

The Name Letter Effect: Correlation between Name, GPA, and Choice of Exam Times

Hui Bai¹ and Kathleen Briggs²

Department of Psychology, University of Minnesota, Minneapolis, Minnesota

The name letter effect refers to unconscious priming based on one's name that may influence behavior. Previous research found correlations between the initial of one's last name and preferences and behavior. Study 1 investigated the correlation between students' last name initials and when they took an exam in a two-day period. Study 2 sought to replicate the finding that students whose names start with A or B earn higher grades than students whose names start with C or D (Nelson & Simmons, 2007). Study 1 showed no correlation between students' last name initial and choice of exam time. Study 2 replicated the finding that the initial of the last name is related to GPA. However, these findings should be interpreted cautiously due to methodological concerns and inconsistent results. Together, these findings suggest that the name initial is at best a very limited unconscious prime, if any.

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Many parents believe that the name they give their child is important. In China, many parents choose meaningful names for their children in the hope that the child will acquire the desirable characteristics associated with that name. For example, it is not uncommon for a child's name to be the word for "beautiful" or "brave." While it is not yet supported by research that the children with these names will develop those attributes, it has been shown that the way people perceive one another is affected unconsciously by their names (Huang, & Murnighan, 2010; Widner, 2011). In addition, some studies show that the letters in one's name can have an impact on his or her preference on alphabet letters, to a small but significant degree (Nuttin, 1985; Koole, Dijksterhuis, & van Knippenberg, 2001; Lipsitz & Gifford, 2003). This paper reviews several previous studies about how one's preferences and behavior are unconsciously affected by his or her name, and then we will discuss the findings from our study on the correlation between the initial of one's last name and the preference for taking an exam early.

¹ Hui Bai (*maxhbicloud@me.com*) is a junior in the College of Liberal Arts. He will receive his B.A. in Psychology and a minor in Economics, a minor in Management, and a minor in Mathematics in May 2012. He plans to pursue a Ph.D. program in social psychology and continue his research on culture definition.

² Kathleen Briggs (*khbriggs@umn.edu*) has been the Instructional Coordinator for Introductory Psychology at the University of Minnesota for the past eleven years.

Studies show that people have stronger preferences for items related to the initials in their name. For example, Hoorens and Nuttin (1993) found that consumers prefer brands that have the same initials as their own last names, possibly because people's preference for themselves is extended to their possessions. According to Pelham, Mirenberg, and Jones (2002), even major life decisions can be affected unconsciously by one's last name. People prefer to live in places or work in occupations which have names similar to their own. Thus, the percentage of people with the last name of Louis is greater in St. Louis than in most other cities. Likewise, more Lawrences become lawyers and more Dennis's become dentists. These interesting findings of consequential behavior that may be primed unconsciously by the letters in one's name stimulated further investigation to identify other ways in which names may motivate behavior.

Recently, Carlson, and Conard (2011) found that task performance related to motivation can be affected by one's name. A significant correlation was found between the alphabetic ordering of individuals' last names and how quickly they responded to opportunities to acquire objects, such as a lottery ticket or a free reward. They suggested, for example, that if there were the opportunity of getting a free reward, Mr. Alision will get it faster than Mr. Davison. Interestingly, this motivation can even be found in academic performance. Nelson and Simmons (2007) found a significant correlation between the alphabetic order of students' last names and their relative grades. That is, Mr. Anderson who has A as his last name

initial was found to be more likely to earn an A in a class than Ms. Davis who has D as her last name initial.

Bargh and Chartrand (1999) believed that unconscious judgment was evolutionarily adaptive because conscious judgment and self-regulation capacity are limited resources. Thus, the rapid, efficient and automatic nature of unconscious judgment may have intrinsic adaptive value. People's preference for objects related to their own name is hypothesized to be an example of this unconscious judgment. Pelham and colleagues (2002) stated that people unconsciously make many decisions that are affected by their names due to implicit egotism, a preference for things that are related to oneself. Nevertheless, not everyone accepts these findings readily. Gallucci (2003) inspected more closely the study by Pelham, Mirenberg, and Jones (2002), and pointed out that the method used in the original study was flawed. New analysis on the same data conducted by Gallucci showed that the data seems to not support the idea of a name letter effect.

An unusual opportunity to extend this line of study arose in an Introductory Psychology class in which students are asked to sign up to take exams in one-hour time slots over a two-day period. Study 1 will investigate the impact that the initial of one's last name has on the choice of time slot to take the exam. We hypothesize that there is a positive correlation between the ranking of students' last name initials and the order by which they enter the test system; that is, people whose last name initials are at the start of the alphabet will be more likely to take exams earlier than the people whose names are at the end of the alphabet. In Study 2, we seek to replicate the finding of Nelson and Simmons' study that students whose last names start with an A or B have a higher GPA than students whose names start with C or D. The results will be helpful in testing the validity of their conclusion that the initial of one's last name affects his or her GPA. Consistent with their hypothesis, we hypothesize that there is a negative correlation between the alphabetical ranking of the initial of one's last name initial and his or her GPA.

