

It Pays to Be Herr Kaiser: Germans With Noble-Sounding Surnames More Often Work as Managers Than as Employees

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Abstract

In the field study reported here ($N = 222,924$), we found that Germans with noble-sounding surnames, such as *Kaiser* (“emperor”), *König* (“king”), and *Fürst* (“prince”), more frequently hold managerial positions than Germans with last names that either refer to common everyday occupations, such as *Koch* (“cook”), *Bauer* (“farmer”), and *Becker/Bäcker* (“baker”), or do not refer to any social role. This phenomenon occurs despite the fact that noble-sounding surnames never indicated that the person actually held a noble title. Because of basic properties of associative cognition, the status linked to a name may spill over to its bearer and influence his or her occupational outcomes.

Keywords

associative processes, organizations, social cognition

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In career outcomes, small factors can make the difference. Moreover, characteristics about a person that logic dictates should not make a difference often do. For instance, individuals who are physically taller are significantly more likely to attain high-status, well-paying jobs (Harper, 2000; Loh, 1993). In addition, people with facial features that imply dominance are more likely than others to have successful leadership careers in business and law (Rule & Ambady, 2011). Such findings fuel the common intuition that success in organizations is often about appearances and superficial characteristics rather than merit.

Despite the frequency with which names are used in daily work life, it has not been studied whether the semantic meaning of names may significantly affect a person’s professional future. In the study reported here, we demonstrated that Germans with last names that describe a noble position in society, such as *Kaiser* (“emperor”), *König* (“king”), or *Fürst* (“prince”), are more frequently found in managerial positions than Germans with last names that either refer to common occupations, such as *Koch* (“cook”), *Bauer* (“farmer”), and *Becker/Bäcker* (“baker”), or do not refer to any social role. This occurs even though noble-sounding last names do not imply that a person is in fact of noble heritage.

The tendency for noble-sounding names to predict success at attaining managerial roles may result from biases in status conferral driven by basic processes of associative thinking (Gawronski & Bodenhausen, 2006; Strack & Deutsch, 2004). Just as a metaphorical association between physical height and high social status facilitates the intuition that a taller person is a better fit for a position as CEO, a person with a name strongly linked to a high-status role may be seen as more worthy of occupying a managerial position than a person whose name is linked to a low-status role or to no role at all.

Prior research has shown that names can influence important outcomes. Names often signify a person’s gender or membership in a stigmatized minority group and therefore trigger discrimination in selection, a process that can occur unconsciously (Ayres, 2001; Bertrand & Mullainathan, 2004; Brescoll, Dawson, & Uhlmann, 2010; Rooth, 2010). Individuals can also suffer penalties from having names that are uncommon in the general

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population (Busse & Seraydarian, 1978; Kalist & Lee, 2009; Mehrabian, 1992) or are counter-stereotypical for their gender (Figlio, 2007). In contrast, names that are perceptually fluent elicit positive affect, which can benefit their bearer: For example, stocks with names and ticker codes that are easy to process receive a temporary boost after their entry into the stock market (Alter & Oppenheimer, 2006), products with easier-to-pronounce names seem safer to consumers (Song & Schwarz, 2009), and persons with names that are easier to pronounce are better liked and more successful as political candidates and lawyers (Laham, Koval, & Alter, 2012). Finally, studies on implicit egotism have found that individuals prefer brands and make loans and charitable donations based in part on the similarity between the letters in their own name and the target's name (Brendl, Chattopadhyay, Pelham, & Carvallo, 2005; Chandler, Griffin, & Sorensen, 2008; Galak, Small, & Stephen, 2011).

The present research focused on the direct semantic meanings of last names (i.e., on a *name-meaning effect* rather than on a *name-pronunciation effect* or *name-letter effect*). We contrasted last names that describe noble roles in society with those referring to ordinary occupations or without reference to a role in society. That a noble-sounding name may give its bearer an edge in professional contexts is consistent with both basic principles of associative thinking and prior research on biases in status conferral. Consider, for instance, that a German with the last name *König* is habitually addressed as “king” by his workplace colleagues, potentially conditioning a psychological association between Herr König and high status. This association may in turn influence the extent to which he is viewed as well-suited for managerial roles.

