Name-Letter Preferences for New Last Name and Abandoned Birth Name Initials in the Context of Name-Change via Marriage

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Abstract. Although the name-letter task is one of the most frequently used measures of implicit self-esteem, no research has examined whether the name-letter effect emerges for new last name initials and abandoned birth name initials in the context of marriage. Additionally, no systematic investigation has examined the robustness of the name-letter effect across age cohorts. In a large heterogeneous sample (N = 1,380), reliable letter preferences were found for new last name initials and for abandoned birth name initials, even after 20 years of marriage. In addition, robust name-letter effects emerged across all assessed age cohorts. Implications for the implicit self-esteem literature regarding the robustness of the name-letter task for married and nonmarried individuals of all post-pubescent ages are discussed.

Keywords: name-letter task, implicit self-esteem, initial preference task, marriage

The name letter task (NLT) is based on the pioneering work of Nuttin (1985) who first discovered the *name-letter effect*, which is the tendency for people to prefer the letters included in their own names more than letters not included in their names. Remarkably, the name-letter effect has been shown to be quite robust cross-culturally and has been used successfully as an index of implicit self-esteem, which has been linked to many important self-esteem related phenomena. However, no research has examined whether the name-letter effect emerges for new and abandoned birth name initials in the context of name-change via marriage. In addition, no systematic investigation has examined whether the name-letter effect generalizes across different age cohorts. The current research aimed to fill these gaps in the literature.

Introduction

Remarkably, the name-letter effect has been documented in at least 15 different countries and across six different alphabets (Hoorens, Nuttin, Erdélyi-Herman, & Pavakanun, 1990; Jones, Pelham, Mirenberg, & Hetts, 2002; Kitayama & Karasawa, 1997; Nuttin, 1987). Subsequent research has found that this preference is strongest for one's

initial letters (Kitayama & Karasawa, 1997; Koole, Dijksterhuis, & van Knippenberg, 2001). Importantly, these letter preferences are elicited without individuals' conscious awareness that self-evaluations are being assessed (Koole et al., 2001; Nuttin, 1985; but see Krizan, 2008). Crucially, the name-letter effect cannot be reduced to mere exposure to particular letters (Hoorens & Todorova, 1988; Jones et al., 2002). For example, Hoorens and Todorova (1988) showed that Bulgarians who first learned to write using the Cyrillic alphabet, nonetheless showed a name-letter preference using the Roman alphabet, although they became acquainted with that alphabet only many years later. Furthermore, Jones et al. (2002) demonstrated that initial-letter preferences emerge even for individuals whose initials involve relatively rare letters (e.g., X or Z).

Importantly, these name-letter preferences have been argued to reflect a typically positive attitude toward the self (Greenwald & Banaji, 1995; Hoorens, 1990; Koole & Pelham, 2003; Nuttin, 1985) and tap into self-evaluations and intuitions about the self that may be difficult to articulate (Nisbett & Wilson, 1977) or even introspectively inaccessible (for a review see Koole & DeHart, 2007). Given these theoretical positions, name-letter preferences assessed with the NLT have been argued to be a valid marker of implicit (i.e., automatic, unconscious, habitual) self-esteem (ISE).

Indeed, the use of the NLT to measure ISE has shed light on various psychological phenomena including depression (Franck, DeRaedt, & De Houwer, 2007), physical health (Shimizu & Pelham, 2004), social acceptance (Baccus, Baldwin, & Packer, 2004), and defensiveness (Schröder-Abé, Rudolph, Wiesner, & Schütz, 2007). Name-letter preferences have proven to be a theoretically valuable tool to uncover deeper insights into self-esteem-related psychological phenomena.

The Present Research

Although a plethora of research has examined name-letter preferences, surprisingly no research has examined the dynamics of name-letter preferences in the context of individuals who change their last names through marriage. This gap in the literature may reflect the fact that virtually all studies examining name-letter preferences have used undergraduate samples, which typically contain few married individuals. To address this gap, the current work investigated name-letter preferences in individuals who change their last name through marriage. We examined two questions: (1) whether letter preferences emerged for the initial of new last names and (2) whether the initial of (abandoned) birth names continue to demonstrate a preference effect. To gain deeper insights into these two questions, we also probed whether initial preferences for new last names and birth names depended on the length of marriage. These open questions are important because it is vital to know whether the NLT is also valid for individuals who change their last name through marriage.

