

NAME RECOGNITION AND CANDIDATE SUPPORT

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ABSTRACT

Does familiarity with candidates breed contempt, indifference, or admiration? Existing work presents modest theory and mixed evidence regarding whether name recognition affects voters' support for candidates. We develop and test a three-tiered argument, postulating that a) name recognition can affect candidate support; b) a key mechanism behind this effect is inferences about candidate viability, and not inferences about traits or experiences; and, c) name recognition effects are most likely to obtain in low information contexts. Using a series of three laboratory experiments, we show that name recognition can affect inferences about candidate viability, which in turn affect candidate support. The effects of name recognition, however, are vulnerable to the presence of a more applicable cue, specifically incumbency status. The article thus speaks to debates on the effects of name recognition and incumbency as cues and, as well, extends current understandings of the extent to which subconscious influences shape political decision-making.

NAME RECOGNITION AND CANDIDATE SUPPORT

“...there is only one thing in the world worse than being talked about and that is not being talked about.”
– Oscar Wilde¹

Political candidates devote significant resources to attempting to imprint their names on the public’s mind. They post yard signs, send mailers, print bumper stickers, distribute flyers and buttons, and, make media appearances, among other things. Many of these messages are devoid of content except the candidate’s name. Moreover, they likely draw very little conscious consideration by citizens as they drive by, sort mail, and channel surf. These messages presumably are aimed at increasing the candidate’s name recognition, but there is no consensus on whether mere name recognition actually affects candidate support.

On the one hand, some see the wisdom in promoting a candidate’s name, thus subscribing to Stokes and Miller’s classic statement that “recognition carries a positive valence; to be perceived at all is to be perceived favorably” (1962, p. 541). On the other hand, some second Abramowitz’s seminal rebuttal that “while mere name recognition [does] not breed contempt, neither [does] it breed affection” (1975, p. 674). According to this camp, if name recognition appears to register a positive effect on candidate support, it does so only because it proxies for additional information, such as candidate spending or candidate quality. We enter this debate by offering argument and evidence for three postulates: a) name recognition can affect candidate support; b) a key mechanism behind this effect is inferences about candidate viability; and, c) name recognition effects are most likely to obtain in low information elections.

Our theoretical perspective is based in a vast literature that documents how citizens frequently rely on heuristics in political decision-making. While the literature has identified

¹ From Oscar Wilde’s *The picture of Dorian Gray*, p. 2-3.

several important cues that citizens use, we posit that *name recognition* can have important heuristic value for making assessments about candidates. Further, we argue that name recognition should be especially useful when citizens lack any other systematic information about candidates, which is likely the case for many decisions made during primary elections and the vast majority of state-level and lower-level offices in general elections. Consider, for example, the May 2010 primary election in Breathitt County, Kentucky, in which individuals cast ballots for candidates for constable, coroner, county supervisor, jailer, and property valuation administrator; or the May 2010 election in Chesapeake, VA, in which individuals cast votes for city council and school board members; or, any of a variety of primary and general elections for circuit and appeals court judges. In all these cases, citizens confront a set of names and little to no additional information about candidates. For many voters, their first serious deliberation over the candidates for these offices likely occurs inside the voting booth, and for many of these voters, it is at least plausible to think that name recognition influences their vote.

But even if name recognition does affect voter support, by what process does it register this effect? One possibility is that citizens, holding all other information constant, apply a simple decision rule: “in the case of two otherwise equal candidates, prefer the one who is known or better known.” In this case, name recognition should affect candidate support alone, as voters automatically apply the rule to the decision without making further evaluations or inferences. This scenario is consistent with Zajonc’s (1968) conception of perceptual fluency and its effects: “mere exposure” to a name increases positive feelings toward that name. Here, we develop a second possibility, which is that name recognition spurs additional processing by voters, who then make inferences about the candidate, and these inferences then drive overall support. If this process holds, then name recognition

affects candidate support in a more complex and, to at least some extent, more sophisticated fashion. At the same time, it raises the question of what inferences are made on the basis of name recognition. We consider three types of inferences that citizens might make: traits, experience, and viability. The evidence, we will show, supports the notion that inferences about viability, as opposed to traits or experience, mediate the relationship between name familiarity and candidate support.

To support these claims, we utilize a series of laboratory experiments. The first study examines the effect of name recognition alone. Subjects are randomly assigned to a group that receives a name embedded in a subliminal prime, or a control group that does not receive the name. This unique experimental design allows us to meet the gold standard for experimental research: internal validity. As we discuss in more detail below, the use of a subliminal stimulus eliminates the potential for demand effects and avoids under-estimating the relationship in the case that the influence of name recognition is registered principally at a subconscious level.² While most and ideally all political stimuli in the real world are not relayed subliminally, this information is nonetheless often registered at a subconscious level. Our design thus mimics the real world of politics to the extent that individuals typically do not linger over candidate names displayed on yard signs, bumpers, and buttons; printed across quickly discarded mailers; or flashed on the television screen.

The second study adds an additional, politically-relevant piece of information, incumbency, which allows us to demonstrate the limits of name recognition against this stronger cue. The third study serves as a robustness check against the findings in the second

² One limitation of observational studies relying on questions that explicitly ask individuals about the extent to which they recognize or can recall a name is that if name recognition also or principally operates at the subconscious level, a measure capturing only conscious recognition or recall would underestimate the effect of name recognition on vote choice.

study. Together the three studies demonstrate first that name recognition – implicitly cued – positively affects assessments of the candidate’s viability, feelings toward the candidate, and vote choice. Second, mediation analyses support our argument that these assessments of viability underlie increased candidate support for those more familiar with the candidate’s name; in short, name recognition evokes bandwagon effects. Third, while name recognition affects voters’ assessments and choices in the absence of other relevant information, these effects are drowned out by the presence of other, more applicable information distinguishing the candidates, in this case incumbency versus challenger status.

