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Cheaper by the Dozen: Communication in Large Families

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CHEAPER BY THE DOZEN

Communication in Large Families

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The University of Rhode Island
A Springboard

In 1948, Frank Bunker Gilbreth, Jr. and Ernestine Gilbreth Carey penned a biographical novel named *Cheaper by the Dozen*, detailing their experiences growing up in a family with twelve kids. Though families of this size are relatively common in other cultures, large families in the United States today are atypical. This demographic was not even measured in 2010 census data. Nevertheless large families are a unique and dynamic social structure rife with potential to explain the effects of communication patterns on individual personality and development. Attention to diverse family forms is an important facet of studying family communication. The area I wish to illuminate is how communication in the context of large nuclear families of six or more individuals influences the expression of extraversion, neuroticism, and family satisfaction.

There exists very little scholastic literature surrounding large families, particularly their communicative behaviors. In spite of this, there is much research to indicate that the family environment one is raised in significantly contributes to one’s personal development. This idea is grounded in family systems theory, an approach to the study of families that emphasizes interdependence, wholeness, patterns, punctuation, openness, complex relationships, and equifinality. (Galvin, Bylund, & Brommel, 2012) This conceptualization of family units describes how the family structure is one of synergy, where the whole is greater than the sum of its parts. A change in the family system can in turn result in a change in individuals within that system. This theory is useful in framing our understanding of the role “nurture” and environment play into an individual’s development. Patterns, normative rules, and complex relationships within families all contribute to how individu-
als within those families behave. The question then becomes, what communicative behaviors within large families contribute to the expression of certain personality traits?

The role of family influence in individual personality has long been a question of interest in the field of psychology. My research is oriented around trait theory, which postulates that personality is measurable and composed of habitual patterns of behavior, thought, and emotion called traits. The two most prominent traits, found in nearly all personality trait models, are extraversion and neuroticism. Because these traits are the most conspicuous and observable they are an ideal starting point for gauging the influence of family size on the expression of these traits. In their study “Familial Aspects of Neuroticism and Extraversion,” Coppen, Cowie, and Slater (1965) noted the genetic component of personality, but also emphasizes that family environment plays a role in the extent to which a trait propensity is expressed. Patients of a neurosis center were given a personality inventory along with their relatives. While patients on a whole expressed raised neuroticism and depressed extraversion, their relatives did not mirror this trend, even when sorted by type of relative.¹ They concluded that genetics alone did not explain the presence of neuroticism and absence of extraversion within their sample population. Instead parental relationships appeared to play some role, suggesting a careful interplay between nature and nurture. This indication that family environment and communicative behaviors can affect the expression of personality traits is the central premise of my research.

When considering familial and even parental influence on their children, the question of family size introduces the theory of resource dilution. This sociological theory posits

¹ I.e. Spouses were omitted and in particular correlations between parents were examined.
that parental resources (time, attention, affection, etc.) are limited, and that while an only child might receive all of their parents’ resources, each additional child must share parental resources with their siblings. The greater the number of siblings, the more ground over which parental resources are dispersed, the smaller the share of resources each child receives. While this theory has not to date been applied to personality and communicative behaviors, much research has demonstrated its validity in the context of educational performance. A study by Downey (1995) demonstrates there are a few different factors at work. His investigation of 24,599 eighth graders confirmed the inverse relationship between number of siblings and education performance, noting “parental resources explain most or all of the inverse relationship between sibship size and educational outcomes.” He found that interactions between number of siblings and parental resources support the dilution model as children benefit less from certain parental resources when they have many versus few siblings. Though he clarifies this study fails to differentiate between the effects of economic versus interpersonal resources, family size is clearly a factor in a child’s educational performance. Could this model of resource dilution also have implications for types of communication used in large families and the expression of personality traits?

The element of family structure that does appear to be related to personality is found in the growing body of research surrounding birth order. In their 2001 article “Methodology, Birth Order, Intelligence, and Personality,” Michalski and Shackelford discuss how parental and sibling interactions throughout family development have a shaping effect on children. Intelligence, a more genetic-based quality, is less influenced by familial interactions. Personality, on the other hand, can be accounted for through many family

2 Via the 1988 National Education Longitudinal Study.
variables. They conclude by asserting, “The potential for growth in family size thus may be interpreted in different ways as a function of birth order.” While the effects of birth order on personality are easy to see in a small family (which are conveniently segmented into eldest child, middle child, and youngest child), birth order may have a very different effect within large families, which have large age ranges and many kids “in the middle.” This is one application of birth order that my research seeks to explore. Stagner and Katzoff (1936) offer some helpful parameters, despite the datedness of their research. Their personality inventory with 430 men indicated smaller families tended to have greater personality influence through birth order, and that the effect of being dispossessed by a later-born child appeared to be the development of more independence. Their study is a reminder that family constellation is just a small portion of total family interaction that may influence personality.