In Germany, a substantial proportion of common surnames refer to occupations (Kolheim & Kolheim, 2008). Further, in contemporary German business culture, people customarily address each other by last name, which provides an excellent opportunity to test whether having a noble versus an ordinary-occupation surname predicts whether a person ends up as a manager or a regular employee. In German-speaking areas, family names were introduced progressively from the 12th century onward and were based on identifiers of a person such as parents' first names (e.g., Friedrich), people's origins (e.g., *Berger* or “from the hill”), occupations, or personal attributes. Among the 100 most common last names in Germany today, the largest subgroup (42%) originates from names implying occupations. People whose name is *Koch*, *Bauer*, or *Becker/Bäcker* most likely had an ancestor who centuries ago worked as a cook, farmer, or baker, respectively. However, in Germany today, over 26,000 adults are named *König*, and as their frequency hints, their ancestors were never actual kings; such names were given generations ago to mock people who were

boastful or overly proud. Other individuals with the surnames *König* and *Kaiser* earned their “title” in local competitions, for instance, becoming a champion marksman (*Schützenkönig*) and subsequently being referred to by the shortened *König*. In other cases, noble names indicated a subordinate relationship, for instance, *Fürst* may refer to somebody who did lower level work for an actual aristocrat (Kolheim & Kolheim, 2008).

A noble-sounding surname could make a difference as its owner is frequently associated with a social role of high standing, whereas surnames referring to common ordinary occupations, such as *Koch* and *Bauer*, may be associated with comparatively lower status. Given that this is due in part to an association with a common everyday occupation, any effects should diminish when the job the name refers to has become so infrequent (e.g., *Schäfer* or “shepherd”) that it is now thought of as “just a name” rather than a real occupation. We therefore hypothesized that the impact of a name derived from an occupation is based in part on the prevalence of that occupation in contemporary German society. Indeed, we expected little to no negative effect of names that are no longer associated with common occupations (e.g., *Wagner* or “wagonmaker”). Likewise, we expected no effect from German names based on attributes that have never referred to any social role, such as *Winter* (“winter”) or *Stein* (“stone”). As such names have no consistent status implications, they should not influence the odds of a person becoming a manager.

Method

Sample and data

We obtained data on people's last names and occupations from the professional networking Web site Xing, the German equivalent of LinkedIn. We collected data on individuals with the 100 most common German last names, excluding surnames derived from first names, because these could not be distinguished from actual first names in our data set. Further, on the basis of a list of German noble titles, we included all last names that are noble sounding (i.e., those whose semantic meaning refers to a noble title, such as “king” or “emperor”) even if they were not part of the 100 most common names. The final sample consisted of data from 222,924 employees and managers with 84 different last names. Table 1 lists the last names from which our sample was drawn, as well as their origins and meanings.

Dependent variable

Our binary dependent variable was whether individuals with a particular last name worked as a manager (coded 1)