THEORETICAL PERSPECTIVES ON NAME RECOGNITION

While name recognition is often discussed by both political activists and academics, there is no consensus, and no comprehensive theoretical perspective, on whether mere name recognition matters, why, and under what conditions. With respect to whether it matters, on the one hand, some scholars suggest that any causal relationship between name recognition and candidate success is spurious: an empirical correlation may exist but only because name recognition is a proxy for other attributes of the candidate, such as spending, personal qualities, public image, and performance, which are the real drivers of electoral success (see, for example, Abramowitz 1975; Jacobson 2009). On the other hand, numerous studies suggest an important relationship between name recognition and candidate support, in various types of elections, and across various types of candidates. Thus, name recognition has been identified as influential to the electoral success of incumbent congressional candidates and their challengers (e.g., Mann and Wolfinger 1980; Green and Panagopoulos 2008); congressional primary candidates (e.g., Burden 2002); presidential primary candidates (e.g., Bartels 1988; Lenart 1997); widows (e.g., Solowiej and Brunell 2003); and “celebrity” candidates who can sometimes capitalize on a highly visible public image to boost their

electoral odds (see Squire 1995). In contrast to the old adage that “familiarity breeds contempt,” this line of research suggests that familiarity with candidate names increases support for those candidates.

A recognition, so to speak, that name recognition matters has spurred research, for example, on how incumbents and challengers might increase name recognition and, thus, votes. Within this research, scholars have shown that increased campaign spending is particularly effective in increasing familiarity with and support for candidates, in particular challengers (e.g., Jacobson 2006; Green and Panagopoulos 2008); constituency service is useful to securing an incumbent advantage (Serra and Cover 1992); out-reach in person, by mail, and via the media is effective in increasing name recognition (Goldenberg and Traugott 1980; see also Prior 2006); and, an overlap or congruence between media markets and electoral districts in particular for House elections can increase familiarity, especially to the benefit of challengers (Campbell, Alford, and Henry 1984; Levy and Squire 2000).³

Much less research addresses the question of *why* name recognition matters. In fact, for the most part, this has been a secondary concern of scholars in the field. Some research does offer suggestive, but conflicting or unresolved, explanations. Thus, for example, Jacobson (1978) uses survey and campaign data to show that spending affects name recognition, in particular for challengers; and, further, his study shows that name recognition affects evaluations of the candidates and these in turn influence vote choice. However, Jacobson (2009) also offers evidence that the nature of these evaluations is not pre-determined; more familiar candidates do not always receive more favorable evaluations. At the same time, other research finds little relationship between increased name recognition

³ Other research on name recognition has considered the connection between name recognition and, for example, the decision to run (e.g., Solowiej and Brunell 2003).

and other assessments germane to vote choice. Abramowitz's (1975) study finds no evidence of a relationship between familiarity and performance assessments. And, Coleman and Manna (2000) show that, while campaign spending increases familiarity with candidates and their stances as well as warmth toward candidates, it does not affect assessments of the candidates' trustworthiness, efficacy, or involvement.

Thus, amidst the scarce attention allocated to understanding how increased name recognition affects citizens' vote choices, the theories and evidence are mixed. We argue that there are two principal avenues by which name recognition might lead to candidate support. The first avenue stems from work on "perceptual fluency" in psychology, which would argue that name recognition and familiarity simply and only lead to greater support. Here, name recognition is a simple decision rule for choice, arising from the mere exposure effect. According to the mere exposure effect, the experience of familiarity (or "perceptual fluency") with a stimulus, induced by mere exposure to it, induces warmer feelings toward it (Zajonc 1968). Zajonc (2001) suggests such an effect may occur because increases in familiarity, in the absence of negative information, signal something about the benign, safe nature of the stimulus.⁴

A second explanation, and the one we subscribe to, is that name recognition motivates an individual to make inferences about the candidate. Here again there are several possibilities. One is that familiarity increases evaluations of candidates' traits, or in a related vein, the candidate's qualifications for office. However, the notion that familiarity with a name alone would induce individuals to draw positive inferences about traits and experiences

⁴ Others have posited similar logic to explain classic mere exposure effects (see, for example, Burgess and Sales 1971), leading scholars to examine the consequence of exposure to stimuli attached with either a positive or a negative tag; in light of this research, our design tests for whether such an affective tag mattered and as discussed later we find no support for this expectation within this research design.

seems without theoretical or empirical basis (as we have just noted, the notion that name recognition effects traits has received only scant support in the literature).

More theoretically plausible is the notion that individuals infer in name recognition greater viability, and bandwagon around candidates that appear more capable of winning office. Numerous studies document, discuss, and assess the phenomenon of bandwagoning, in which individuals toss their support behind candidates who appear most capable of winning the election (e.g., Bartels 1987; Goidel and Shields 1994; McAllister and Studlar 1991; Skalaban 1988). Of the explanations put forward for this behavior, one is that individuals simply prefer to back a winner (see the discussion, for example, in Kenney and Rice 1994).⁵ If name recognition increases assessments of viability but does not influence other germane evaluations of the candidate, and viability in turn influences candidate support, this would suggest that one causal pathway through which name recognition works is by convincing citizens, who generally desire to back a winner, that the given candidate is indeed quite viable. Such a causal process would be consistent with the apparent objective, for example, of political yard signs. That yard signs might be influence voters' assessments is a notion held firmly by party activists; it appears to have not received much scholarly attention, though Kaid (1977) and Sommer (1979) both provide some evidence that yard signs are related to electoral outcomes. Further, Huckfeldt and Sprague (1992) demonstrate that yard signs can affect individuals' assessments of the electoral preferences present in their neighborhood or, in other words, the viability of candidates attached to a given party within that group of voters.

⁵ While bandwagon effects have been detected in numerous studies, it is also the case that under some conditions and for some people there may be a reluctance to back the winner and even a preference to back the underdog (see, for example, Fleitas 1971; though also see McAllister and Studlar 1991, who do not find evidence of underdog effects in three British elections).

Assuming that name recognition can matter, under what conditions is it most likely to exert an effect? Scholarship on heuristic decision-making holds that the extent to which certain cues are used depends on the menu of available cues. For example, when party labels are available, scholars tend to agree that citizens lean strongly on this, “their greatest information shortcut (Schaffner, Streb, and Wright 2001, p. 11).” Thus, the most-likely scenario for finding effects of name recognition is in contests that present voters with no other easy cues; under these conditions, we should find effects for name recognition. When theoretically stronger cues are available, name recognition may be less relevant to voter decision-making.

Most work on name recognition has used survey, observational, or field experiment data, all of which are less than ideal for assessing how individuals process information. The lack of consensus over the effects of name recognition on candidate support is likely the result of confounds in observational data: the inability of survey data to confidently assess a cause-effect relationship between name recognition and candidate support. To the extent that a correlation is found in survey data, it is easily dismissed as a spurious effect resulting from some omitted variable (such as candidate quality or spending or even some unobservable factor). Laboratory experiments thus provide an ideal approach for examining both the causal effect of name recognition and, further, the causal pathway by which name recognition affects candidate choice. We discuss the advantages of our experimental approach, in particular in terms of internal validity in the following section.