In addition, the current research also addresses another gap in the NLT literature regarding the robustness of nameletter preferences across different age cohorts. Although the name-letter effect has been found in 15 different countries and across six different alphabets (Hoorens et al., 1990), to our knowledge, there has not been a systematic investigation of name-letter preferences across age cohorts. This question is important because it is crucial to empirically confirm that name-letter preferences are robust across all age cohorts, rather than simply assuming this to be the case.

Past research and theorizing guided our expectations regarding answers to the current research questions. Concerning the question of the name-letter effect extending to new last name initials, research on so-called *associative self-anchoring* has shown that the act of owning certain objects (e.g., a postcard) is sufficient to create an association between the self and the object such that an individual's implicit self-evaluation associatively transfers to the object (Gawronski & Bodenhausen, 2006; Gawronski, Bodenhausen, & Becker, 2007). Given that the act of adopting

a new last name can be seen as a person now "owning" that new name, this perspective predicts that initial preferences for one's new last name initial should emerge quickly within the first years of marriage. Also consistent with this position is Nuttin's (1987) early theorizing on the name-letter effect, which emphasized the affective consequences of the mere ownership of arbitrary letters that comprised one's name. With respect to the question of abandoned birth names, evaluative conditioning (EC) research shows that neutral stimuli (the conditioned stimulus; CS) can acquire the valence of liked or disliked stimuli (the unconditioned stimulus; US) when the US is repeatedly paired with the CS (De Houwer, Thomas, & Baeyens, 2001), and that once formed, EC effects generally show resistance to extinction (Baeyens, Crombez, Van den Bergh, & Eelen, 1988). Applied to our investigation, the self can be seen as the US with the (arbitrary) name initials as the CS. Hence, this perspective suggests that the valence of the self (US) will correspondingly be reflected in a person's birth name initial (CS) and will keep its acquired valence even if it is presented in isolation (De Houwer et al., 2001; Walther, Nagengast, & Trasselli, 2005). Finally, concerning the generality of the name-letter effect across age cohorts, we contend that it makes sense theoretically to expect that the name-letter effect would generalize to all postpubescent age cohorts, given that the reviewed research on associative self-anchoring, mere ownership, and evaluative conditioning suggests that the name-letter effect emerges as a result of relatively nondeliberate automatic processes.

To investigate the current research questions, we conducted a large scale study involving a large heterogeneous sample $(N = 1,380)^1$. We examined preferences for the initials of new last name and birth names of married participants who changed their last name through marriage. In addition, we examined the robustness of letter preferences across age cohorts, by assessing first and last name initial preferences for individuals who were part of different age cohorts.

Method

Participants

The sample consisted of 1,380 participants (primarily German-speaking volunteers from Austria and Germany), of whom 38.4% had changed their last name through marriage. Participants were on average 35.6 years old (range: 13–86 years; SD = 15.46) and 66.2% were women. Mean age at the day of marriage was 25.7 years (range 16–61 years; SD = 6.55). Mean current duration of marriage was 20.8 years (range 0.1–59.6 years; SD = 13.12). Particular exclusions were imposed separately for respective letter

¹ Three samples were actually collected separately and subsequently combined into one large sample (N = 1,380), in order to achieve the most precise population parameter estimates.

preference analyses to minimize number of exclusions (see Appendix). This resulted in an overall sample of 1,370 participants (minus individual analysis exclusions).

Design

Because even men sometimes adopt their wife's last name, we divided the sample into the two following groups: Those that adopted their partner's last name (hereafter referred to as the *name-change* group; predominantly married females who changed their last name) and those that maintained their original last name (*non-name-change* group; predominantly never married males and females, married males, and married females who kept their last name).

Measures

Letter Ratings

Participants rated the letters A to Z on 7-point rating scales from 1 (*I totally dislike it*) to 7 (*I like it very much*).² In order to avoid order effects, five lists with all letters in different randomized orders were used.

Demographic Information

Participants were asked to indicate their sex, age, date of marriage, and whether they had a double name. Furthermore, participants indicated their first and last name initials and birth name initial (if applicable).