Table 1. Derivations and Meanings of German Last Names in the Sample

From occupations		From noble titles		From attributes and origins		From first names	
Name	Meaning	Name	Meaning	Name	Meaning	Name	Meaning
Bauer	farmer	Baron	baron	Beck	n/a	Albrecht	n/a
Baumann	builder	Edler	nobleman	Berger	hill	Arnold	n/a
Becker	baker	Fürst	prince	Böhm	bohemian	Dietrich	n/a
Bergmann	miner	Graf	earl	Brandt	burned	Engel	angel
Fischer	fisherman	Herzog ^a	duke	Braun	brown	Frank	Franconian (also a first name)
Hoffmann	leaseholder	Junker	sir	Busch	bush	Franke	Franconian (also a first name)
Hofmann	leaseholder	Kaiser	emperor	Fuchs	fox		
Huber	farmer	König	king	Groß	tall/big		
Jäger	hunter	Kurfürst	electoral prince	Haas	rabbit	Friedrich	n/a
Keller	basement	Markgraf	marquise	Hahn	cock	Günther	n/a
Koch	cook	Ritter	knight	Horn	horn	Hartmann	n/a
Köhler	charcoal burner			Jung	young	Heinrich	n/a
Krämer	chandler			Klein	small	Herrmann	n/a
Krüger	innkeeper			Kraus	curly	Lorenz	n/a
Lehmann	vassal			Krause	curly	Ludwig	n/a
Maier	leaseholder			Kühn	keen	Martin	n/a
Mayer	leaseholder			Lang	long	Otto	n/a
Meier	leaseholder			Lange	long	Peters	n/a
Meyer	leaseholder			Neumann	new man	Seidel	n/a
Möller	miller			Pohl	a person from Poland	Simon	n/a
Müller	miller			Roth	red	Thomas	n/a
Pfeiffer	musician			Sauer	bitter	Walter	n/a
Richter	judge			Schwarz	black	Werner	n/a
Schäfer	shepherd			Sommer	summer	Wolf	wolf
Schmid	smith			Stein	stone		
Schmidt	smith			Vogel	pigeon		
Schmitt	smith			Weiß	white		
Schmitz	smith			Winter	winter		
Schneider	tailor			Wolff	wolf		
Scholz	sheriff						
Schreiber	clerk						
Schröder	cutter						
Schubert	shoemaker						
Schulte	sheriff						
Schulz	sheriff						
Schulze	sheriff						
Schumacher	shoemaker						
Schuster	shoemaker						
Vogt	bailiff						
Voigt	bailiff						
Wagner	wagonmaker						
Weber	weaver						
Winkler	chandler						
Ziegler	brickmaker						
Zimmermann	carpenter						

Note: Names included in the analysis are printed in bold. Surnames resembling first names were excluded, because first and last names could not be distinguished in our sample. “Frank” and “Franke” are derived from geographic origins but are also found as first names and were therefore excluded. All noble-sounding names in the German language were included, though not all of them were among the 100 most frequent names. Translations are based on the pronunciation of the name rather than its spelling because the spellings of some words have changed slightly over time. n/a = not applicable.

^aThe percentage of managers with the noble name *Herzog* (“duke”) was unusually high (33%). To avoid having this outlier favorably drive our hypothesized effects, we removed this name from the final analysis.

or an employee (coded 0). We used only observations from individuals working in the private sector, because human-resource practices and policies in the public sector differ (Boyne, Jenkins, & Poole, 1999), and in Germany, promotions in the public sector are often based on seniority rather than on personal characteristics (Richter, 1999).

Independent variables

Noble-sounding last names. Our main independent variable was noble-sounding last names. We used a list of noble titles in Germany (Hayn, 1825/2008) and searched the database for records of people whose names resemble such noble titles. Of those 16 titles, we found that 11 also appear as last names. Of these 11, the percentage of managers with the name *Herzog* (“duke”) was unusually high (33%), so we excluded that name from analysis so that this outlier would not favorably drive our hypothesis. This variable was dummy-coded as either noble sounding (1) or non-noble sounding (0).

Last names referring to ordinary occupations. Our second independent variable was last names referring to ordinary occupations and whether those names still raise associations with that occupation. Of the 100 most common German last names, we identified those that were once derived from a profession (Kolheim & Kolheim, 2008). These last names were provided to three native German speakers who were unaware of the purpose of the study. These independent raters were asked, “On first hearing, does this word sound like a profession?” Twenty-one out of 49 last names were associated with occupations. Raters differed in their assessment of 3 last names, and disagreement was coded as not consistently associated with an occupation. Many occupations are antiquated, such as *Wagner* (“wagonmaker”), a mechanic for wooden wheels and wagons, and their root is no longer recognized. Variables were dummy-coded to express whether or not contemporary Germans consistently associate the word with an occupation.

Prevalence of ordinary occupations today. Our third independent variable quantified the extent to which an occupation is commonly found in German society today, which may further indicate to what degree a particular last name is still associated with that occupation or is now considered “just a name.” We obtained these numbers from the 2011 official labor statistics of the Federal Agency for Labor in Germany (Bundesagentur für Arbeit, 2012). For more specialized professions, such as shepherd (*Schäfer*) or baker (*Bäcker*), frequencies were obtained from the respective guilds. Data were entered in units of tens of thousands.