STUDY 1

Method

Participants

All participants were enrolled in an introductory psychology course at the University of Minnesota. Exams in this course took place over the course of 10 hours on two separate days. We analyzed data from two midterm exams. There were 907 students who took the first midterm and 895 students who took the second midterm. One student was excluded from the analysis of the first exam because the exam was taken at a later date. Twelve students did not take the second exam due to withdrawing from the class or for other reasons.

Procedure

Students were allowed to sign up for any of the exam sessions over the two-day period. We recorded the time they

started the exams. Only the initial of the students' last name was disclosed to the researcher to protect confidentiality; students whose last name began with the initial A were coded as 1, B as 2, C as 3, and so on.

Results and Discussion

The code for the last name initial (1-26) is regarded as a continuous variable in this study. A Spearman rank order correlation between the initial of a student's last name (1-26) and the rank order of when the student started the exam (1-906) was conducted. For exam 1, $r(906) = 0.051$, $p = 0.126$, two tail. For exam 2, $r(895) = 0.039$, $p = 0.242$, two tail.

For both exam 1 and exam 2, the correlation between the last name initials and exam time were close to zero. So, our findings suggest that there is no correlation between the time at which students entered the exam system and the initial of their last names. The non-significant correlation should be interpreted cautiously considering other constraints on students' ability to sign up for exams (such as other classes, work schedules and other life obligations). Therefore, we conclude that there is not a correlation between the initial of one's last name and the preference to take the exams early or late.

STUDY 2

Method

Participants

The participants were 1,952 students who took an introductory psychology class at the University of Minnesota. Among the 1,952 participants, 907 were the also the participants in Study 1. There were 782 male, 1,112 female, and 58 unidentified. Racially, there were 1,448 white-identified participants, 321 Asian identified, 63 black, 55 Hispanic 26 American Indian, 4 Hawaiian, and 35 unidentified.

Procedure

We obtained data on GPA and last name initials for the participants. Their names were coded in the same way as was done for Study 1 to protect student confidentiality. We conducted three analyses. In the first analysis we controlled for gender and ethnicity to replicate the method used by Nelson and Simmons. A chi-square was done to determine whether gender and ethnicity were related to the initial of one's last name and no differences were found among groups. Then a second analysis was done which did not control for gender and ethnicity. Finally, a finer-grained analysis of names was done to confirm the impact of last name initial on GPA.

Results and Discussion

The one-way analysis of covariance (ANCOVA) procedure was used here because this test was used by the study of Nelson and Simmons. The first analysis was a one-way analysis of covariance (ANCOVA) on GPA as a function of three groups (where last names beginning with A and B=1, C and D=2 and E to Z=3), controlling for gender and ethnicity (1 = American Indian, 2 = Asian, 3 = Black,

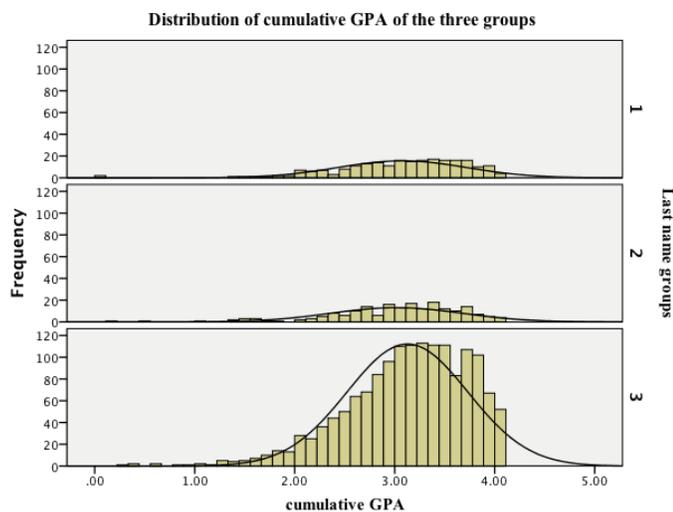


FIGURE 1. Group 1 consists of students whose last name initials are A and B; group 2 consists of students whose last name initials are C and D; group 3 consists of students whose last name initials are from E to Z.

4=Hawaiian, 5=Hispanic, 6=White). In the second analysis, we did a one-way analysis of covariance (ANCOVA) on GPA as a function of the three groups (where A and B=1, C and D=2 and E to Z=3) without controlling for any factors. In the final analysis, we did a one-way analysis of covariance (ANCOVA) on GPA as a function of five groups (where A=1, B=2, C=3, D=4, and E to Z=3).

