

## **ABSTRACT**

GISSEL, AMANDA LYNN. The Effects of Email Address Norm Violations on Evaluations of Job Applicants. (Under the direction of Lori Foster Thompson).

Technology has changed the nature of personnel selection and introduced information about applicants previously unseen by prospective employers. One such piece of information is the applicant's email address. Using the Expectancy Violation Theory framework, this experiment investigated whether violating an expectancy by using a non-standard email address on a résumé impacted perceptions about an applicant. Experienced business professionals (N=252) reviewed a job description and the résumé of a job applicant. Each respondent was randomly assigned to 1 of 4 conditions that varied only with respect to the email address (standard, non-standard-positive, non-standard-neutral, and non-standard-negative) shown on the applicant's résumé. The standard email address consisted of a combination of the applicant's first and last name. The other email addresses consisted of words or phrases shown to evoke positive, neutral, and negative reactions outside of an employment context. Respondents evaluated the applicant's social skills, competence, and global favorability and to decide if the applicant should be invited for an interview. Results revealed using a non-standard email address when applying for a job violated decision makers' expectations, more so for negative than a positive or neutral email address. Analyses indicated the consequences of violating an email norm expectancy depended on the valence of the email address used. Negatively valenced email addresses adversely affected selection-related perceptions of the applicant. Conversely, nonstandard email addresses with neutral

and positive valences didn't appear to evoke negative reactions from reviewers, although they violated an expectancy.

The Effects of Email Address Norm Violations on Evaluations of Job Applicants

by  
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## **DEDICATION**

To my husband Tom and two beautiful children Abby and Ben. I couldn't have done it without your love, patience, and support. Thanks for believing that someday I'd become "Dr. Mommy."

## **BIOGRAPHY**

Amanda Gissel graduated from the University of Wisconsin-Madison with Bachelor of Arts degrees in both psychology and Spanish. She also received a Master of Arts degree in Counseling Psychology from St. Edward's University in Austin, Texas. She completed her doctoral degree in Industrial-Organizational Psychology from North Carolina State University.

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## The Effects of Email Address Norm Violations on Evaluations of Job Applicants

“As an interviewer: When reviewing a resume, I don't care much about the domain. However, if the username is something immature or inappropriate, it suggests that the candidate may not have the decision-making skills that I'm looking for.” (Anonymous HR Manager as quoted in Fitzpatrick, 2010)

It is important to understand what aspects of the job application process and the job applicant affect selection decisions. Many applicant characteristics have been studied over the years, such as name (Bertrand & Mullianathan, 2003; Kaplan & Fisher, 2009; Rosen & Jerdee, 1974; Tyler, McCullough, & Dane, 2009), race (Bertrand & Mullianathan, 2003), gender (Zikmund, Hitt, & Pickens, 1978), marital status (Biggs & Beutall, 1986; Oliphant & Alexander III, 1982), and physical attractiveness (Dipboye, Fromkin, & Wilback, 1975). Some characteristics that have been studied pertain to self and résumé presentation, such as style of dress (Forsythe, 1990), jewelry and hairstyles (Cash & Kilcullen, 1985), the presence of glasses (Harris, Harris, & Bochner, 1982; Lusnar, 1999), cosmetics (Cox & Glick, 1986), and errors in a résumé (Messmer, 2001). Barrick, Swider, and Stewart (2010) found that managers often make “snap judgments” about applicants based on information that is immediately available to them such as the applicant’s smile, handshake, clothing, or small talk.

The purpose of this study is to investigate the influence of an applicant’s email address on evaluations, judgments, and perceptions of the applicant. The research proposal upon which this study is based is provided in Appendix A.

## **Email Usernames**

Email usernames function similarly to a given/family name in that they are a way for individuals to uniquely identify themselves. However, an email username has a greater potential to shape impressions than a given/family name because it can reflect characteristics other than gender or ethnicity (Blackhurst et al., 2011). The format of email addresses is formally defined in RFC (Request for Comment) 5322 (mostly section 3.4.1) and in RFC 5321 (please see <http://www.rfc-editor.org> for more information). An email address is a string of a subset of ASCII characters separated into two parts by an "@" (at sign), a "local-part," and a domain, that is, local-part@domain. The "local-part," or the part before the @ sign, is typically the username (jsmith), and the part after the @ sign is the name of the domain to which the email message will be sent (e.g., yahoo.com, gmail.com).

