Commentary

Unconscious Applicants

A Systematic Test of the Name-Letter Effect

Frederik Anseel and Wouter Duyck

Ghent University

It is now generally accepted that unconscious processes modulate human behavior. Nelson and Simmons (2007) provided a thought-provoking illustration of this phenomenon. They demonstrated that people's unconscious preferences for the letters in their own names are strong enough that people pursue name-related performance outcomes that they would consciously avoid. For instance, although most students consciously strive to earn As, students whose names begin with *C* and *D* have lower grade point averages (GPAs) than do students whose names begin with *A* and *B*. These findings build on previous research on the name-letter effect (NLE), which is the tendency to evaluate letters in one's name more favorably than other letters. The influence of this implicit preference is striking: It affects important decisions, such as where people choose to live and whom they decide to marry (Pelham, Carvallo, & Jones, 2005). However, NLE studies have not gone unchallenged. As did previous work, Nelson and Simmons's (2007) study suffered from a number of limitations that may compromise its interpretation as demonstrating the NLE.

We conducted a large-scale study to investigate whether people whose names begin with a given letter have a tendency to work for companies with names that begin with the same letter. Our study addresses the limitations of previous work and extends the existing NLE literature in four ways. First, researchers have typically sampled a few letters or names to test for name-initial-congruent outcomes (e.g., is *Jack* more likely to live in *Jacksonville* than in Philadelphia; see Pelham, Mirenberg, & Jones, 2002). As Gallucci (2003) argued, these tests "can yield significant results due to spurious effects and sampling biases" (p. 789), so interpretation of the results as demonstrating the NLE is compromised. Even (or especially) when specific cases are sampled from very large databases (e.g., when the frequencies of two names in two cities are compared in a 2×2 table; Pelham et al., 2002), findings may be an artifact of "luck" in choosing two of the many possible names or letters for testing. The first four of five studies by Nelson and Simmons (2007) also

had this problem: For instance, when testing for an NLE on GPAs, they compared only students with the initials *A* and *B* against those with the initials *C* and *D*. However, although students with the initials *C* and *D* received somewhat lower GPAs (i.e., on average, approximately 3.35, vs. 3.37 for students with initials *A* and *B*), such small variations might also have been observed for other initials. Maybe students with the initial *M* also had lower GPAs than students whose names began with *A* or *B*. In Nelson and Simmons's elegant fifth study, NLEs were obtained with a wider range of initials. Unfortunately, these findings were constrained by the limitations of the laboratory (e.g., results may have been affected by demand characteristics) and lack ecological validity. The study we report in this article offers a convincing supplement to the NLE literature because the design encompassed all letters in a very large sample of real-world behavior: job choice. Thus, our study was not susceptible to the risk of sampling bias present in previous operationalizations of the NLE.

Second, it is important theoretically to establish the boundary conditions for psychological phenomena, particularly when they are provocative and surprising. The best way to explore these boundaries for the NLE is to put them in direct competition with behavior driven by conscious thought. Rational and deliberate thinking processes guide job choice: Applicants are attracted by objective job and organizational attributes, such as salary, job content, and location (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005). Therefore, job choice is a theoretically challenging case for the NLE.

Third, although researchers have claimed that NLEs are stronger for less frequent letters and names, which are more distinctive (Pelham et al., 2005), tests of this hypothesis have not confirmed it. Jones, Pelham, Mirenberg, and Hets (2002) even found a numerical tendency toward larger NLEs for names with more frequent initials. The design of the present study allowed a more comprehensive test of this hypothesis, so that the study might contribute to a better theoretical understanding of the mechanisms involved in the NLE.

Fourth, given the lack of large and systematic data sets with accurate a priori frequency estimates, reliable estimates of the size of the NLE on real-world behavior are not available. From a conceptual standpoint, such estimates are crucial for comparing

