of the American Psychological Association,* 5(1), 361–362.

Birtchnell, J. & Mayhew, J. (1977). Toman's theory: Tested for mate selection and friendship formation. *Journal of Individual Psychology, 33*(1), 18–36.

Buhrmeister, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives*

on Psychological Science, 6(1), 3–5. https://doi.org/10.1177/1745691610393980

Burnham, M. J., Le, Y. K., & Piedmont, R. L. (2018). Who is MTurk? Personal characteristics and sample consistency of these online workers. *Mental Health, Religion & Culture*. https://doi.org/10.1080/13674676.2018.1486394

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York, NY: Erlbaum.

Eckstein, D., Aycock, K. J., Sperber, M. A., McDonald, J., Van Wiesner, V., III, Watts, R. E., & Ginsburg, P. (2010). A review of 200 birth-order studies: Lifestyle characteristics. *Journal of Individual Psychology, 66*(4), 408–434.

Hartshorne, J. K., Salem-Hartshorne, N., & Hartshorne, T. (2009). Birth-order effects in the formation of long-term relationships. *Journal of Individual Psychology, 65*(2), 156–176.

Ipeirotis, P. (2012). *Demographics of Mechanical Turk*. Retrieved from http://www.ipeirotis.com/wp-content/uploads/2012/02/CeDER-10-01.pdf

Levinger, G. & Sonnheim, M. (1965). Complementarity in marital adjustment: Reconsidering Toman's family constellation hypothesis. *Journal of Individual Psychology, 21*, 137–145.

Mendelsohn, M. B., Linden, J., Gruen, G., & Curran, J. (1974). Heterosexual pairing and sibling configuration. *Journal of Individual Psychology, 30*(2), 202–210.

Michalski, R. L. & Shackelford, T. K. (2002). Birth order and sexual strategy. *Personality and Individual Differences, 33*, 661–667.

Purcell, D. W., Blanchard, R., & Zucker, K. J. (2000). Birth order in a contemporary sample of gay men. *Archives of Sexual Behavior, 29*(4), 349–356. https://doi.org/10.1023/A:1001966320273

Rim, Y. (1981). The use of means of influence according to ordinal position and length of marriage. *Personality and Individual Differences, 2*(2), 125–127.

Salmon, C. (2003). Birth order and relationships: Family, friends, and sexual partners. *Human Nature, 14*(1), 73–88. https://doi.org/10.1007/S12110-003-1017-X

Slater, E. (1958). The sibs and children of homosexuals. In D. R. Smith & W. M. Davidson (Eds.), *Symposium on nuclear sex* (pp. 79–83). London, England: Heinemann Medical Books.

Slater, E. (1962). Birth order and maternal age of homosexuals. *The Lancet, 279*(7220), 69–71. https://doi.org/10.1016/S0140-6736(62)91719-1

Stewart, A. E., & Stewart, E. A. (1995). Trends in the birth order research: 1976–1993. *Individual Psychology, 51*(1), 21–36.

Toman, W. (1959). Family constellation as a character and marriage determinant. *International Journal of Psychoanalysis, 40*, 316–319.

Toman, W., & Gray, B. (1961). Family constellations of "normal" and "disturbed" marriages: An empirical study. *Journal of Individual Psychology, 17*, 93–95.

Touhey, J. C. (1971). Birth order and mate selection. *Psychological Reports, 29*, 618.

Ward, C. D., Castro, M. A., & Wilcox, A. H. (1974). Birth-order effects in a survey of mate selection and parenthood. *Journal of Social Psychology, 94*, 57–64. https://doi.org/10.1080/00224545.1974.9923182

Leah B. Manning received her PhD in human development from the Graduate Center of the City University of New York. Her interests primarily focus on the influence of early formative experiences on socioemotional development. Most of her work is on parent–child dynamics in infancy and early childhood.