The local-part, or "username," as people more commonly know it and will subsequently be referred to throughout this study, is sometimes assigned by the institution issuing the email address. For example, many universities, large businesses, and government agencies assign their constituents the username of the email address. Other times, such as when an individual creates his or her own personal email account (with providers such as Yahoo, Gmail, or Hotmail for example), individuals have the opportunity to choose what the local part of their email address will be. A standard local-part of the email address typically consists of some combination of the first and/or middle initial and the last name (e.g., jrsmith@, jdoe@, tcruise@); (Fitzpatrick, 2010; Hobbs, 2010; Johnson, 2010; LeVanway, 2009).

Most consider that the standard format discussed above is normative in that it is commonly suggested by the popular press that it should be used for business or non-personal email communications (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009). However, when choosing their own email address, users have the option of deviating from this normative format. They may instead choose to convey something about themselves and create a non-standard email username, such as a Star Wars fan whose email address is SithLord@email.com or a car enthusiast using badAsschevy@email.com.

### **The Role of Email Addresses During Selection**

Historically, the selection process involved individuals submitting paper application materials (i.e., résumé, cover letter, references) to a potential employer and the employer subsequently reviewing the information received from all applicants. Then, based on the information contained in the application materials, employers decide which applicants to ask to return for an interview. Although the same basic process is still employed, typically applicants now send much, if not all, information and correspondence electronically (i.e., via email; Tamanini, 2005). As such, email usernames enter the selection process. This happens in at least three ways. One example is when the applicant includes his or her email address in the contact information portion of the résumé along with his or her telephone number and address. Several authors have noted this addition, observing that an email address is often included along with other contact information on a résumé (Benjamin, 2010; Doyle, 2010; Ellis-Christensen, 2010, Hobbs, 2010; McIntyre, n.d.). Applicants with “professional” email addresses assigned by their current employers may opt to include their personal email

address instead. Another potential way an email username can enter the selection process is when applicants email a résumé or engage in other email-based correspondence (the initial contact inquiry, scheduling an interview) with a prospective employer (Blackhurst, Congemi, Meyer, & Sachau, 2011; Thompson, Mullins, Robinson, & Halberstadt, 2010). Essentially, any time an applicant emails a prospective employer or the employer emails an applicant, the applicant's email username enters into the selection process. Finally, employers may come to know an email username if the employer conducts an online search on prospective employees (e.g., "Googling" the applicant). Some job candidates have their email addresses posted online at various sites.

A norm is a rule for expected and accepted behavior (Myers, 2004). A role is an entire set or cluster of norms (Brym & Lie, 2006). Accordingly, norms characterize the role of a job applicant, which includes how prospective employers expect a job seeker to dress and behave during interactions. As documented in the popular press, this role also includes rules for expected and accepted email usernames. With the introduction of email addresses into the selection process, there is a burgeoning body of popular press warning against using "inappropriate" email addresses during job application-related correspondence (Augustine, 2006; Fitzpatrick, 2010; Hobbs, 2010; Johnson, 2010; LeVanway, 2009, McIntyre, n.d.; Stute, 2010). These warnings suggest that email addresses such as CarpeDiemJane@email.com, RightSizeWronged@email.com, SoLegitIQuit@email.com might not send the "right" message to prospective employers (LeVanway, 2009). While these usernames may be acceptable in one's personal life, non-standard email names have the

potential to send inappropriate messages if used in more formal communications, such as when corresponding with a child's teacher, a business acquaintance, or a prospective employer.