A PSYCHOLOGICAL APPROACH TO ASSESSING NAME RECOGNITION

In this article, we take a psychological approach to examining the effect of name recognition on candidate support. As we have discussed above, if name recognition does indeed affect voter choice, the literature suggests two routes by which this might occur. The

first is that individuals apply a straight-forward judgment rule upon being confronted with a choice between two otherwise similar candidates: “support the name that is more familiar.” In this case, the effect of name recognition would be registered on preferences alone, as the individual’s automatic application of the rule has no broader impact on other assessments of the candidate. The second possibility is that mere familiarity is only the beginning of the story. In this case, we would expect to find that exposure to the name induces individuals to draw additional inferences about the individuals’ traits, qualifications, and/or electoral viability. We have argued above that it is theoretically more convincing to expect that individuals draw inferences about viability from candidate name familiarity as opposed to more substantively-rich assessments such as candidate traits or experience.

We examine the evidence for, the processes underlying, and the limits of name recognition using a subliminal priming procedure. Our objective is to determine whether mere name recognition can affect candidate support, by what processes, and under what conditions. Because our principal interest lies in identifying the causal relationship between mere name recognition and candidate support, we prioritize internal validity in our research design. By internal validity, we mean our ability to assess the cause-and-effect relationship between the independent variable (name recognition) and the dependent variable (candidate evaluations). The use of subliminal priming provides several important benefits in this regard. First, it allows us to avoid demand effects that might be present in a more explicit test of name recognition, which is to say it allows us to avoid creating a situation in which the respondents detect the stimuli and alter their responses in order to meet the expectations of the investigators (Orne 1962). Second, because the design includes directions to stare at the screen while the prime “hits” subjects between the eyes, it allows us a more precise administration of the treatment than, for example, a study that presented the prime

consciously but unobtrusively. Third, the design allows us to determine whether name recognition works on a subconscious level, without conscious awareness of citizens.

In terms of external validity, our use of a subliminal priming paradigm to induce “mere exposure” to a hypothetical candidate’s name approximates the incidental and accidental ways in which political stimuli often reach citizens. Although political stimuli are largely presented to citizens on a supraliminal basis (that is, the stimuli are visible to the naked eye), these stimuli are not necessarily consciously processed. A good example is the political campaign yard sign – an ordinary citizen may drive by such a sign and not really notice it, but it might still have an effect on vote choice. Psychologists have found that the manner in which stimuli are presented (supraliminally or subliminally) is less important than the how the stimuli are processed (consciously or subconsciously); indeed, Dijksterhuis, Aarts, and Smith (2005) argue that subconsciously processed subliminal and supraliminal stimuli can have similar effects. Thus, the use of a subliminal priming procedure achieves high degrees of internal validity without sacrificing a high degree of external validity, instead shedding light on the ways in which the subconscious processing of political advertisements may affect candidate support.

By using subliminal primes, our project fits within a relatively new body of work in political psychology that has investigated the impact of implicit measures of attitudes on opinions and behaviors.⁶ In subliminal priming, a stimulus (e.g., a word or an image) is displayed to the subject for a short amount of time – so short an amount of time that the stimulus lies outside of the subject’s conscious awareness. Sometimes, as in our case, the

⁶ Subliminal priming has been used in psychology since the turn of the twentieth century (see Dijksterhuis, Aarts, and Smith 2005 for a review). One of the earliest works in subliminal persuasion, at the intersection of psychology and consumer research, argued that subliminally flashing phrases like, “Eat Popcorn” and “Drink Coke” increased purchases at cinemas (this was a newspaper article about James Vicary, who five years later debunked his own work– see Dijksterhuis, Aarts, and Smith 2005 for a discussion of its effects on the field).

stimulus is a novel one, and the intention is to examine the effect of subliminally introducing a stimulus to a subject on subsequent judgments relating to the stimulus.

Zajonc's (1968) pioneering work on perceptual fluency (and subsequent related studies) exposed subjects to a variety of supraliminally and subliminally primed stimuli including names, shapes, foreign words, and Chinese ideographs to identify the effect of mere exposure on subsequent, conscious evaluations of those stimuli. While most of Zajonc's early work used supraliminal exposure, Kunst-Wilson and Zajonc (1980) found that "mere" exposure delivered via subliminal presentation also increased liking for a variety of novel objects, concluding that, "Individuals can apparently develop preferences for objects in the absence of conscious recognition and with access to information so scanty that they cannot ascertain whether anything at all was shown" (558).⁷ We extend this research by proposing that individuals may not only increase their liking toward a stimulus that is made more familiar, but they may also draw relevant inferences about the stimulus (in this case, the candidate name), that form the basis for a choice (in this case, candidate support).

Supporting this line of reasoning, Krosnick, Betz, Jussim, and Lynn (1992) show that subliminal exposure to negative or positive images can affect the inferences people make about individuals' personality traits; such inferences, however, did not extend to all

⁷ Other subliminal priming studies have used familiar or known attitude objects to prompt memory activation. For example, subliminal priming activates memory for such objects and facilitates word completion (Debnar and Jacoby 1994). Additional studies are based upon associative network models of memory, which suggest that individuals store an array of considerations in memory that are cognitively and affectively connected, to varying degrees. Subliminal priming of one stimulus can activate memory for related constructs, and it can subsequently shape person perception (Bargh and Pietromonaco 1982; Devine 1989), evaluative categorizations of attitude-objects (Burdein, Lodge, Taber 2006; Lodge and Taber 2005; and Kam 2007), and behavior (e.g., Bargh, Chen, and Burrows 1996). Still other subliminal priming studies have used familiar or known attitude objects to create or change attitudes, in an evaluative conditioning paradigm. The famous "RATS" ad, aired during the 2000 presidential election, is an example of using subliminally presented stimuli to evoke a new or changed attitude – in this case, pairing the subliminally presented word, "RATS," and with a picture of Al Gore's face was intended to make Gore a less attractive candidate to viewers. In a recent study, Weinberger and Westen (2008) provide experimental evidence suggesting that subliminal exposure to the word "RATS" can induce negative traits ascriptions for a hypothetical candidate; they also show that subliminally pairing a photograph of Bill Clinton with a photo of Gray Davis affected subjects' evaluations of Davis.

assessments, such as physical attractiveness. Thus, research suggests that exposure to stimuli can affect some inferences that people make about a stimulus, but not *all* inferences.