Procedure

Participants were recruited by research assistants through their personal contacts using the snowball sampling technique. The sample was composed of a mixed community sample of volunteers from various occupational and living backgrounds. All participants took part on a voluntary basis. Once consent was obtained, participants completed the letter ratings and basic demographic information anonymously. Letter ratings were obtained before name letter inquiry in order to avoid suspicion about the nature of the study. Once completed, the questionnaires were returned by the participants in a sealed envelope and participants were verbally debriefed by the research assistant.

Results

Scoring Procedures

Initial preferences were computed using the *I*-algorithm, which was first used by Baccus, Baldwin, and Packer (2004) and recently recommended as optimal by LeBel and Gawronski (2009). Participants who gave the same rating for all letters (n = 10) were excluded before respective aggregation of letter preference scores (redundant ratings interpreted as noncompliance). The I-algorithm controls for two confounds that contaminate letter preferences: individual response tendencies (i.e., an individual liking all letters more or less) and general normative letter liking of particular letters (i.e., some letters are preferred more than other letters overall). The I-algorithm achieves this by using an ipsatization procedure that first centers (within-participant) each letter rating (A through Z) around each participant's mean ratings of all letters excluding his or her own first name, last name, and birth name (if applicable) initial letter ratings. Then, ipsatized initial letter ratings are centered around the respective normative baseline preferences for those letters, whereby normative baseline letter preferences are calculated as the mean (ipsatized) letter ratings from participants whose first, last, and birth name initials did not contain that letter. A self-positivity bias emerges when preference scores are statistically significantly different from zero (see results from one-sample *t*-tests in Table 1). For a discussion of different algorithms see LeBel and Gawronski (2009).

Initial Preferences for New and Abandoned Birth Names

Table 1 presents our main findings regarding initial preferences for the different names in the name-change and non-name-change groups.³ In the name-change group, a letter preference emerged for both the initial of the new last name and of the birth name. Furthermore, letter preferences for all other initial types were statistically greater than zero in both groups (all ps < .001). The effect sizes of these letter preferences were generally medium to large in terms of Cohen's d (Cohen, 1988), consistent with past research (LeBel & Gawronski, 2009).

To gain a deeper understanding of letter preferences for new last name and birth name initials, we examined the nature of these initial preferences with respect to the duration of marriage. Figure 1 (panel A) shows mean initial preferences for the new last names and birth names for the name-change group, plotted with respect to the duration of marriage (simple line graphs using lowess smoothing). As

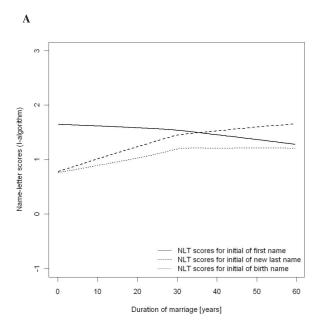
² In Sample II a 6-point rating scale was used. The scale values were converted into a 7-point rating scale.

³ Particular exclusions were made independently for each specific analysis in order to most accurately estimate name-letter preferences (less than 9% of participants for any of the computed means). Please see the Appendix for the details of these exclusions.

	Name-change					Non-name-change						
	n	M	SD	Range t	d	n	M	SD	Range	t	d	
First name initial	450	1.32	1.57	-4.2, 4.6 17	88* 0.84	794	1.28	1.49	-4.4, 4.7	24.13*	0.86	
Last name initial	386	1.10	1.74	-4.6, 4.4 12	39* 0.63	790	1.03	1.57	-4.6, 5.0	18.31*	0.66	
Birth name initial	384	0.84	1.72	-4.8, 4.5	64* 0.49	_	_	_	_	_	_	

Table 1. Overall mean letter preferences in the name-change and non-name-change groups

Notes. - = not applicable. t-values from one-sample t-tests testing the letter preference effect against the baseline (= 0). d = Cohen's d effect sizes. *p < .001.