The use of non-standard email addresses during the application process is a real-world phenomenon. Blackhurst et al. (2011) systematically reviewed and coded the email addresses of 14,718 individuals applying to jobs in a U.S. manufacturing distribution center. They found that 25% of the job candidates used email addresses deemed either antisocial (e.g., insanekid2011) or otherwise unprofessional (e.g., armpitfart), causing the authors to conclude, "Yes, people really do apply for jobs with addresses like crazybioch@mail.com" (p. 30). Table 1 shows examples of non-standard email addresses that have been included on the résumés of actual job applicants. Blackhurst et al. (2011) also investigated the relationship between non-standard email addresses and job-related applicant characteristics. They found that applicants with non-standard email addresses (rated by judges as either questionable or inappropriate) scored lower on most of the pre-employment tests they subjected applicants to than people whose addresses judges rated as more appropriate. More specifically, Blackhurst et al. (2011) found that individuals who are evidently less concerned with social desirability (i.e., those using inappropriate non-standard email addresses) score lower on conscientiousness than those using standard email addresses. Conscientiousness is one of the most powerful predictors of high job performance and organizational citizenship behavior (OCB) (Barrick & Mount, 1991, Hough, Eaton, Dunnette, Kamp, & McCloy, 1990; Hurtz & Donovan, 2000; Salgado, 1997). They also found the same to be true for

professionalism, in that those who apply for a job with a less than professional (e.g., non-standard) e-mail address, score lower on professionalism than those who do not. These findings indicate that if a non-standard email address does have a negative impact on how a hiring manager perceives an applicant, that negatively altered perception may, in fact, be warranted.

### **Expectancy Violation Theory**

Expectancy Violation Theory (EVT) is a useful framework for understanding how non-standard usernames may influence the perceptions a hiring manager forms about a candidate. EVT attempts to explain people's reactions to unanticipated behavior. In this case, the theory suggests that managers primarily base their expectations upon social norms and specific characteristics implied in the applicants' communications (McPherson & Yuhua, 2007). Violations of expectancies cause arousal and compel the recipient to initiate a series of cognitive appraisals of the violation (Floyd & Voloudakis, 1999). The theory indicates that positive violations should increase the attractiveness of the violator and negative violations should decrease the attractiveness of the violator (Burgoon & Hale, 1988).

#### **The nature of expectancies.**

Burgoon (1993) defines interpersonal expectancies as enduring patterns of anticipated behavior influenced by individual, relational, and cultural factors. In general, these expectancies have important influences on interpretations of individuals' behavior. They provide a cognitive structure from which to interpret interactions and a framework for understanding others' behavior (Bettencourt, Dill, Greathouse, & Charlton, 1997). Societal

norms provide the grounds for expectations about what is typical and appropriate behavior for a given situation (Burgoon, 1993). For example, in many cultures, individuals are expected to say “thank you” after receiving a gift. If an individual violates that expectancy and does not say “thank you” after receiving a gift, this should cause the gift giver to form a different interpretation of the interaction than if the receiver had not violated the norm.

Expectancies serve as framing devices that define and shape interpersonal interactions (Goffman, 1974) and at the same time they serve as “perceptual filters” that significantly influence how social information is processed (Burgoon, 1993). As relationships develop and context becomes more salient, associated expectancies become less generalized and more specific to the communicators involved (Burgoon, 1993). In general, expectancies tend to develop over time based on: communicator, relationship, and context characteristics (Burgoon, 1993). Communicator characteristics include demographics or personality traits such as biological sex or verbal aggression, while relationship characteristics include power or intimacy variables, such as position in a social hierarchy or comparisons of friendships to stranger relationships. Context characteristics address issues unique to a particular set of interactions and might include the presence of third parties or situational formality.

Noteworthy relationship and context characteristics typify the hiring process – for example, status differentials and situational formality often dictate expectancies when people apply for jobs. During the early stages of the hiring process, there is an expectation (norm) of formality on the part of the applicant due to the power differential inherent in the applicant-

employer relationship and nature of the hiring process (Guest, 2004). Brown (1965) identified this power differential as a universal status norm, which governs how people of unequal status relate to one another. Individuals form status hierarchies that dictate the way they communicate with those above and below them (Brown, 1965). For example, when people of varying status levels meet, they differ in how they address each other. People speak to those of superior status in a distant, respectful way; it is similar to the way they speak to strangers. In contrast, when speaking to subordinates and intimate friends, a more familiar communication style is used. Similar to, an applicant signing his cover letter to a prospective employer “SuperDrunk” instead of “Sincerely, Thomas R. Gissel, M.A.,” a non-standard email username conveys a level of informality inappropriate for the relationship, thus violating an expectation held by the employer and society at large.