SUBLIMINAL PRIMING AND NAME RECOGNITION: STUDY 1

To examine the effects of name recognition on candidate support within an experimental setting, young adults were recruited from political science and humanities courses at a medium-sized, private, southern university in the Fall of 2009. A total of 497 individuals agreed to participate in exchange for extra credit. The subjects were evenly divided across men (50.4%) and women (49.6%). They leaned Democratic, with 28% identifying as Republican, 45% identifying as Democrats, and the rest as Independent/Other. On the standard 7-point ideology measure, the average respondent was close to the midpoint of the scale. With respect to race, 7% of subjects identified as Asian, 5% as Hispanic, and 10% as black, and 5% as other. The average age was 19.7.

Subjects completed a pre-stimulus questionnaire consisting of demographics, personality, and mood questions. They participated in an unrelated study, and then were randomly assigned to one of two conditions for a subliminal priming period.⁸ The subliminal priming period consisted of a set of 32 trials, presented in immediate succession,

⁸ We initially designed the experimental treatment to contain three variations of subliminal priming. The three treatment sub-conditions received the name (“GRIFFIN”), which was followed by one of three types of stimuli: a nonsense string of letters, a positive word, or a negative word. We wanted to test whether classical conditioning could be differentiated from mere familiarity by introducing positive, negative, or neutral stimuli following the subliminally primed name. In all of the analyses that follow, the three experimental treatments were statistically indistinguishable from each other. These null findings could arise from experimental design issues (weak treatment, lack of power), or they might indicate that classical conditioning does not operate within this design. We cannot parse out these possible explanations within this study, so we have folded the three experimental variations into one omnibus experimental treatment group. Similarly, we initially designed the control group to contain three variations of controls: they were primed with positive, negative, or neutral stimuli, in order to allow us to parse out potential mood effects within the experimental sub-conditions. There were no statistically distinguishable differences across these groups, either, so we have folded them into one omnibus control group. A full description of the six-celled design appears in the Appendix.

in which subjects were directed to watch the screen as letter combinations flashed on the monitor.⁹

During each trial of the subliminal priming period, subjects were exposed to a fixation point (a dot) in the center of the screen, a forward mask of nonsense letter strings, a candidate name (if they were in the experimental group) or no name (if they were in the control group), a string of letters (nonsense string, positive word, or negative word), and then a backward mask of nonsense letter strings).¹⁰ The use of fixation points, forward masks, and backward masks is standard in subliminal priming procedures. The duration of

⁹ Prior to the stimuli, the following instructions appeared on-screen: “The next task is part of a study of how people perceive different types of letter combinations. During the next few minutes we’ll show you a series of letters and potentially some words. Later we may ask you questions about letter combinations. The images will appear only briefly. Between letter combinations, you should focus on the dot in the center of the screen. Press the space bar when you are ready to begin.”

¹⁰ There are no hard and fast rules in the literature on how long a subliminal prime should appear in order for it to be outside of conscious awareness (Dijksterhuis, Aarts, and Smith 2005). To determine whether subjects were able to detect the subliminally presented stimuli, we administered a final set of questions at the end of the study. Subjects were given the following instructions: “We have one last set of word perception tasks. This time we are going to place a few words amidst the letter strings to see if you can detect them. After this page a dot will appear on the center of the screen, please focus your attention on this point as this is where the letters will appear. Press <the space bar> when you are ready.” Using these instructions, we are explicitly telling subjects to look for words (and we expect that any conscious detection in this task is likely a good deal higher than it was in the experiment itself, where we did not explicitly instruct subjects to look for words). Subjects each received a single trial in which a single word was presented for 25 ms, wedged between a 500 ms forward mask and a 100ms backward mask. We repeated this single trial presentation with two different words (“WINDOW” and “TABLE”). Immediately after each trial, subjects were asked: “Ignoring the letter strings, were you able to see any actual words?” In response to the first trial (“WINDOW”), only 19% of subjects reported that they could make out a word and only 26% of subjects said they could do so for the second trial (“TABLE”). As a follow-up question for those who answered affirmatively, they were given four options and asked to indicate which word they saw. 73% of those who said they saw a word correctly identified “WINDOW” and 80% correctly identified “TABLE.” Thus, across all subjects, 13% saw “WINDOW” and 20% saw “TABLE.” Still, only 9% of subjects correctly identified both words. Next, as a separate exercise, subjects were given the following instructions: “In these final trials, more than one word will appear amongst the letters. Again, please focus your attention on the dot and pay attention as we will ask you to type the word if you detect one.” Three single-trial presentations were presented in direct succession, and at the end of the presentation, subjects were asked to type out (rather than select from multiple choice options) what word, if any, they could discern. We conducted this sequential task twice (with three x two = six total possible words that subjects could list; the words were “PENCIL”, “MOMENT”, “JELLY”, “CUSTOM”, “SALAD”, “STREET”). 67.8% of subjects could not correctly list any of the six words. Only 16% of subjects could list one of the six words. Only 7% of subjects could list two of the six words. About 5% of subjects could list three or more of the six words. Using both of these tasks, we conclude that the level of conscious awareness of the primes was likely quite low.

the primes was determined after a wide canvass of existing works on subliminal priming.¹¹

The sequence of each trial appears in Table 1:

Table 1: Subliminal Priming Design

Subliminal Priming Name Condition	Control group
Dot on screen (1000 ms)	Dot on screen (1000 ms)
KQHYPDQFPBYL (500 ms)	KQHYPDQFPBYL (500 ms)
GRIFFIN (40 ms)	NONSENSE, POSITIVE, OR NEGATIVE STRING (40 ms)
NONSENSE, POSITIVE, OR NEGATIVE STRING (25 ms)	
PYLDQFBYTQKPH (100 ms)	PYLDQFBYTQKPH (100 ms)

Immediately following the subliminal priming period, the subjects were asked a distracter question¹² and then were asked to make a judgment between two hypothetical candidates. All subjects received the following text:

We are interested in how candidates' names shape first impressions. Since we are interested in first impressions, please answer the following questions as quickly but as accurately as you can. Imagine two candidates are running for political office: Mike Williams and Ben Griffin. If you were eligible to vote in this election, for which candidate would you vote?