What, then, is the influence of sheer family size? Though existing research is sparse, a 1986 study by Narchal & Shukla took a preliminary step in comparing the effects of family size. They administered personality inventories to a total of 90 adolescent girls; 30 from small families (one-two siblings), 30 from medium families (two-five siblings), and 30 from large families (more than five siblings). They found a significant difference for both extraversion and neuroticism between small families and big families. Though this study has not been replicated, the results seem to indicate there is a reasonable basis for investigating the role of family size in individual personality and family satisfaction. Another older study by Maller (1931) placed some groundwork for what kinds of variables are affected by family size. He surveyed 802 children from three different schools in Connecticut, with an av-
verage age of 12.3 years. He found a significant correlation between a child’s cooperativeness and number of siblings, as well as between a child’s contentiousness and number of siblings. While there were a number of demographic factors in play (larger families tended to be from the poorest school district, while small families were predominantly wealthy), this foundational study establishes the potential for family size to influence personality traits for individuals within those families.

This existing scholastic literature sparked the following research questions for exploration. What communication behaviors occur most frequently within large families? What themes and topics characterize communication within large families? To what extend does family size influence the expression of extroversion and neuroticism? What is the function of family size on family satisfaction?

Survey Method

To quantitatively analyze the effects of family size and birth order on extraversion, neuroticism, and family satisfaction I constructed a 53-item questionnaire to be anonymously distributed through an online survey platform QuestionPro®. I disseminated the survey through local homeschooling email groups, such as Rhode Island Guild of Homeschool Teachers (RIGHT) and Rhode Island Christian Home Educators (RICHES), as well as through Craigslist and convenience sampling. One-hundred twenty individuals responded, but 42 responses were eliminated due to missing data. The total sample was 64% female and 35% male. The average age of survey respondents was 26.4, but covered a range __________________________

3 Attention to average age given to emphasize that “young families” which can complicate the family size relationship were somewhat eliminated.
of individuals from age 10 to age 75. Only individuals reporting five or more siblings were sampled. Individuals were first asked to report details about their family structure. The first four items were open input, and the fifth item grouped respondent birth order into five loose categories. Average household size was 9.51. The average number of siblings was 7.63, relatively balanced between brothers and sisters. (Slightly more brothers than sisters, perhaps because survey respondents were more commonly female.) Most respondents fell into the older than most and younger than most categories (33% and 31%, respectively). These questions allowed me to gather more information about the structural makeup of the nuclear families I wished to study.

<table>
<thead>
<tr>
<th>Table 1.1 Family Structure Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your total household size? ____</td>
</tr>
<tr>
<td>2. How many siblings total do you have? ____</td>
</tr>
<tr>
<td>3. How many brothers do you have? ____</td>
</tr>
<tr>
<td>4. How many sisters do you have? ____</td>
</tr>
<tr>
<td>5. Please indicate where you fall in the birth order of your family.</td>
</tr>
<tr>
<td>Oldest</td>
</tr>
<tr>
<td>Older than most</td>
</tr>
<tr>
<td>Middle (for odd number of siblings only)</td>
</tr>
<tr>
<td>Younger than most</td>
</tr>
<tr>
<td>Youngest</td>
</tr>
</tbody>
</table>

4 Presumably this result is by virtue of these categories naturally occurring most frequently within large families. That is, a family can only have one youngest child and one oldest child, leaving a large range of children in between.
Because my research concerns the expression of extraversion and neuroticism among individuals raised in a large family, in order to measure the presence of these personality traits I employed Sato’s version of the Eysenck Personality Questionnaire. This 24-item scale tested extraversion with odd-numbered questions and neuroticism with even-numbered questions. Additionally, items #13 and #19 were reverse scored. All items were five-point Likert scales asking participants to rank their agreement with the statement from “not at all”, “slightly”, “moderately”, “very much” and “extremely”.

In addition to measuring personality, I was also concerned with the relationship between family size and family satisfaction. In order to measure an individual’s satisfaction with their family experience, I also included the 19-item Family Satisfaction Scale by Carver & Jones. Items #3, #7, #8, #14, #15, and #16 were reverse-scored. Because my sampling frame included individuals still at home within a large family context, I changed the tenses of questions from past to present.

The remaining items of this questionnaire asked participants to report their demographics: gender, education, income, and ethnicity. Additionally, the data collection tool I used automatically collected the ISP-reported location of respondents, indicating they were exclusively from the United States and predominantly from the northeast.