Neutral last names. Also included were the remaining last names from the top 100 list that are based on German words derived from attributes and origins rather than from occupations, such as *Winter* and *Stein* ($n = 29$). We could not include names that were derived from or used as first names ($n = 22$), such as Frank/Franke, because our field data did not allow us to distinguish first names from last names.

Control variables. As control variables, we included the number of letters and the number of syllables in the name, as less complex and more familiar names may be processed quicker and liked more. For each name, we further controlled for the orthographic Levenshtein distance 20 (OLD20; Yarkoni, Balota, & Yap, 2008), a measure of lexical decision and pronunciation ease based on the last name’s similarity to the 20 closest other words in the German CELEX lexical database (Baayen, Piepenbrock, & Gulikers, 1995). Note that basing our sample on common German last names likely restricted word complexity, made it difficult to properly test the effects of having an uncommon name, and likewise diminished effects of processing fluency, given that all of the names are likely familiar and easy to pronounce for most native German speakers. These variables are thus best considered control variables rather than independent tests of the effects of processing fluency or name fluency. Frequency of names in our sample correlated highly, $r = .93$, $p < .001$, with the frequency of each name in the general population (Deutsche Telekom, 2012), which we therefore did not include as a separate control variable.

Statistical analysis

We analyzed our data using hierarchical linear modeling (HLM; Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2013). Models were estimated using the program HLM 7 with individuals (Level 1) nested within names (Level 2; Gallucci, 2003). Given the binary outcome for each individual as working either as manager (coded 1) or employee (coded 0), we specified a Bernoulli distribution. We used grand-mean-centered predictors and restricted maximum-likelihood models with robust standard errors.

Results

Descriptive statistics for and correlations between key variables are presented in Table 2, and results from HLM regression models are shown in Table 3. Model 1 showed that the odds are higher that individuals with noble-sounding last names will work as managers rather than as employees (odds ratio, or $OR = 1.125$, $p < .01$). In contrast, whether a name was derived from an occupation

Table 2. Descriptive Statistics for and Correlations Between Variables in the Study

Variable	<i>M</i>	<i>SD</i>	Correlations							
			1	2	3	4	5	6	7	
1. Occupation level (managers = 1; employees = 0)	.17	.02	—							
2. Noble names (noble sounding = 1; non-noble sounding = 0)	.12	.33	.56**	—						
3. Number of letters in name	5.90	1.47	-.01	-.03	—					
4. Number of syllables in name beyond word stem	0.92	0.68	-.13	.05	.75**	—				
5. OLD20	2.08	0.56	.22**	.14	.71**	.49**	—			
6. Name derived from ordinary occupation (yes = 1; no = 0)	.65	.48	.09	.27*	.50**	.43**	.39**	—		
7. Name recognized as ordinary occupation (yes = 1; no = 0)	.25	.44	-.20	-.21	.36*	.27*	.11	.42**	—	
8. Prevalence of ordinary occupation in 10,000	0.94	5.52	-.13	-.06	-.11	-.12	-.12	.12	.30**	—

Note: $N = 84$ last names for all variables. OLD20 = orthographic Levenshtein distance 20 (Yarkoni, Balota, & Yap, 2008). * $p < .05$. ** $p < .01$.

($OR = 1.004$, n.s.) and whether it is still recognized as an occupation ($OR = 0.978$, n.s.) were nonsignificant predictors of career outcomes, as shown in Models 2 and 3, respectively. However, as Model 4 indicated, the prevalence with which an ordinary occupation still exists today in German society is a significant negative predictor of individuals with that name working as managers ($OR = 0.998^1$, $p < .05$). This indicates that the more common the actual ordinary occupation that a last name such as *Koch* (“cook”) or *Bauer* (“farmer”) refers to, the lower the odds that individuals with that name will work as managers rather than as employees. In Model 5, we found that adding our control variables left effect sizes for our hypothesized variables largely unchanged. The results therefore indicate that the odds are higher for individuals with noble-sounding names than for individuals without noble-sounding names to attain positions as managers (see Fig. 1). However, the effect of an ordinary-occupation name appears to depend on the extent to which the occupation is still prevalent in German society. Although our field data leave some ambiguities of interpretation, this is consistent with our theorizing that when an occupation no longer exists or barely exists (e.g., shepherd), the name in question becomes “just a name” and no longer creates any negative implication that may affect the person’s career.