The selection of the candidates' names was deliberate. We wanted to create a situation in which one candidate would be more appealing, so that we could more easily detect movement away from that baseline preference. Consequently, we gave one candidate a more familiar name and one candidate a less familiar name, and we placed the more familiar name first given research suggesting that primacy matters when individuals consider written options (e.g., Krosnick and Alwin 1987). For the familiar name (Mike Williams), we chose the surname "Williams" because it is the third most popular surname in the country

¹¹ Van den Bussche, Van den Noortgate, and Reynvoet (2009) conduct a meta-analysis of subliminal priming studies, reporting that the mean stimulus presentation time for subliminal primes was 40-50 ms.

¹² "Which of the following letter combinations do you like most?"

from the 2000 Census.¹³ We chose the first name “Mike” because “Michael” is a very popular boy’s name.¹⁴ By making both the first and last name popular and familiar, we are attempting to mimic the standard name recognition phenomenon. For the less familiar candidate (Ben Griffin), who presumably has less name recognition, we selected the last name “Griffin”, which is ranked 114th on the list – familiar enough not to be considered strange – but far less popular than “Williams.” The first name (“Ben”, from “Benjamin”) was intentionally selected to be reasonably familiar but far less popular.¹⁵ By keeping sex constant across the candidates and using names that do not signal race/ethnicity, we intentionally eliminated other means by which voters might distinguish among the candidates.

With this intentional selection of names, we *a priori* expected Mike Williams to garner more support than Ben Griffin. And, consistent with our theorizing, the subjects did on average favor Mike Williams, even based on the negligible amount of information they received about him. Across the conditions, 58% of subjects favored Williams and only 42% favored Griffin.

That said, did subliminally priming the name “GRIFFIN” affect candidate support? It did, as the first column of results in Table 2 demonstrates.¹⁶ We measure candidate support in two ways, via vote and feelings. Table 2 presents the proportion of subjects who said they would vote for Griffin, by condition. Of subjects who were subliminally primed

¹³ <http://www.census.gov/genealogy/www/data/2000surnames/index.html>

¹⁴ From 1959 – 1998, “Michael” ranked as the most popular boy’s name for according to the Social Security Administration, with the exception of 1960, when it was second most popular; from 1999-2008, it was the second most popular boy’s name. <http://www.ssa.gov/OACT/babynames/>

¹⁵ “Benjamin” was ranked as the 25th most common boy’s name in 2008 (and has generally ranked in the 20’s and 30’s for the last few decades). <http://www.ssa.gov/OACT/babynames/>

¹⁶ There were no statistically distinguishable differences in individual characteristics (sex, partisanship, ideology, race, age, and political awareness) across the two conditions; a Hotelling vector of means test of the equality of means could not be rejected at $p < 0.05$.

with the name “GRIFFIN,” 46% said that they would have voted for Griffin. Of subjects who were subliminally primed with nonwords, only 33% would have voted for Griffin. The difference in proportions is statistically significant at $p < 0.011$, two-tailed.¹⁷

Table 2: The Effect of Subliminal Priming on Candidate Preference

	%Vote for Griffin	FT Griffin Advantage
Subliminal Priming Name Condition	0.46 (0.03) N = 360	-1.00 (1.10) N=360
Control Condition	0.33 (0.04) N=137	-5.97 (1.61) N=136
<i>p</i>-value for test of equality	0.011	0.011

Column 1: DV is coded 1 for Griffin, 0 for Williams.

Column 2: DV ranges from -100 (advantage Williams) to +100 (advantage Griffin).

Subjects were also asked to evaluate each of the candidates using the feeling thermometer. Here, we examine the difference in candidate evaluations between the two candidates. Theoretically, this variable ranges from -100 (advantage Williams) to +100 (advantage Griffin), with 0 indicating neutrality. Averaging across all subjects, the more familiar candidate (Williams) has a modest advantage, with the sample mean holding at -2.36 (s.d. = 20.45).

Again, though, we are interested in whether subliminally priming the name “GRIFFIN” shifts subject feelings in the direction of Griffin. As we can see from the second column of results in Table 2, it did. In the treatment group, Griffin has only a 1 point disadvantage compared with Williams. In the control group, Griffin has almost a 6 point disadvantage compared with Williams. These differences are statistically distinguishable from each other at $p < 0.011$, two-tailed. Together, these sets of results

¹⁷ We also estimated a probit model where we controlled for a series of covariates (sex, partisanship, ideology, race, age, and political awareness). The results were identical. We examined whether the pairing “GRIFFIN” with a nonsense string, a positive word, or a negative word made a difference; it did not. The experimental conditions could not be statistically distinguished from each other.

provide evidence that mere exposure to a candidate's name significantly affects candidate support, as measured by both vote choice and affect.

Inferences from Familiarity

As we mentioned above, there may be more to the story than mere exposure simply leading to support. We suspect that some sort of inferential process may occur: that individuals may make inferences about a candidate's traits, experience, or viability. We included a battery of trait questions aimed at ascertaining whether or not the subliminal priming leads subjects to make positive trait inferences about the primed candidate. The four-item trait battery focused on Griffin. Subjects were asked, "In your opinion, how well does the phrase "He is honest," describe him?" This question was followed with three additional questions asking about leadership, empathy, and intelligence.¹⁸

We combined responses to these four items into an additive scale, ranging from 0 (most negative on all four items) to 1 (most positive response to all four items).¹⁹ Across the treatment and control groups, as shown in Table 3, there were no statistically distinguishable differences in average trait assessments. For the treatment group, the average trait assessment was 0.49 (s.e. = 0.01); for the control group, the average trait assessment was 0.47 (s.e. = 0.02). This suggests that subliminally priming subjects with the name "GRIFFIN" did *not* make them more likely to draw positive inferences about the Griffin's personal traits.

¹⁸ The question text read: "In your opinion, how well does the phrase "He provides strong leadership," describe him?"; "In your opinion, how well does the phrase "He really cares about people like you," describe him? "; "In your opinion, how well does the phrase "He is intelligent," describe him?" Four response options were available: "Extremely well"; "Quite well"; "Not too well"; and "Not at all."

¹⁹ The scale is highly reliable: Cronbach's $\alpha = 0.84$. Factor analysis yielded one eigenvalue = 2.22, with the next highest eigenvalue at 0.02. The individual item factor loadings landed in a narrow range, from 0.67 to 0.80. The scale mean is 0.48 with standard deviation of 0.20.