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5 See Table 1.2, page 9
6 See Table 1.3, page 10
<table>
<thead>
<tr>
<th>Table 1.2 Toru Satō’s EPQ-BV (2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you a talkative person?</td>
</tr>
<tr>
<td>2. Does your mood often go up and down?</td>
</tr>
<tr>
<td>3. Are you rather lively?</td>
</tr>
<tr>
<td>4. Do you ever feel miserable for no reason?</td>
</tr>
<tr>
<td>5. Do you enjoy meeting new people?</td>
</tr>
<tr>
<td>6. Are you an irritable person?</td>
</tr>
<tr>
<td>7. Can you usually let yourself go and enjoy yourself at a lively party?</td>
</tr>
<tr>
<td>8. Are your feeling easily hurt?</td>
</tr>
<tr>
<td>9. Do you usually take the initiative in making new friends?</td>
</tr>
<tr>
<td>10. Do you often feel &quot;fed-up&quot;?</td>
</tr>
<tr>
<td>11. Can you easily get some life into a rather dull party?</td>
</tr>
<tr>
<td>12. Would you call yourself a nervous person?</td>
</tr>
<tr>
<td>13. Do you tend to keep in the background on social occasions?</td>
</tr>
<tr>
<td>14. Are you a worrier?</td>
</tr>
<tr>
<td>15. Do you like mixing with people?</td>
</tr>
<tr>
<td>16. Would you call yourself tense or &quot;highly-strung&quot;?</td>
</tr>
<tr>
<td>17. Do you like plenty of action and excitement around you?</td>
</tr>
<tr>
<td>18. Do you worry too long after an embarrassing experience?</td>
</tr>
<tr>
<td>19. Are you mostly quiet when you are with other people?</td>
</tr>
<tr>
<td>20. Do you suffer from nerves?</td>
</tr>
<tr>
<td>21. Do other people think of you as being very lively?</td>
</tr>
<tr>
<td>22. Do you often feel lonely?</td>
</tr>
<tr>
<td>23. Can you get a party going?</td>
</tr>
<tr>
<td>24. Are you often troubled about feelings of guilt?</td>
</tr>
</tbody>
</table>
### TABLE 1.3 CARVER & JONES FAMILY SATISFACTION SCALE (1992)

1. In their treatment of one another, my family is consistent and fair.
2. I would do anything for a member of my family.
3. I have a good time with my family.
4. I always feel my parents support me.
5. I always know what I can and can’t “get away with” at my house.
6. I am never sure what the rules are from day to day.
7. My family is the one of the least important aspects of my life.
8. I would do anything necessary for any member of my family.
9. There is too much conflict in my family.
10. I usually feel safe sharing myself with my family.
11. I am happy with my family just the way it is.
12. Members of my family treat one another consistently.
13. There is a great deal about my family that I would change if I could.
14. With my family I can rarely be myself.
15. I am very unhappy with my family.
16. I am deeply committed to my family.
17. I often find myself feeling dissatisfied with my family.
18. My family always believes in me.
19. I find great comfort and satisfaction in my family.
Survey Results

Though the purpose of this questionnaire was primarily exploratory, there were a few variables of particular interest. For the personality component, extraversion and neuroticism for each respondent were calculated from the scale. On average the sample was “very much” extraverted and “slightly” neurotic. There was no correlation between family size and extraversion or neuroticism, but the sample as a whole was visibly more extraverted than neurotic. Within this sample participants were more likely to be extraverted than neurotic.7

Similarly, I wanted to compare family satisfaction levels with family size. I totaled family satisfaction for each respondent and ran a correlation between total family satisfaction and household size. While there existed no relationship between number of family members and family satisfaction, the sample as a whole indicated that on average respondents were between “moderately” and “very much” satisfied with their families.

Finally, I wished to examine whether there existed a relationship between family satisfaction and birth order. I used a one-way ANOVA test to compare family satisfaction across birth order groupings. Average family satisfaction was highest for the younger than most grouping at 54.5 compared with 49.86 for the older than most group and 45.5 for the youngest respondents. Using the Tukey post-hoc test, the data indicated there was a significant difference in family satisfaction between the younger-than-most and older-than-most groupings, as well as between the younger-than-most and youngest groupings.

7 Correlation to family size is likely not visible because the sample was composed exclusively of large family members. It remains to be seen if a comparative study would reveal greater frequency of extraversion in large families over the general population.
## Interview Method

Interviews were conducted with 10 individuals from three different large families. This was a convenience sample based on local families with whom I had previously established relationships. Respondents ranged in age from 12 to 26. Six participants were female and four were male. Interviews were semi-structured utilizing open-ended questions and allowing participants to respond with little interviewer guidance or prompting beyond the question itself. Interviews were recorded and later analyzed for common themes, which were ranked by frequency of occurrence.  