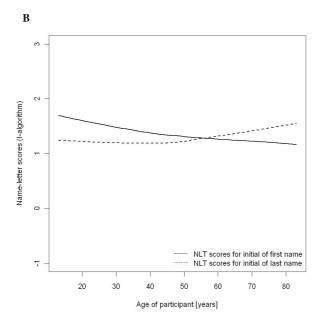


Figure 1. Name-letter preferences of the different name initials for individuals in the name-change group across different lengths of marriage (panel A), and for individuals in the non-name-change group across different age cohorts (panel B).

can be seen in the figure, initial preferences for new last names (dashed line) and birth names (dotted line) were generally constant across duration of marriage, although there was a tendency for both preference effects to increase slightly as duration of marriage increased, as reflected by negligible correlations between duration of marriage and letter preferences for new last name initials (r = .11, p =.03) and birth name initials (r = .09, p = .08). These patterns of data demonstrate two main findings. First, name-letter preferences for the initial of one's new last name emerged soon after marriage. Indeed, participants who had been married less than 2 years already showed a name-letter effect for their new last name initial, n = 24, M = 0.87, onesample t(23) = 2.19, p = .04. Second, name-letter preferences for the initial of one's abandoned birth name remained robust, even after 40 years of marriage, n = 41, M =1.14, t(40) = 4.89, p < .001.

Initial Preferences Across Age Cohorts

A secondary research question concerned the robustness of name-letter preferences across different age cohorts. We investigated this question by focusing exclusively on individuals in the non-name-change group to avoid contamination of age cohort effects by the act of changing one's name (i.e., name-change individuals have two last names and so this could bias the estimates of last name initial preferences across age cohorts). As can be seen in Figure 1 (Panel B), initial preferences for both first and last names were fairly constant across the wide range of ages (lines generated using same analytic strategy as for name-change group), although there was a tendency for first name initial preferences to decrease slightly with age and a tendency for last name initial preferences to increase slightly with age, as reflected by negligible correlations between age and letter preferences for first name initials (r = -.11, p < .001) and last name initials (r = .05, p = .15).

Additional Analyses

We ran a few additional analyses to rule out two alternative explanations for our findings. First, one could argue that individuals who changed their name through marriage may have had higher levels of self-associated positivity to begin with because individuals with higher self-esteem are more likely to marry or because their marriage affords them more positive self-evaluations (Brase & Guy, 2004). To rule out this concern, we compared name-letter preferences for first and second name initials across name-change and nonname-change groups. Independent sample t-tests revealed that first and last name initial preferences were equal across the groups, first name: t(1242) = 0.48, p = .63; last name: t(1174) = 0.69, p = .49, ruling out a concern that those who changed their last name had different levels of self-associated positivity than those who did not change their last name.

Second, one could argue that the initial preference effect found for new last names resulted from the automatic positivity associated with one's spouse (LeBel & Campbell, 2009) rather than (or in addition to) the automatic positivity associated with oneself (i.e., ISE). If this was the case, however, one would expect preference effects for new last name initials to be more pronounced than preference effects for last name initials in nonmarried individuals, given that the automatic positivity associated with one's spouse and one's self should contribute in an additive fashion to the letter judgments. As mentioned, however, our data did not show any differences in last name initial preferences between the name-change and non-name-change group (which was composed of primarily nonmarried individuals), even with the high statistical power afforded by our large sample. In addition, a more fine-grained test of this alternative explanation was executed by contrasting the last name initial preferences of married participants from the name-change group with nonmarried participants within the non-namechange group. Again, we did not find a statistically significant difference, $M_{name-change\ only\ married} = 1.10$, SD = 1.73, $M_{non-name-change} = 1.00$, SD = 1.59; t(1049) = -0.89, p = .37. Hence, even though we cannot be completely confident that preferences for new last name initials was only driven by ISE, our data is most consistent with the position that ISE was the *primary* contributor to the letter preferences.

Discussion

Although over 40 papers have been published using the NLT, no research has investigated name-letter preferences in the context of changing one's name through marriage. In particular, it is not known whether name-letter preferences extend to a newly acquired last name and whether name-letter preferences remain for the abandoned birth name. In addition, no systematic investigation has been carried out examining the robustness of name-letter preferences across age cohorts. Using a large heterogeneous sample, we found that a robust name-letter effect emerged for individuals' new last name initial and that this effect emerged within the first 2 years of marriage. Interestingly, we also found that the initial of one's abandoned birth name continued to show a preference effect, even after 20 years of marriage. Finally, robust name-letter effects emerged

across all assessed age cohorts, suggesting that name-letter preferences for first and last name initials generalizes to individuals of all postpubescent ages.

