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Birth Order Position and Prosocial Tendencies

Gerhard Schwär and Amber Mahony

This study investigated the relationship between psychological birth order position and different types and levels of prosocial tendencies. An ex post facto, between-family research design was used. Data on prosocial tendencies were obtained from 888 college students (females = 80.4%, mean age = 20.94 yrs, SD = 2.83; males = 19.6%, mean age = 21.62 yrs, SD = 2.44). Participants completed a biographical questionnaire as well as the Prosocial Tendencies Measure (Carlo & Randall, 2002). Data were analysed to compare and contrast prosocial tendencies between demographics using parametric ANOVAs, t tests and the Mann–Whitney Test. Significant differences in prosocial tendency scores were only found between middle-borns and last-borns on altruism, with middle-borns scoring significantly higher in prosocial tendencies than last-borns. There is no evidence to suggest that a definitive link between prosocial tendencies and birth order exists in this study.

■ Keywords: birth order (position), prosocial tendencies

Alfred Adler (1928) is credited as being the first psychologist to suggest that birth order might affect a person’s personality and lifestyle. He contended that birth order significantly influences personality development of the child by giving rise to a unique system of power created in each family. For instance, birth-order influenced children differentiate themselves from their siblings in order to reduce competition, to establish their own identities within the family and to ensure their portion of parental love and attention. This differentiation then shapes their choices and the development of their stable personality traits, such as dominance and authority (Freese, Powell, & Steelman, 1999). Conversely, Adler believed that youngest children were most at risk of developing a dependent personality and a passive lifestyle. Sulloway (2002) points out that last-borns tend to employ low-power strategies such as pleading and bargaining.

The discourse around birth-order effect has become well established in popular culture. Lay people and even professionals (Stewart, 2004) may inadvertently propagate the idea of personal differences between birth-order groupings at the expense of individual uniqueness. For instance, the website http://www.birthorders.com/ has as its by-line ‘Birth order: Your key to compatibility’. The site claims that knowledge of birth order can assist people to get along better with colleagues, friends and family. It is also maintained that romantic compatibility can be ascertained through birth order. Birth-order effect stereotypes potentially can lead to the typecasting of individuals. This potential for misappropriated birth-order stereotyping can be seen in the popularisation of the construct in lay culture.

Prosocial tendencies appear to be influenced by birth order. The concept prosocial tendencies refers to the likelihood that an individual will engage in ‘voluntary actions that are intended to help or benefit another individual or group of individuals’ (Eisenberg & Mussen, 1989, p. 134). Chronological birth order only partially overlaps with psychological birth order. The term psychological birth order refers to the actual family structure an individual was raised in and accommodates potentially confounding contextual variables such as wide birth spacing between siblings, miscarriages and blended families (Syed, 2004).

Regarding the ontology of birth-order effects, Adler proposed that first-born children fulfilled the role of guardians or custodians of the established order (Adler, 1927). Younger siblings, in contrast, are restless and constantly under pressure from older siblings. Adler surmised that first-borns experienced trauma from ‘dethroning’ associated with the arrival of a new baby as a motivator for the first-born’s identification with authority (Bégue & Roché, 2005).

Social learning theory proposes that second-born children learn relationship skills and behaviours as a
consequence of interacting with their older siblings or by observing their older siblings’ friendships (McHale, Updegraff, Helms-Erikson, & Crouter, 2001). The theory also suggests that last-born children tend to be more socially adept than first-borns because they not only have their parents as socialisation agents but also are socialised by older siblings who can model more advanced social skills in relationships with peers (Sulloway, 1999, 2001). A first-born, by contrast, has the advantage of fulfilling the role of tutor to the younger siblings, amplifying the learning opportunities for the elder sibling through the mechanism of teaching as a way to consolidate learning.

Nonetheless, the significance of the influence that siblings exert on each other’s everyday lives was and still remains a central theoretical and empirical question. There is evidence to suggest that a child’s personality traits are profoundly shaped by early childhood experiences (Hardy & Kisling, 2006). Specifically, birth-order position could contribute to the shaping the development of individual prosocial tendencies (Eisenberg & Mussen, 1989). Borkenaui, Riemann, Angleitner and Spinath (2001) found that environmental factors account for between 40% to 80% of the phenotypic variance in personality, and that birth order accounts for as much as 35% of personality variance. Sulloway (1999) proposed that birth order is a better predictor of social attitudes than gender, class or race. The ordinal position is one of a number of characteristics that correlates with prosocial tendencies (Eisenberg & Mussen, 1989).

