



Type A Status: Birth Order and Gender Effects

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Possible links between birth order and various individual characteristics have intrigued both scientists and the lay public for well over a century. In general, research shows that, relative to later borns, firstborns seek greater acceptance, have a stronger need for achievement, are more likely to achieve intellectual eminence, are judged as more serious, more seclusive, and more sensitive. In contrast, relative to firstborns, later borns are typically more popular, more gregarious, and more socially oriented (for a review, see Ernst & Angst, 1983). Briefly stated, the theoretical basis of birth-order research is that the specific position individuals hold in a family influences the kinds of experiences encountered. There have been many ideas about how this affects their subsequent development. Adler (1956), for example, has suggested that firstborns (which includes only children) are likely to be more motivated to excel than their younger siblings. He describes middle borns (second, third, fourth, etc.) as nonconfrontational and noncompetitive. Finally, Adler characterizes last borns, or youngest, as carefree, affectionate, and persuasive.

Given these intuitively appealing distinctions, the popular press has devoted attention to the likely societal implications of smaller families and the resulting reduction in numbers of middle children and increase in numbers of only children. It has been speculated that society will be more strife-ridden as the numbers of "negotiating and com-

promising" middle children decrease and more "driving and perfectionistic" as the number of only children increases (Hall, 1986). Other popular writers have attempted to associate birth order and success. It has been noted, for example, that successful female entrepreneurs are likely to be firstborns (Therrien, Carson, Hamilton, & Hurlock, 1986) or that of the first 23 astronauts, 21 were firstborns (Hall, 1986).

Although existing research has shown birth order to be related to various individual characteristics, such as intellectual achievement and need for achievement, few studies have examined potential organizational implications of birth-order differences. In a review of the relevant literature, Heer (1985) reports that results relating birth order to job status and earnings are at best mixed. Along these same lines, Berger and Ivancevich (1973) examined the relationship between birth order and average rate of earnings progression. They found that middle managers who were firstborn or only children had the highest progression rates.

Dubno, Bedrosian, and Freedman (1969) investigated the relation between birth order and managerial achievement. Interestingly, they found a nonsignificant difference between numbers of firstborns and later borns at top levels, but a preponderance of firstborns in middle positions. They interpreted these findings in terms of conformity by positing that since firstborns are more likely to conform to expectations of others, they lack the creative genius necessary to advance in greater proportions to top management. In contrast, Popp and Davis (1976) found no birth-order effects for firstborns at any managerial level. However, only borns in their sample were overrepresented in top management and underrepresented among first-line managers.

Building on their earlier work, Dubno and Freedman (1971) analyzed birth-order frequencies using college education and managerial attainment as moderators. In line with previous findings, there was a strong birth-order effect for college graduates, but none for nongraduates.

Finally, a recent study by Phillips, Bedeian, Mossholder, and Touliatos (1988) examined the association between birth order and personality variables potentially related to various work outcomes. Relative to later borns, firstborns scored significantly higher on measures of dominance, good impression, and achievement via conformity.

Type A Status

The Type A construct is also widely recognized by both the scientific and lay communities. Individuals exhibiting Type A, or coronary-prone, behavior are characterized as being extremely hard driving and competitive, highly achievement oriented and work involved, and engrossed in

an incessant struggle to accomplish more and more in less and less time, especially in regard to job-related activities (Friedman & Ulmer, 1984). A recent study (Chesney, Hecker, & Black, in press) indicated that Type A status is more prevalent in men than women.

Given the significant overlap in characteristics of firstborns (including only children) and individuals classified as Type A, it is not surprising that attempts have been made to investigate a possible link between birth order and Type A status. Strube and Ota (1982) point out that the parental style of interactions with Type A children parallels parental interactions with firstborns. For example, it appears that parents set high, but ambiguous, performance standards for Type A children (Matthews & Siegel, 1982). In attempting to meet these demands, a child may try to achieve as many goals as possible, leading to the development of both achievement-striving and time-urgent behavior (Strube & Ota, 1982). Similarly, firstborns typically experience greater parental expectations and increased pressure to achieve (Bradley, 1968). Taken together, these findings suggest that one factor in the development of Type A status may be differential treatment of firstborn or only children and later borns (Strube & Ota, 1982). This suggestion is in line with Price's (1982) contention that Type A status is developed within the family environment via direct experience, instruction, and social modeling. It is not surprising, then, that Strube & Ota (1982) report that Type A individuals are more likely to be firstborns or that Ivancevich et al. (1987) report that firstborn or only children generally exhibit more Type A characteristics. It should be noted, however, that the studies on which both these reports are based involved student samples, and have not as yet been replicated with nonstudent subjects.

Hypotheses

The present study examined the association between birth order and Type A behavior. As a starting point, we wished to replicate the recent finding that Type A behavior is more prevalent in men than women (Chesney et al., in press). Accordingly, we stated the following hypothesis:

H₁—Type A scores for men will be higher than Type A scores for women.

Previous findings suggesting a positive relationship between birth order and Type A status (Ivancevich et al., 1987; Strube & Ota, 1982) have involved student subjects. We were interested in investigating whether this result was sample specific. Thus, drawing on a nonstudent sample, we hypothesized that:

H₂—Type A scores for firstborn and only children will be higher than Type A scores for later borns.

Method

Subjects. The sample consisted of 1,083 public, government, and industrial accountants responding to a national survey of accounting professionals. Participants in the survey were randomly selected from the membership rosters of the American Society of Certified Public Accountants, American Association of Women Accountants, National Association of Accountants, and Association of Government Accountants.