These findings contribute to the ISE literature in at least three ways. First, the current results suggest that the use of letter preferences in the NLT as a measure of ISE extends to populations of married individuals who change their last names. This is an important fact to empirically confirm, given that research examining whether important ISE findings extend to more representative samples will likely involve married individuals. Second, the results are the first to show that name-letter preferences are robust across all postpubescent age groups. This is important because it empirically confirms that the name-letter effect is a general phenomenon that is not specific to undergraduate samples. Hence, the current research contributes to a plea by some theorists that the generality of social psychological effects should be empirically confirmed rather than assumed (Schultz, 1969).

Finally, although the current study was not explicitly designed to test different theoretical accounts of the name-letter effect, the current results add another small piece to the debate regarding the mere-exposure account of name-letter preferences (Hoorens & Todorova, 1988; Jones et al., 2002; Pelham, Mirenberg, & Jones, 2002). If initial preferences are driven by affective consequences resulting from mere exposure, then one would expect letter preferences for the initial of one's birth name to diminish over time given that the abandoned birth name is probably rarely used after marriage. Our finding that initials from one's birth name continued to exhibit a preference effect, even after 20 years of marriage, contradicts a mere-exposure account of nameletter preferences. Instead, the robust birth name initial preference effect is more consistent with past research on evaluative conditioning (De Houwer et al., 2001), which argues that once formed, EC effects generally show resistance to extinction (Baeyens et al., 1988). Furthermore, the robust name-letter effects for new last name initials and across age cohorts are consistent theoretically with past research on associated self-anchoring (Gawronski & Bodenhausen, 2006) and mere ownership (Nuttin, 1987).

Two limitations of the current research are worth noting. First, our quasi-experimental design is a limitation in that differences between the groups other than name-change could arise. Indeed, individuals in the name-change group (predominantly married individuals) were older than the individuals in the non-name-change group (predominantly nonmarried individuals). Although this is a limitation of the current research, a close examination of our age cohort data mitigates concerns regarding this limitation. As previously mentioned, letter preferences for first and last name initials in nonmarried individuals were robust and stable for all assessed age cohorts (i.e., letter preferences do not become stronger with age; see Figure 1, Panel B). Hence, this fact rules out the concern that letter preferences for new last name and birth name initials emerged simply because of the older age of the participants in the name-change group.

Second, the cross-sectional nature of the sample limits our confidence regarding the nature of name-letter preferences over time. A longitudinal study tracking name-letter preferences of the same individuals over time would allow for a much more powerful examination of the dynamic of name-letter preferences over the course of one's life. In addition, it would be possible to more precisely capture when letter preferences for a (foreseeable) new last name emerges (which might develop even before the day of marriage).

In closing, we briefly consider other events that would be worth bearing in mind in the context of name-letter preferences. For instance, do name-letter preferences for an exhusband's last name initial drop after divorce?⁴ What about other name-change situations in the context of step-families where children adopt a stepfather's last name? These questions represent interesting avenues for future research, and could lead to further clarification of the psychological processes underlying the name-letter effect.

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⁴ We thank an anonymous reviewer for this suggestion.

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Appendix

Details of Exclusions Made for Particular Name-Letter Analyses

Particular exclusions were made independently for each specific analysis in order to provide the most accurate tests of our research questions (see below). This was required to make sure that specific letter preferences were driven exclusively by that letter type only. For example, for new last name initial preferences, we excluded individuals whose new last name initial equaled their birth name initial, because in this case the letter preference for new last name initial would be confounded by the letter preference for the birth name initial (e.g., new last name initial = 'd' and birth name initial = 'd'). This strategy was also used to ensure that the fewest number of exclusions were made for each analysis.

Name-change group analyses (married individuals)

For first name initial preferences, excluded were:

 individuals whose first name initial equaled their new last name or birth name initial. For new last name initial preferences, excluded were:

- individuals who carried a double last name
- individuals whose new last name initial equaled their birth name or first name initial

For the birth name initial preferences, excluded were:

- individuals who carried a double last name
- individuals whose birth name initial equaled their new last name or first name initial

Non-name-change group analyses (predominantly nonmarried individuals)

For first name initial preferences, excluded were:

individuals whose first and last name initial were the same

For last name initial preferences, excluded were:

- individuals whose first and last name initial were the same
- individuals who carried a double last name.