Table 3: The Effect of Subliminal Priming on Inferences

	Trait Scale	Experience	Viability
Subliminal Priming Name Condition	0.49 (0.01) N = 360	0.36 (0.02) N=360	0.46 (0.03) N=360
Control Condition	0.47 (0.02) N=136	0.35 (0.02) N=136	0.34 (0.04) N=136
<i>p</i>-value for test of equality	0.24	0.77	0.012

Column 1: DV is coded 1 for Griffin, 0 for Williams.

Perhaps familiarity leads subjects to make inferences about candidates' qualifications for office (e.g., their past political office). To see if this was so, we asked subjects how many times Griffin had held previous office.²⁰ The plurality of subjects guessed that Griffin had held office once in the past. But, there were no statistically significant differences between the treatment and control groups, again suggesting that if subjects were making inferences from familiarity, these were not inferences about experience.

A final possibility is that subjects make inferences about viability from familiarity. To determine whether this was so, we asked subjects, "If you had to make a prediction, which candidate do you think will win the election?" Averaging across all subjects, the majority (57%) believed that Williams would win; only 43% thought Griffin would prevail. Partitioning by condition, however, we see significant differences, as shown in Table 3. In the control condition, only 34% of subjects thought that Griffin would win. In the treatment condition, 46% believed Griffin would win, a significant difference at $p < 0.012$. These results suggest that inferential processing is at work – an inferential process based not on traits or experience, but on viability.

²⁰ The question text read: "How many times would you guess that BEN GRIFFIN has held previous office?" Subjects could answer "Never", "1", "2", or "3 or more" times.

Causal Mechanism: Mediation Analysis

We next investigate the extent to which inferences about viability might account for the change in candidate preference: that is, do viability inferences mediate the relationship between treatment and candidate preference? To answer this question, we use three approaches: the causal steps approach (Baron and Kenny 1986), a Sobel test (Sobel 1982, 1986), and the average causal mediation effect approach (Imai, Keele, and Yamamoto Forthcoming).

The causal steps approach (Baron and Kenny 1986) uses four steps to identify whether a covariate mediates the effect of some other covariate (typically the experimental treatment). For ease of presentation, we use linear probability models in the causal steps analysis. In Step 1, we identify the relationship between the treatment and the dependent variable. As shown in Table 4, the treatment has a significant effect on vote choice. In Step 2, we identify the relationship between the proposed mediator (perceptions of Griffin's viability) and treatment: as the results in Table 4 show, the treatment has a significant effect on perceptions of Griffin's viability. In Step 3, we show that the proposed mediator (perceptions of Griffin's viability) significantly predicts vote choice, even in the presence of the treatment variable. Finally, in Step 4, we compare the estimated coefficients on treatment, across Models 1 and 3. The effect of the treatment is cut in half, and the effect of the treatment is not even significant anymore once viability perceptions are included in Model 3. According to the causal steps approach, inferences about Griffin's viability do partially mediate the relationship between the subliminal priming treatment and vote choice.

Table 4: Causal Steps Approach

	Model 1	Model 2	Model 3
	DV:	DV:	DV:
	Vote for Griffin	Griffin's Viability	Vote for Griffin
Subliminal Priming	0.12**	0.13**	0.06
Name Condition	0.05	0.05	0.04
Viability			0.51***
			0.04
Intercept	0.33	0.34	0.16
	0.04	0.04	0.04
N	496	496	496

Table entry is the OLS coefficient with standard error below.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$, two-tailed

There are several other ways to approach mediation analysis. We conducted a Sobel test (Sobel 1982, 1986) to determine whether the viability inferences significantly mediate the relationship between treatment and vote choice. The Sobel test yielded a z -value of 2.95, $p < 0.000$, suggesting that viability inferences do significantly mediate the effect of the subliminal priming condition on vote choice.

One draw-back to the above analyses is that they use linear probability models on binary mediator and outcome variables. As a final test, we used the average causal mediation effect approach developed by Imai and colleagues (Imai, Keele, and Yamamoto Forthcoming; Imai, Keele, Tingley, and Yamamoto 2010) to allow for specifying the mediation and outcome models using the familiar probit specification, with bootstrapping. This approach yielded largely similar results, suggesting that 47% of the total effect of the treatment occurs via mediation, which again is largely consistent with the causal steps comparison (Step 4).

The causal steps, Sobel test, and nonparametric bootstrap approaches also yield similar results for the continuous outcome variable of Griffin's feeling thermometer

advantage.²¹ Overall, for both outcome variables and across the three procedures, our results suggest that the subliminal priming treatment increases Griffin’s perceived viability as a candidate, which then translates into higher candidate support, as measured by vote choice and the feeling thermometer advantage.²²

THE LIMITS OF SUBLIMINAL PRIMING AND NAME RECOGNITION: STUDIES 2 AND 3

We have shown that subliminal priming of a candidate’s name has a significant and sizable effect on candidate preference, via inferences about viability. These findings occurred under minimal information conditions, when subjects were given with no information about the candidates aside from their names – an information context that we would argue mimics many sets of candidates featured on real ballots. Yet even in low information races, citizens might find other ways to distinguish between candidates. Partisanship may be a dominant cue – but it may be missing from a considerable number of state-level and lower-level offices. Other cues such as sex (McDermott 1997, 1998; Sigelman and Sigelman 1982, 1984); race or ethnicity (Kam 2007; McDermott 1998; Sigelman and Sigelman 1982, 1984; Terkildsen 1993); appearance (Banducci et al. 2008; Todorov et al. 2005); or incumbency (Goodman and Murray 2007; Schaffner, Streb, and Wright 2001) may be pertinent to voters. Existing scholarship suggests that the likelihood of reliance on a cue is conditional on a number of factors, including “applicability” or relevance (Higgins 1996; Chen and Chaiken 1999). When citizens can make a decision based on a more applicable

²¹ Using the causal steps approach, the effect of the treatment declines from 4.98 (s.e. = 2.05, $p < .02$) in Model 1 to 3.10 (s.e. = 1.92, $p \sim 0.11$) in Model 3. Inferences about Griffin’s viability significantly predict Griffin’s FT advantage ($b = 14.91$, s.e. = 1.73, $p < 0.000$). Sobel z -value = 2.43, $p < 0.000$. Using the Imai et al. approach, perceptions of viability account for 37% of the treatment effect.