Discussion

In the field study reported here, we found that Germans with noble-sounding surnames, such as *Kaiser* (“emperor”), *König* (“king”), and *Fürst* (“prince”), are overrepresented in managerial positions. This phenomenon occurs despite the fact that noble-sounding names never indicate that the person actually held a noble title.

In contrast, Germans whose surnames refer to frequent ordinary occupations, such as *Koch* (“cook”), *Bauer* (“farmer”), and *Becker/Bäcker* (“baker”), are slightly underrepresented in managerial positions. Expressed descriptively, among Germans with noble-sounding names, we found that over two (2.7%) more managers per hundred people than expected, on average. In contrast, among Germans with last names referring to the four most prevalent ordinary occupations, we found one (1.1%) manager less than expected per hundred people.

Our investigation relied on a large sample ($N = 222,924$) and used rigorous statistical tests (Gallucci, 2003). However, the nature of field data does not allow us to draw clear causal inferences, and we examined name-meaning effects in a single society. Future work should therefore employ an experimental methodology and focus on the semantic implications of names in further countries. Of particular interest, future studies should assess whether noble-sounding surnames are less likely to affect career outcomes in cultures in which coworkers commonly refer to each other by their first name (e.g., the United States), and the person’s surname is therefore less salient. Noble-sounding surnames may be more predictive of attaining managerial roles in formal cultures, in which individuals customarily address one another by their last name.

Because of basic properties of associative cognition, the status associated with a name may implicitly spill over to its bearer, influencing the status accorded to that person and consequential life outcomes, such as his or her career advancement. Although potential mechanisms are likely to be mutually constitutive, future research should examine some of the processes by which name-meaning effects may occur. The status associated with a given name could influence judgments of the person’s

Table 3. Hierarchical Linear Modeling Results for Variables Predicting Whether Individuals Worked as Managers or Employees

Predictor	Model 1			Model 2			Model 3			Model 4			Model 5		
	<i>b</i>	<i>SE</i>	<i>OR</i>												
Intercept	-1.612	0.011	0.200**	-1.619	0.011	0.198**	—	—	—	-1.618	0.011	0.198**	-1.610	0.010	0.200**
Control variables															
Number of letters in name	—	—	—	—	—	—	—	—	—	—	—	—	0.012	0.014	1.012
Number of syllables in name	—	—	—	—	—	—	—	—	—	—	—	—	-0.057	0.023	0.945*
OLD20	—	—	—	—	—	—	—	—	—	—	—	—	0.020	0.029	1.020
Key variables															
Noble-sounding name	0.118	0.036	1.125**	—	—	—	—	—	—	—	—	—	0.127	0.040	1.135**
Name derived from ordinary occupation	—	—	—	0.004	0.024	1.004	—	—	—	—	—	—	0.001	0.027	1.001
Name recognized as ordinary occupation	—	—	—	—	—	—	-0.022	0.024	0.978	—	—	—	0.008	0.027	1.008
Prevalence of ordinary occupation	—	—	—	—	—	—	—	—	—	-0.002	0.000	0.998*	-0.003	0.001	0.997**

Note: Models were estimated with individuals (Level 1; $N = 222,924$) nested within names (Level 2; $N = 84$). Managers were coded 1, and employees were coded 0. *OR* = odds ratio. OLD20 = orthographic Levenshtein distance 20 (Yarkoni, Balota, & Yap, 2008).

* $p < .05$. ** $p < .01$.