<table>
<thead>
<tr>
<th>Birth Order (1)</th>
<th>Birth Order (J)</th>
<th>Mean Difference</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older than most</td>
<td>Younger than most</td>
<td>4.64286</td>
<td>0.027</td>
</tr>
<tr>
<td>Youngest</td>
<td>Younger than most</td>
<td>9.00001</td>
<td>0.027</td>
</tr>
</tbody>
</table>

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8 See Table 1.4, page 13
**TABLE 1.4 INTERVIEW QUESTIONS**

1. How would you describe your family unit as a whole?
2. How would you describe your role within your family?
3. How would you describe your interactions with your siblings?
4. What topics do you typically discuss with your siblings?
5. How would you describe your interactions with your parents?
6. What topics do you typically discuss with your parents?
7. When do you feel most heard by your family members?
8. When do you feel least heard by your family members?
9. What do you like about being a member of a large family?
10. What do you dislike about being a member of a large family?
11. To what extent do you look to your family for social support?

**Interview Results**

Perhaps the most fruitful component of this research, the interviews illuminated several components of large family communication, which the questionnaire could not excavate. The most principle insight gained from these interviews helps to explain the role of birth order in family satisfaction identified by the survey. Nearly each respondent indicated the presence of a phenomenon that for the purposes of this research I will call “the cohort effect.” Individuals found that natural groupings or subsystems emerged under the umbrella of the family. They reported depending on those within their cohort for social support and performing the same jobs and chores, usually relating to other groups. Typically among the individuals I interviewed older children were responsible for helping with schoolwork and
mentoring life skills, middle children were responsible for taking care of the younger children, and younger children were responsible for chores and contributing around the house.

Another dominant theme addressed individuals' appreciation of the diversity and variety present within their families. “There's always someone to talk to,” noted one participant. “Everyone specializes in something different,” said another. Tangentially related to this sentiment, all respondents affirmed they are highly dependent for their families for social support. There is an intensified element of controlled chaos that theoretically comes from sheer number of agents to coordinate but also leads to increased interdependence due to specialization and complex relationships. This dependence on the family unit for social support may also indicate that large families are generally self-sufficient entities, perhaps due in part to social stigmatization, as postulated by Arnold (2006).

Limitations

It is necessary to note that small sample size may account for some of the results of the survey component of this research. For example, only four youngest children were surveyed out of the entire sample, which may explain the significant difference present in youngest children's family satisfaction as compared with the younger than most grouping.

There are also challenges regarding the generalizability of this sample. Respondents were predominantly Caucasian (71%), obscuring cultural variables and giving an incomplete picture of who actually makes up this large family demographic. Though participants reported a relatively equal number of brothers and sisters, the sample was nevertheless comprised of more females (64%) than males.
Additionally, reporting bias may have skewed family satisfaction levels. Younger respondents who still live within their family structure may have been less willing to affirm negative statements in the scale and some respondents may have been hesitant to incriminate their families despite the anonymous nature of the survey. Though this scale was selected because of its specific focus on the family environment, it has not been widely used in research since its publication and may not be the most appropriate instrument in this context.

**Future Research**

Because so little academic research exists on this marginal but fascinating demographic, the topic is rife with potential for further exploration. A great place to start is with comparison. Because this study was not comparative in nature, there was no existing baseline to contrast with levels of extraversion, neuroticism, and family satisfaction. Though my research here seems to indicate that individuals from large families are generally extraverted, not neurotic, and moderately satisfied with their families, there is no real insight on the function of family size without a small- and medium-sized sample with which to compare the means. It therefore remains to be seen if there are certain personality factors that are more commonly expressed in large families as opposed to a more typical smaller family.

This research also indicates that birth order (an already established research interest) may have unique functions within the context of large families. While the effects of birth order are more obvious in a family of three children, it may also be possible that the cohort effect
exhibited in large families may complicate or inform what we already understand about the influences of birth order on personality.

Lastly, the effect of role differentiation on large family communication leaves much room for consideration. As Downey (1995) indicated, the greater the number of children, the more parental resources are dispersed. For large families this means that children step into roles ordinarily filled by parents in smaller families, which could have interesting implications for individual development within such a family. Families as systems are fascinated subjects of study because their unique combinations of variables weave a tapestry of interdependence that is only theirs. What we already know about family communication may be expanded and informed by studying the behaviors that allow large families manage tensions between cohesion and change while coping with their scale and internal diversity.
Bibliography