²² One might consider the validity of another interpretation of the results, in which subjects rationalized a vote for Griffin by increasing their evaluation of his viability. We believe the evidence allows us to discount this possibility. If, indeed, subjects were seeking to rationalize their vote choice, then we would expect evaluations of Griffin’s traits *and* experience to also be greater in the treatment condition, but they were not. Moreover, the viability question was asked last in the series (after the trait question and after the experience question), thus dismissing any possibility of simple decay effects.

judgment rule (say, partisanship, sex, race, ethnicity, or incumbency), individuals will shift away from reliance on name recognition in favor of that new cue.

In Studies 2 and 3, we focus on incumbency status, a cue that may be arguably more germane to vote choice than name recognition, since incumbency at a minimum signals actual political experience.²³ In low information races in which partisanship is absent, and sex, race, and ethnicity are constant, incumbency might in fact be the only additional cue provided to voters. For example, ballots in the states of California and Arkansas allow candidates to list their occupations or current public office, which in essence allow candidates to signal incumbency. Ballots in the state of Georgia identify incumbents by placing the word “incumbent” in front of the candidate’s name. Incumbent status (or current job position) also appears for state-wide judicial candidates in Minnesota, Michigan, and Oregon. Additionally, yard signs, bumper stickers, and mailings urging voters to *re-elect* John Smith cue incumbency. To assess the limits of the effects of name recognition, in this next study, we directly confront the extent to which additional information about the candidates – particularly, their incumbent or challenger status – might or might not mitigate the effects of subliminal priming.

In Study 2, we repeated the procedures in Study 1, for a randomly selected portion of the subjects (the other subjects were routed to a different study).²⁴ After answering questions about the Griffin-Williams race, subjects were then told:

During the next few minutes we’ll show you another series of letters and potentially some words. Later we may ask you more questions about letter combinations. Between letter combinations, you should

²³ Our use of incumbency also allows us to weigh in, to at least some extent, on a debate in the literature regarding the heuristic value of information about incumbency status. In contrast to scholars who identify a positive role for incumbency as a cue, other scholars have suggested that “voters are not strongly attracted by incumbency per se” (Jacobson 2009, p. 138; see also Krasno 1994).

²⁴ A programming glitch ruined the data for days 1 and 2 of this study. Thus, we are left with N = 154: 121 in the treatment group and 33 in the control group.

again focus on the dot in the center of the screen. Press the space bar when you are ready to begin.

Subjects were again randomly assigned to one of two experimental conditions, in which they were exposed to a subliminally primed name (“JENKINS”) or were not. All other aspects of the subliminal priming procedure were identical to Study 1. The questions were also identical, with one exception. Immediately following the subliminal priming phase, subjects were asked a distracter question²⁵ and then were asked to make a judgment between two new hypothetical candidates.²⁶

In the first question about the race, the vote choice question provided two response options: “Incumbent JOHN DAVIS” or “Challenger MILT JENKINS.” Subjects overall demonstrated strong favoritism for the incumbent candidate, who garnered support from 71% of subjects; only 29% of subjects were willing to support the challenger. The incumbent/challenger tag starkly divides the subject pool, in a way that we did not see with Study 1, which lacked that information. Also in contrast with Study 1, across experimental and control groups, there were no statistically distinguishable differences attributable to the experimental treatment. For the vote choice comparison²⁷, 29% of treated subjects preferred Jenkins compared to 27% of control subjects, with the difference of proportions test suggesting no distinguishable differences ($p \sim 0.85$). Treated subjects gave the incumbent a 10.8 point advantage (s.e. = 2.60) on the feeling thermometer, while control subjects gave the incumbent a 12.8 point advantage (s.e. = 5.36), with a t-test of means yielding no distinguishable differences ($p \sim 0.74$). There were no differences across groups on trait

²⁵ “Which of the following letter combinations do you like most?”

²⁶ As before, the selection of candidate names was deliberately chosen, such that the incumbent candidate (“John Davis”) had a first and last name that were far more commonplace than the challenger candidate (“Milt Jenkins”).

²⁷ Hotelling’s vector of means test suggests no differences in covariates across treatment and control groups, so we conduct simple differences of proportions and means tests.

evaluations (t-test of means insignificant, $p \sim 0.54$), judgments of past experience (*ns*, $p \sim 0.84$), nor viability inferences (*ns*, $p \sim 0.83$).

From these results, it appears that the presentation of a politically relevant heuristic (the incumbent/challenger tag) effectively eliminates the effect of the familiarity heuristic. These results, however, derive from a study that was administered immediately following Study 1 and that has a dramatically smaller sample size. In order to determine whether subject fatigue or power could have been responsible for these null findings, we replicated Study 2 at a different location, with a different subject pool, and administered it as a stand-alone subliminal priming study (not as the second of two subliminal priming studies).

For Study 3, subjects were recruited from political science courses at a large, public, western university. The 339 subjects were randomly assigned to either the treatment group ($N=259$) or the control group ($N=80$)²⁸. The study was administered using the same computer software with the same interface and identical questions. As with Study 2, the incumbent was far more popular than the challenger; indeed, the proportion of subjects supporting the incumbent vs. the challenger was nearly identical in Study 3: 72% of subjects preferred the incumbent compared with 28% of subjects who favored the challenger. Across the treatment and control groups, there were no statistically distinguishable differences in vote choice ($p \sim 0.62$), FT advantage ($p \sim 0.61$), trait evaluations ($p \sim 0.92$), experience ($p \sim 0.42$), or viability ($p \sim 0.46$). In sum, replicating Study 2 in a new venue, with a larger sample size and a fresh set of subjects lends additional support to the findings we reported above: the presentation of the more applicable, politically relevant

²⁸ The subjects were evenly divided across men (49.6%) and women (50.4%). They leaned strongly Democratic, with 17% identifying as Republican, 60% identifying as Democrats, and the rest as Independent/Other. On the standard 7-point ideology measure, the average respondent was somewhat liberal. The pool was racially diverse, with 26% of subjects identifying as Asian, 12% as Hispanic, and 2% as black, and 12% as other. The average age was 20.3.

incumbent/challenger tag dramatically eliminates the effect of the familiarity heuristic on candidate support.

The results from Studies 2 and 3 suggest that one cue (incumbent/challenger status) can trump another (familiarity). We find evidence of a substitution effect, whereby individuals rely less on a particular cue when it is presented alongside another, more attractive (more germane) cue. Such a substitution effect may be most likely to obtain in this particular case, in which one of the cues is based on feelings, or some “nonanalytic” criterion. As Jacoby et al. (1989a) note,

Familiarity and other sorts of subjective experience serve as a nonanalytic basis for judgments... sometimes there is no good analytic basis for judgments to substitute for nonanalytic subjective experience. In such domains, people are particularly open to unconscious influences of the past. (p. 336).