Research on Birth-Order Effects

Studies have examined birth-order effects on prosocial behaviours of first-, middle- and last-borns. First-borns show comparatively higher levels of anxiety and creativity than other birth-order positions (Eisenman, 1992). This could be explained by the fact that social anxiety predicts higher levels of proactive prosocial behaviour (Culotta & Goldstein, 2008), suggesting that first-borns may be more prone to prosocial behaviour than the other birth-order positions. Dunn and Munn (1986) similarly found that older siblings are more likely to behave prosocially in sibling interactions. This is especially true with regard to the older siblings’ actual prosocial behaviour in interactions with younger children (Parke & Buriel, 1998).

The strongest existing evidence for differences in social behaviour attributable to birth-order position, relates to middle-borns’ ability to form social relationships. Middle-borns, in contrast to first-borns, are more sociable, popular and adept at managing personal relationships than first- and last-borns (Syed, 2004). Because children with high levels of constructive social skills tend to have prosocial reputations (Eisenberg et al., 1996), this suggests that middle-borns may exhibit the highest levels of prosocial behaviour based on birth-order position.

Last-borns have been found to be high in empathy (Eckstein, 2000), which has been shown to evoke altruistic motivation (Batson & Shaw, 1991). They are also most able to identify with others compared to those born earlier (Syed, 2004). This ability to take others’ perspectives relates to higher levels of prosocial moral reasoning, which in turn motivates prosocial behaviour (Eisenberg, Zhou, & Köller, 2001). This suggests that last-borns are more prone to prosocial behaviour than those in the other birth-order positions. In addition, there is also limited research regarding individual differences in the six types of prosocial behaviours among the respective birth-order positions (Eisenberg, Fabes, & Spinrad, 2006). Prior research has indicated an increase in the likelihood of prosocial behaviours occurring as children become older. Prosocial behaviour specifically increases from adolescence into adulthood (Eisenberg et al., 2006). This increase is attributed to an adult’s enhanced capacity for perspective-taking and approval/interpersonal oriented/stereotypic prosocial moral reasoning (Carlo & Hart, 2005).

Cultural Context

The issue of culture in birth-order effects is important, although it did not form part of this study. According to international studies, the impact of birth order may vary according to the cultural context (Steelman, Powell, Werum, & Carter, 2002). It can be observed that the specific South African context is not only complex but also in a state of flux. Several factors may have a bearing on this study. Officially, the country has eleven languages (i.e., eleven cultural groups), to complicate matters further, there tend to be differences within many of these groups themselves. In addition, the advent of democracy 18 years ago and the accompanying political, economic and social transformations have brought about a shift in the dynamics of society. Artificial separation has been legally removed, thereby bringing about very close contact between cultural groups at an unprecedented level. Cultural groups have been moving closer together, thereby necessitating change and adaptation as well as bringing about more of a levelling effect in terms of culture. In a metropolitan area like Johannesburg this intermingling of cultures and contact is very noticeable and prevalent. It could be expected that cultural differences would be less stark and that culture would have a smaller effect when comparing people in cities than when comparing people from rural and urban areas with each other.

Goals of the Study

In view of the mixed findings of birth-order effects on prosocial tendencies, the study examined birth-order position effects on the level and type of an individual’s prosocial tendencies. The study thus set out to establish the precise relationship between birth-order position and prosocial tendencies.
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Method

Participants and Setting

Participants were a convenience sample of 888 second- and third-year psychology students at a South African university. The population from which this sample was drawn consisted of 53.6% Black, 6.1% Coloured, 6.6% Indian and 33.7% White students. By birth order, the sample breakdown was first \((n = 288)\), middle \((n = 214)\), last \((n = 318)\) and only \((n=63)\) (see Table 1). Slightly over 55% of the sample \((N = 494)\) consisted of second-year students. In terms of gender 168 males (18.9%) and 714 females (80.5%) participated in the research. Ages of participants ranged from 18 to 48 years.

Procedure

Permission for the study was granted by the University of Johannesburg Ethics Committee. Participants provided individual consent to the study. Participants had a two-week period within which they could access and complete the online questionnaire.

Instruments

Participants provided data on their personal demographics, family constellation and perceived psychological birth order. They also completed the Prosocial Tendencies Measure (PTM; Carlo & Randall, 2002). The PTM is a 23-item Likert-type measure of six prosocial tendencies: public (helping others in front of spectators, largely motivated by approval), compliant (helping others when requested to), emotional (helping others who are in emotionally evocative situations), dire (helping in emergency situations), anonymous (helping others without their knowledge or recognition) and altruistic (helping others with little regard for personal reward) (Carlo & Randall, 2002). A Cronbach’s alpha coefficient of 0.81 was observed in the present study, indicating adequate reliability for study purposes.