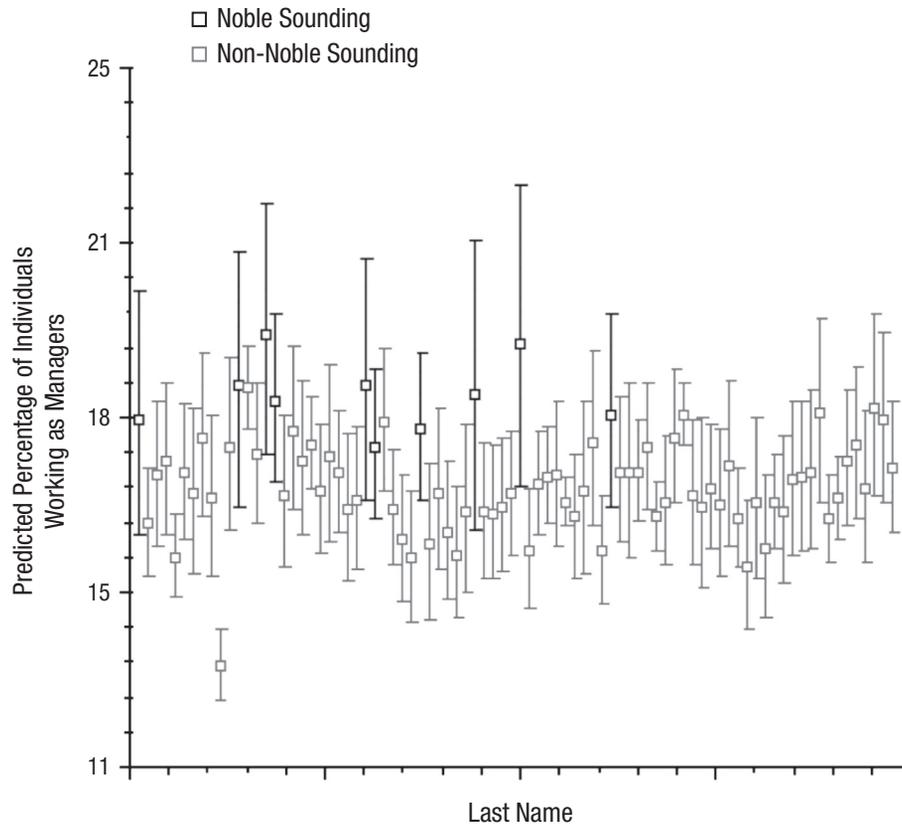


Fig. 1. Predicted proportion of individuals working as managers for each of 84 surnames from A (left) to Z (right). Ten of these names were noble sounding, and 74 were non-noble sounding. Error bars show 95% confidence intervals.

traits or shape interpretations of his or her workplace performance. It is also possible that bearing a noble name shapes self-perceptions, which may lead people with such names as *Kaiser*, *König*, and *Fürst* to actively pursue high-status jobs. Many of the subtle ways in which names may shape professional outcomes have yet to be investigated.

Author Contributions

R. Silberzahn and E. L. Uhlmann developed the study concept and theoretical framing. R. Silberzahn designed the study and collected and analyzed the data. The abstract, introduction, and Discussion section of the manuscript were written by E. L. Uhlmann, and the Method and Results sections were written by R. Silberzahn, with each author editing the other's material. Both authors approved the final version of the manuscript for submission.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

Note

1. Although this *OR* is close to 1, this effect is nevertheless significant because the variable had a large range ($M = 0.94$, $SD = 5.52$).

References

- Alter, A. L., & Oppenheimer, D. M. (2006). Predicting short-term stock fluctuations by using processing fluency. *Proceedings of the National Academy of Sciences, USA*, *103*, 9369–9372.
- Ayres, I. (2001). *Pervasive prejudice? Unconventional evidence of race and gender discrimination*. Chicago, IL: University of Chicago Press.
- Baayen, R. H., Piepenbrock, R., & Gulikers, L. (1995). *The CELEX lexical database* [CD-ROM]. Philadelphia, PA: Linguistic Data Consortium.
- Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, *94*, 991–1013.
- Boyer, G. A., Jenkins, G., & Poole, M. (1999). Human resource management in the public and private sectors: An empirical comparison. *Public Administration*, *77*, 407–420.