By providing our subjects with the analytic cue of incumbent/challenger status, we gave them an alternative, more applicable criterion by which they could assess the hypothetical candidates. More generally, the results suggest that when suitable alternative criteria are readily made available to citizens, the effects of mere familiarity dissipate.

DISCUSSION AND CONCLUSIONS

In this article, we have focused on the effects of name recognition on electoral decision-making. With our first laboratory experiment, we have shown that subliminal presentations of a hypothetical candidate’s name have significant effects on vote choice, affect, and inferences about viability. These effects are reasonably large in magnitude and reflect an interconnected set of attitudes about a particular candidate. The results reflect Zajonc’s concept of “perceptual fluency,” whereby mere exposure induces liking, but they go beyond this concept, too, in showing that subjects make viability inferences based on their familiarity with the candidate – inferences that then produce greater affect and support for the candidate. In particular, we have shown that mere exposure enhances inferences

about the viability of a candidate, a finding that relates neatly with the literature on bandwagoning during political campaigns. In contrast to scholarship suggesting that name recognition does not directly influence candidate support, we find clear evidence of a causal link, which demonstrates that – in at least some conditions – name recognition can increase candidate support.

We next considered the limits of name recognition, in particular assessing whether a more applicable cue would substitute for, and therefore eliminate the effects of, name recognition. In two supplementary studies, we have also shown that these mere recognition effects dissipate in the presence of a more politically relevant criterion: incumbent status.

Our project responds to the lack of consensus that has marked observational analyses of name recognition and candidate support. Our unique subliminal priming design preserves internal validity and thus allows us to establish a causal link between name recognition and candidate support. Little work to date has examined the effect of subliminal presentations of stimuli on political decision-making. There are important exceptions to note, of course, including the pioneering work of Lodge and Taber on “hot cognition” (e.g., Lodge and Taber 2005) and the political advertising work by Weinberger and Westen (2008). This article thus also contributes to this body of work by illustrating the effects of subliminal priming of stimuli on vote choice, affect, and viability.

More broadly, though, our research design speaks to the effects of political stimuli that are processed subconsciously, and more generally, highlights subconscious influences on voter decision-making. By subconscious influences, we refer to cases where the citizen is unaware of how previous experiences can and may affect political decisions at hand. We elected to use a subliminal priming paradigm in our laboratory studies because it has the benefit of introducing subjects to a new stimulus without their awareness and at the same

time minimizing demand effects in the lab, but psychological studies suggest that even mere exposure via supraliminal presentations can affect judgments (Zajonc 1968; Jacoby et al 1989a, Jacoby et al 1989b; see Dijksterhuis, Aarts, and Smith 2005 for an argument that supraliminal and subliminal presentations can yield similar results). Thus, our use of subliminal primes allows us to achieve high levels of internal validity while still mimicking real world psychological processes, specifically those in which political information comes by accidentally and incidentally, and is thus subconsciously processed, leaving individuals, at the time of decision-making, unaware of how they may be influenced by the information. Such processes we would argue are omnipresent in political life. Citizens haphazardly come across myriad political advertisements, billboards, yard signs, bumper stickers, and other visual displays in their daily lives but they are likely not consciously aware of them, or more importantly, do not consciously call them to mind when decisions are at hand. As Jacoby et al. (1989b) note, “many effects of prior experience on later performance can occur independently of the ability to consciously recollect the experience” (p. 115).²⁹

In our experiment, we have kept the level of exposure constant among those who were treated with the subliminal priming named trials. A logical extension to our study would examine whether the relationship between exposure and candidate support would vary depending upon the degree of exposure. Work by Bornstein et al. (1987) suggests that increasing the level of exposure can increase liking for a stimulus, but we can also imagine potential ceiling effects at very high levels of exposure, due to decreasing marginal utilities or because exposure becomes so high that the subject becomes aware of the potential that past experiences might influence decisions at hand. Considering the relevance of this question to

²⁹ Lack of awareness of the effect of past experiences is often crucial. When awareness sets in, citizens may intentionally try to subvert the influence of past experiences on their present decisions: as Jacoby et al. (1989) note: “awareness often serves to oppose effects that would otherwise occur” (p. 327).

the real world of politics, we might consider whether it matters if an individual drives by a particular candidate's yard sign once, twenty times, or a hundred times? Our data cannot speak to this particular question, but it is certainly one that our research design could easily accommodate.

Political scientists devote a great deal of attention to high profile national and state elections, but citizens confront many, many other electoral contests when they enter the ballot booth. For many contests in which citizens are asked to vote – in political primaries as well as general election races at state-level and lower-level offices – they confront sets of candidates who may be virtually unknown to them. What we have shown is that in the absence of alternative, analytic criterion – such as that regarding incumbent/ challenger status – citizens may rely on familiarity as a heuristic. They will use this familiarity heuristic to make inferences about candidates' viability, and these inferences about viability will shape their voting decisions and degree of affect for the candidates. From these three studies of name recognition and vote choice, we conclude that Oscar Wilde may have been right – at least when it comes to political candidates in low-information contexts.

Appendix: Complete Experimental Design (Study 1)

Condition number	Condition Description	Conditioned Stimulus	Unconditioned Stimulus	N
1	Name – Neutral	GRIFFIN	<i>Nonsense letter strings</i> CARDEL, GUITAS, DAGE, MALD, MIVER, SQUAN, STEDIO	116
2	Name – Positive	GRIFFIN	<i>Positive words</i> STRONG, HONEST, SMART, CARES, LOVE, SUNRISE, LAUGHTER, JOY	119
3	Name – Negative	GRIFFIN	<i>Negative words</i> WEAK, LIAR, DUMB, IGNORES, RAPE, VOMIT, TUMOR, TORTURE	124
4	Control - Neutral	<i>N/A</i>	<i>Nonsense letter strings</i> CARDEL, GUITAS, DAGE, MALD, MIVER, SQUAN, STEDIO	41
5	Control – Positive	<i>N/A</i>	<i>Positive words</i> STRONG, HONEST, SMART, CARES, LOVE, SUNRISE, LAUGHTER, JOY	45
6	Control - Negative	<i>N/A</i>	<i>Negative words</i> WEAK, LIAR, DUMB, IGNORES, RAPE, VOMIT, TUMOR, TORTURE	52

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