Data Analysis

The statistical measures used to analyse the data included one-way ANOVAs to determine differences between the four birth-order groups on both the entire PTM as well as one-way ANOVAs to determine differences between the birth-order groups did not have significantly different scores on any of the subscales of the PTM (see Table 2).

Results

In order to establish the association between birth-order position and prosocial tendencies, birth-order differences were first investigated using the four birth-order categories. Differences between the means for each birth-order position on the PTM were not statistically significant at the 5% level. (The mean across the full PTM scale for first-borns was 3.0017, for middle-borns 3.0566, for last-borns 2.9612, and for only children 2.9282.)

Excepting the altruism subscale, the different birth-order groups did not have significantly different scores on the other five subscales of the PTM. A post-hoc comparison using the Scheffe test indicated that the mean score for middle-borns \((M = 2.10, SD = .77)\) at the \(p < .05\) level. Further post-hoc analysis using an alternative birth-order grouping methodology by Sulloway (2007) also did not show significant differences between the birth-order positions on any of the subscales of the PTM (see Table 2).

Discussion

Middle-borns were more altruistic than last-borns. This birth-order effect on the altruism subscale could be explained by research indicating that middle-borns rate highest on the sociability factor of the NEO Five-Factor Inventory (Beck, Green, & Vosper, 2006) as well as on most measures of agreeableness (Paulhus, Trappell, & Chen, 1999). Middle-born children may perceive their self-worth in terms of interpersonal acceptance and evaluation (Kalkan, 2008).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Birth Order</th>
<th>Min.</th>
<th>Max.</th>
<th>SD</th>
<th>M</th>
<th>t score</th>
<th>p</th>
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<td>Public</td>
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<td>.80</td>
<td>2.15</td>
<td>.05</td>
<td>.959</td>
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<td></td>
<td>Latter</td>
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<td>5.00</td>
<td>.81</td>
<td>2.10</td>
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<td></td>
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<tr>
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<td>First</td>
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<td>5.00</td>
<td>.81</td>
<td>3.90</td>
<td>-.56</td>
<td>.579</td>
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<tr>
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<td>5.00</td>
<td>.78</td>
<td>3.93</td>
<td></td>
<td></td>
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<tr>
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<td>5.00</td>
<td>.77</td>
<td>2.15</td>
<td>-.61</td>
<td>.546</td>
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<tr>
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<td>2.18</td>
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<tr>
<td>Dire</td>
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<td>5.00</td>
<td>.77</td>
<td>3.56</td>
<td>.55</td>
<td>.586</td>
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<td>3.53</td>
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<td>.79</td>
<td>4.02</td>
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<td>.85</td>
<td>3.98</td>
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<td></td>
</tr>
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<td>3.10</td>
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<td>.726</td>
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</table>
Psychodynamic theory considers altruism to be a mature defence associated with seeking psychological meaning (Whitty, 2003) so that the greater a person’s sense of meaning and purpose in life, the more mature the defence mechanisms and coping strategies that individual will use. Altruism can thus be seen to be a ‘higher’ or more transcendent form of prosocial behaviour than the other forms.

The null effect findings for a birth-order effect on the public, compliant, emotional, dire and anonymous sub-scales of the PTM are not completely surprising given the fact that the dependent variables examined by different birth-order effect studies may vary in their sensitivity to birth-order influences. Specifically, they postulate that birth-order effects may be less likely to be found in trait-level individual differences than in dependent measures that are more responsive to family dynamics (Dunkel et al., 2009). It could be argued that the construct prosocial tendencies is such a trait-level individual difference.

Limitations of the Study
Several limitations apply. The rich diversity of South African society means that the population of this study is far from homogenous. The ethnic, racial, cultural, religious, socioeconomic and linguistic diversity of the student population may explain the insignificant birth-order effects. Assumptions made that the student population is homogenous seem to be unfounded and clouded by political ideology. A less diverse population may have been more uniform with regard to possible family-of-origin constellation variables, as well as culturally congruent approaches to parenting and discipline. Socioeconomic factors, cultural traditions and practices, family constellations and religious beliefs all contribute to the way in which an individual is parented and socialised, which in turn contributes to shaping a personality prone to prosocial behaviour.

Over 80% of the participants were female and they may have a unique psychological birth-order profile. Future studies should investigate the interactional effect of gender and birth-order position on prosocial behaviour.

Conclusion
Dr Kevin Leman wrote a book entitled The New Birth Order Book: Why You Are The Way You Are. He claims that 'Birth order has nothing to do with astrology, but it definitely affects your personality, whom you marry, your children, your occupational choice, and even how well you get along with God’ (Leman, 1998, p. 13). The current research, however, stresses that statements like these need to be considered very carefully. According to this study there is no unambiguous and definitive link between prosocial tendencies and birth order.

References

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