Address correspondence to Frederik Anseel, Department of Personnel Management, Work and Organizational Psychology, Ghent University, Henri Dunantlaan 2, B-9000 Ghent, Belgium, e-mail: frederik.anseel@ugent.be.
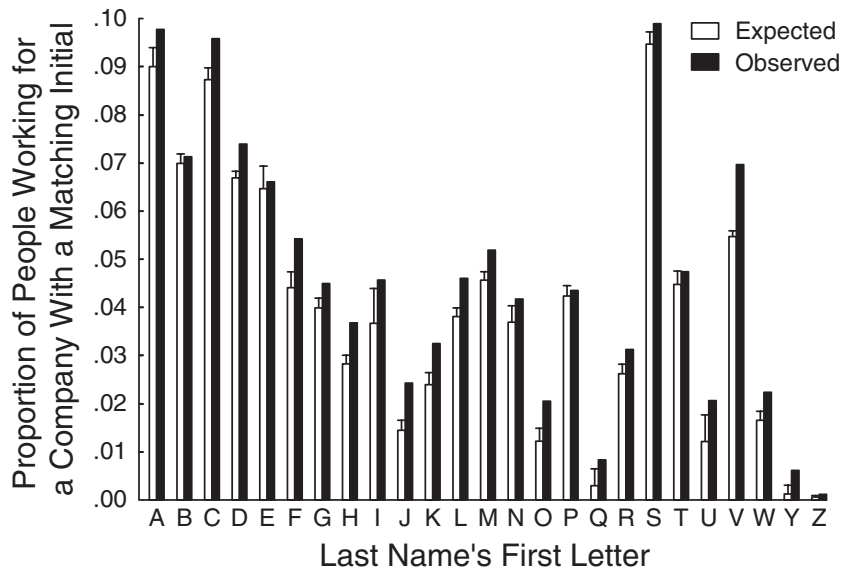
Fig. 1. Proportion of expected and observed matches between employees' and employing companies' initials as a function of the initial letter of the employee's last name ($N = 582{,}007$). Expected matches for each initial letter of employee names were calculated on the basis of the a priori probability (across all employees) that this letter occurred as a company name's first letter. The height of each error bar indicates the proportion of matches k for which $P(X \geq k) < .05$ under the binomial distribution $B(k\,|\,n,p)$, where k = the number of name-letter matches, n = the number of employee names beginning with that letter, and p = the probability of that letter being the first letter of a company's name.

the impact of unconscious processes with the impact of other (rational) predictors of behavior.

METHOD

From the Belgian Ministry of Social Security, we obtained a large database containing one third of all Belgian full-time employees working in the private sector ($N = 582{,}007$). Entries were randomly selected, excluding self-employed people, who are likely to work for name-related companies. Because of privacy concerns, only the first three letters of each employee's last name and the name of his or her company could be provided. We calculated how frequently every letter of the alphabet occurred as the initial letter of an employee name and of a company name. Then, we calculated the expected number of matches between these initial letters, based on these a priori probabilities (see Fig. 1). For instance, given that 2.59% of employee names started with A and that 9.00% of company names started with A, there should have been 1,357 employees ($582{,}007 \times 0.0900 \times 0.0259$) who had a name starting with A and worked for a company whose name also started with A.

RESULTS AND CONCLUSIONS

A paired-samples t test showed that the difference between the raw numbers of expected and observed name-letter matches (see Fig. 1) was significant across letters, $t(25) = 2.82$, $p < .01$. More

important, the observed number of matches was higher than expected for every letter but X (for which both values were equal to zero). Additionally, multiple regression analysis showed that 53.2% of the variance in the relative size of these NLEs could be explained by letter frequency for employees ($p < .05$), letter frequency for companies ($p < .15$), and their interaction ($p < .01$), with less frequent letters yielding larger NLEs. Thus, increased letter frequency weakens the NLE.

Overall, there were 4,290 more name-letter matches than the expected number of 31,952. This surplus was equivalent to 11.84% of the observed matches. Hence, for about one in nine people whose initials matched their company's initial, choice of employer seems to have been influenced by the fact that the letters matched. Although the a priori probability of matching letters was quite small, 0.74% of the tested sample exhibited name-letter matches that were attributable to the NLE. Even in a small country like Belgium, this corresponds to more than 12,000 employees working in the private sector.

In conclusion, we have demonstrated that people are more likely to work for companies with initials matching their own than to work for companies with other initials. This implicit influence on human behavior was observed for each letter of the alphabet, but was more pronounced for rarer initials. Our finding supports and supplements the original claims of Nelson and Simmons (2007), but conveys a more optimistic message: Monikers may not only give you maladies; they may also get you a job!

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