Measures

Demographic data. All participants completed a biodata questionnaire in which birth-order information was included along with general items such as gender, age, family data, and education-related questions.

Type A status. A special-purpose scale of the California Psychological Inventory (CPI; Gough, 1987) was used to assess Type A status. Developed by Palladino and Motiff (1981), the validity of this scale in measuring Type A status is based on its ability to discriminate Type As and Type Bs as originally classified by the Jenkins Activity Survey (JAS—Form T; Jenkins, Zyzanski, & Rosenman, 1979). The validity and reliability of the CPI are well established (Gynther & Gynther, 1983). In the present analysis, high scores were coded to indicate higher Type A status.

Analysis

To test the first hypothesis, mean Type A scores of men and women were computed. The difference between the means was analyzed using an independent samples *t*-test. Mean Type A scores were computed for firstborn and only children and for later borns in order to test our second hypothesis. The difference between these means was also analyzed using an independent samples *t*-test. *F*-tests were performed for both analyses to test the assumption of equal variances.

Results

F-tests indicated that the assumption of equal variances was tenable for both analyses. Table 1 (Panel A) presents the mean Type A scores partitioned on the basis of gender. There was a significant gender difference in Type A scores, with men scoring higher ($t = 5.47, df = 1080, p < .001$). The first hypothesis was thus supported.

Table 1
 Mean Type A Scores and *t*-Test Results: Men-Women and
 Firstborn/Only-Later Born

Panel A	Men-Women	
	Men	Women
	<i>n</i> = 531	<i>n</i> = 551
Type A Score	9.57	6.33*

Panel B	Firstborn/Only-Later Born	
	First-Only	Later
	<i>n</i> = 536	<i>n</i> = 547
Type A Score	8.61	7.24**

p* < .001; *p* < .05.

In support of the second hypothesis, Type A scores of firstborn and only individuals were higher than Type A scores of later borns ($t = 2.30, df = 1081, p < .05$). Mean Type A scores partitioned according to birth order also appear in Table 1 (Panel B).

Since gender comparisons of Type A status and other phenomena have been largely ignored, the relationship between birth order and Type A status by gender was explored to see if any difference existed. Two *t*-tests for independent samples indicated that, for males, there was no difference in Type A scores by birth order ($t = 1.30, df = 529, ns$). In contrast, firstborn/only females exhibited significantly higher Type A scores than later born females ($t = 1.99, df = 549, p < .05$). Mean Type A scores partitioned by birth order within gender appear in Table 2.

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Table 2
Mean Type A Scores: Firstborn/Only-Later Born by Sex

	Men		Women	
	First/Only <i>n</i> = 262	Later <i>n</i> = 269	First/Only <i>n</i> = 274	Later <i>n</i> = 277
Type A Score	10.13	9.04	7.17	5.15*

* $p < .05$.

Discussion and Conclusion

The results of this study support our hypotheses that the Type A scores of men will be higher than the Type A scores of women, and that Type A scores for firstborn and only children will be higher than those for later borns. While the correlation between Type A score and ordinal position is by no means conclusive, it does indicate an area ripe for investigation. Taken together with previous research (Ivancevich et al., 1987; Matthews & Siegel, 1982; Price, 1982; Strube & Ota, 1982), it seems that research into individual family experiences is desirable if we hope to understand possible developmental relationships between parental style, Type A scores, and birth order.

One purpose of this study was to determine whether or not previous findings with regard to Type A behavior and birth order could be generalized to something other than a student population. As Bradley (1968) and Ivancevich et al. (1987) have suggested, firstborns are more strongly represented in occupational fields characterized by higher educational levels and more competitive professional requirements. Furthermore, Mettlin (1976) finds a similar pattern with respect to the jobs held by those with high Type A scores. Thus, it is possible that Type As self-select into jobs that are more demanding or competitive (Waldron et al., 1980), or perhaps that a job's increased demands of time and effort serve to transform passive Type Bs into more assertive time-conscious Type As (Davidson & Cooper, 1980). In this same vein, Chesney and Rosenman (1980) suggest that Type A behavior and work experiences have reciprocal effects to the degree that Type A behavior is positively rewarded (i.e., salary and

prestige). Thus, future research efforts would do well to include subjects who have lower educational levels and less competitive occupations, as well as those groups previously studied.

Since these results support our two hypotheses, it would initially seem that both gender and birth order may be associated with the development of Type A status. However, the significantly higher Type A scores exhibited by firstborn/only females as compared to their later born counterparts would suggest something other than a strictly gender-based biological interpretation. This result is perhaps indicative of a correlation between the parental styles associated with Type As and firstborns, and that frequently associated with the traditional socialization of male children (Chesney, 1983; Waldron, 1978). In other words, socialization of male children may in general result in Type A characteristics (irrespective of birth order) more than traditional female socialization patterns. Furthermore, this difference in socialization patterns when combined with birth-order effects might increase the likelihood of higher Type A scores of firstborn/only males relative to their female counterparts. Again, however, research is needed as to how family environments may systematically differ, so that gender effects and birth-order effects can be better understood.

Finally, considering females alone, greater parental expectations may account for observed birth-order effects in Type A scores. Interestingly, a post hoc analysis showed no difference in Type A scores of later born men and first/only born women ($t > .23$, $df = 541$, ns). At this time, however, we can only speculate as to whether this result is associated with birth order or socialization or some combination of the two.

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