Then, we did the same analysis after excluding the names with conflicting first and last initial, as Nelson and Simmons (2007) did. This process excludes the students who have first name initials as A, B, C, and D but not the same as that of the last name initial for name group 1 and group 2. This was done so that we can study only the priming effect of last name initial, which is not affected by the first name initial. For example, we would exclude David Andrews and Cassandra Benson because David could be primed by both the letter “D” and “A”, and Cassandra “C” and “B”. This criterion excluded 77 students, resulting in a sample size of 1,875. The result of the first analysis was $F(8,1952) = 1.940$, $p = 0.05$. The findings replicated the findings of Nelson and Simmons’ study; a significant relationship was found between the initial of one’s last name and GPA when controlling for gender and ethnicity.

The chi-square between gender and last name initial group was insignificant: $\chi^2(2, N=1894) = 1.704$, $p = 0.427$. A chi-square between ethnicity and last name initial group was also insignificant: $\chi^2(10, N=1917) = 12.954$, $p = 0.226$. Gender and ethnicity are not associated with the initial of one’s last name. The second analysis which did not control for gender and ethnicity showed a significant result: $F(2, 1952) = 3.334$, $p = 0.036$, which seems to support the results from Nelson and Simmons’ study.

The analysis on the sample that excluded students who may experience “name collision” when controlling for gender and ethnicity showed non-significant results: $F(2, 1875) = 2.850$, $p = 0.058$. The second analysis on this sample, which

did not control for gender and ethnicity, found no significant result: $F(6, 1875) = 1.456$, $p = 0.190$.

The underlying assumption of adjusting the sample for “name collision” is that the first name initial may interfere with the last name initial, disrupting last name initial priming. Therefore, taking away these “name collision” students should improve the significance. However, our findings were inconsistent with this hypothesis.

Our findings do not replicate the findings of the previous literature that hypothesized that students with a last name starting with the initial of A or B will be more likely to get grades of A and B than students whose names start with the initial C or D. In addition, we also found that the distribution of students’ GPAs were skewed, with a clear cut on the right tail because 4.0 is the upper bound of the range of the grade which many students have (Figure 1). Moreover, the overall mean GPA for the 1,952 students was 3.110 ($SD = 0.616$), and the average GPA of group 1 is 3.073, group 2 is 3.015, and group 3 is 3.127. The sample used in Nelson and Simmons’ (2007) study were all M.B.A. students, and the average GPA of the three groups were between 3.32 and 3.38. Due to the competitive nature of an M.B.A. program and the fact that the average GPA of all three groups were significantly higher than the average GPA of all three groups in our sample, we believe that the distribution was more severely skewed in the Nelson and Simmons’ sample. Therefore, this raises a concern of how legitimate it is to conduct an ANCOVA test *per se*, jeopardizing the validity of the findings.

GENERAL DISCUSSION

The results of Study 1 did not provide evidence that one’s last name initial primes his or her behaviors. Students with last names at the start of the alphabet seem no more likely to take exams at the start of an exam period than students with names at the end of the alphabet. The ambiguous results from Study 2 indicate that although there may be a marginally significant correlation between the initial that a student’s last name begins with and his or her GPA, the conclusion should be interpreted cautiously because the statistical tool used requires that GPA is normally distributed, which it is not. Even though the sample is not randomly assigned and the participants were only drawn from one class, we believe the skewed distribution of GPA is not limited by this constraint. This class is an introductory level class, and is taken by students of very diverse backgrounds. Also, studies show that undergraduate students in other institutes have a very similar range of GPA to ours, supporting the representativeness of our sample (Aspelmeier *et al.*, 2012; Campbell *et al.*, 2013). Therefore, the inappropriate usage of the statistical method is a greater concern than the failure to replicate the study. It is likely that the conclusion from previous literature based on the measurement of GPA is controversial, if the distribution of GPA is not normal.

Thus, while the name letter effect may be beguiling, our data suggest that the effect is at best elusive or non-

existent. The last name does not appear to affect the time that students sign up to take the exam, and it is not yet well supported that one's own name can affect the grades he or she earns. Nevertheless, it has been well documented elsewhere that names can affect unconsciously one's behaviors and beliefs. Future research may focus on other domains where name might affect behavior and belief. In particular, people who have East Asian names can directly benefit from the research because these names usually consist of characteristics that carry meaning. Also, future research can examine the relationship between names that carry certain meanings and the impression that the name leaves on others, to examine whether giving a child a "meaningful" name can really exert any influence on the bearer of the name or others.

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