- Brendl, C. M., Chattopadhyay, A., Pelham, B. W., & Carvallo, M. (2005). Name letter branding: Valence transfers when product specific needs are active. *Journal of Consumer Research*, *32*, 405–415.
- Brescoll, V. L., Dawson, E., & Uhlmann, E. L. (2010). Hard won and easily lost: The fragile status of leaders in gender-stereotype-incongruent occupations. *Psychological Science*, *21*, 1640–1642.
- Bundesagentur für Arbeit. (2012). *Arbeitsmarkt in Zahlen Beschäftigungsstatistik* [Numerical overview of occupations in the German labor market]. Nürnberg, Germany: Bundesagentur für Arbeit.
- Busse, T. V., & Seraydarian, L. (1978). Frequency and desirability of first names. *Journal of Social Psychology*, *104*, 143–144.
- Chandler, J., Griffin, T. M., & Sorensen, N. (2008). In the “I” of the storm: Shared initials increase disaster donations. *Judgment and Decision Making*, *3*, 404–410.
- Deutsche Telekom. (2012). *National telephone directory*. Retrieved from <http://www.dastelefonbuch.de>
- Figlio, D. (2007). Boys named Sue: Disruptive children and their peers. *Education Finance and Policy*, *2*, 376–394.
- Galak, J., Small, D., & Stephen, A. (2011). Micro-finance decision making: A field study of prosocial lending. *Journal of Marketing Research*, *48*, S130–S137.
- Gallucci, M. (2003). I sell seashells by the seashore and my name is Jack: Comment on Pelham, Mirenberg, and Jones (2002). *Journal of Personality and Social Psychology*, *85*, 789–799.
- Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, *132*, 692–731.
- Harper, B. (2000). Beauty, stature and the labour market: A British cohort study. *Oxford Bulletin of Economics and Statistics*, *62*, 771–800.
- Hayn, B. (2008). *Titulaturen, adressen, ressort- & rangverhältnisse königl. preuß. staatsbehörden, staatsbeamten, ordensritter* [Titles, addresses, department, and rank relationships of royal Prussian state authorities, civil servants, and Teutonic knights] (5th ed.), Berlin, Germany: Hayn. (Original work published 1825)
- Kalist, D. E., & Lee, D. Y. (2009). First names and crime: Does unpopularity spell trouble? *Social Science Quarterly*, *90*, 39–49.
- Kolheim, R., & Kolheim, V. (2008). *Duden lexikon der familienamen: Herkunft und bedeutung von 20 000 nachnamen* [Duden dictionary of surnames: Origin and meaning of 20,000 last names] (1st ed.). Mannheim, Germany: Bibliographisches Institut.
- Laham, S., Koval, P., & Alter, A. L. (2012). The name pronunciation effect: Why people like Mr. Smith more than Mr. Colquhoun. *Journal of Experimental Social Psychology*, *48*, 752–756.
- Loh, E. S. (1993). The economic effects of physical appearance. *Social Science Quarterly*, *74*, 420–438.
- Mehrabian, A. (1992). Interrelationships among name desirability, name uniqueness, emotion characteristics connoted by names, and temperament. *Journal of Applied Social Psychology*, *22*, 1797–1808.
- Raudenbush, S. W., Bryk, A. S., Cheong, Y. F., Congdon, R., & du Toit, M. (2013). HLM 7 for Windows [Computer software]. Skokie, IL: Scientific Software International.
- Richter, G. (1999). Innere Kündigung: Modellentwicklung und empirische befunde aus einer untersuchung im bereich der öffentlichen verwaltung [Mental resignation: Model development and empirical findings from a study in the field of public administration]. *Zeitschrift für Personalforschung*, *13*, 113–138.
- Rooth, D.-O. (2010). Automatic associations and discrimination in hiring: Real world evidence. *Labour Economics*, *17*, 523–534.
- Rule, N. O., & Ambady, N. (2011). Judgments of power from college yearbook photos and later career success. *Social Psychological & Personality Science*, *2*, 154–158.
- Song, H., & Schwarz, N. (2009). If it's difficult to pronounce, it must be risky: Fluency, familiarity, and risk perception. *Psychological Science*, *20*, 135–138.
- Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, *8*, 220–247.
- Yarkoni, T., Balota, D., & Yap, M. (2008). Moving beyond Coltheart's *N*: A new measure of orthographic similarity. *Psychonomic Bulletin & Review*, *15*, 971–979.