Due to the socially-constructed nature of expectancies, norm violations are highly dependent on not only the relationship but also the context in which they occur (Burgoon, 1993). For example, some people may consider the use of profanity to be acceptable in contexts such as bars, some sporting events, or in the privacy of their own homes. However, there are other contexts, such as schools, churches, and many places of business where people do not consider profanity socially acceptable. People who violate social norms are often subject to negative evaluations by those around them. Research has shown that others perceive employees who violate the social norm of conversational formality in the workplace by using profanity as socially inept and untrustworthy (Hamilton, 1989; Winters & Duck, 2001). Like profanity, non-standard email usernames used by applicants may introduce an



unexpected element of informality into work-related communications. As suggested above, individuals who violate context-specific norms are subject to judgment and evaluation by those around them.

### **The consequences of expectancy violations.**

EVT holds that a violation of expectations, defined as behavior that deviates from or is inconsistent with currently held expectations, triggers a chain of events directed at explaining its occurrence (Burgoon, 1993; Burgoon & Hale, 1988). Violations elicit an orienting response in receivers that leads them to interpret and evaluate the behavior in question. EVT proposes that the combined effect of the expectedness of the behavior and the valence associated with it (positive or negative) helps determine outcomes. Burgoon and Hale (1988) note that these outcomes result from a two-stage process during which the perceiver first attempts to make sense of the violation (to interpret it) and then evaluates it based on the interpretation assigned to it, taking into account the context and violator. Empirical research on EVT supports this proposed mechanism (Branscombe, Wann, Noel, & Coleman, 1993; Jackson, Sullivan, & Hodge, 1993; Jussim, Fleming, Coleman, & Kohberger, 1996).

### **Violating Email Username Expectations during Selection**

EVT suggests that when an employer encounters materials (e.g., a résumé) from an applicant whose email username violates an expected norm, the employer will first attempt to make sense of the violation (to interpret it) and then evaluate it (and by extension the job candidate) based on that interpretation. Expectancy violations shift the perceiver's attention

from the interaction to the violation, often leading to social evaluations of the violator (Floyd & Voloudakis, 1999). Thus, when the employer recognizes that a candidate's username has violated the expected norm, his or her attention is distracted away from the candidate's stated job qualifications (education, experience, skills) and directed towards the norm violation. Following this orienting response/attentional shift, the Burgoon and Hale (1988) process model suggests the reviewer is likely to interpret the email username in the context of the violation - with reduced attention paid to the stated qualifications - and then evaluate the candidate based on that interpretation.

Figure 1 reflects the process described above with two contrasting scenarios: one when there is no username norm violation and the other when a norm violation occurs. As shown in Figure 1, characteristics of the context and the relationship between the individuals involved (in this case employer/job applicant) shape email address norms which in turn influence employer expectancies about what behavior is appropriate for a job candidate. A norm violation diverts attention away from the natural "next step," which under normal circumstances entails a concerted focus on interpreting the data (e.g., résumé qualifications) the applicant has explicitly communicated. As indicated by the dashed arrows in the lower half of Figure 1, the norm violation does not completely shift the employer's attention away from the candidate's application materials, but it does introduce a new source of information (sometimes called "the accidental résumé;" Davison & Maraist, 2009), which is considered alongside the official materials submitted by the applicant. Ultimately, both the interpretation of the norm violation and the explicitly communicated qualifications influence the final

evaluation of the applicant.

To be clear, EVT does not hold that all violations are unfavorable and will influence the individual perceiving them in a negative way. In fact, evaluators will perceive and react to some violations positively. For example, Betterncourt et al. (1996) presented job résumés that positively violated or did not violate stereotyped expectancies for female and male job applicants. The results showed evaluations of female and male targets were more positive when they violated stereotyped expectations for their gender group. More often, however, expectancy violations have been found to have a negative effect (Burgoon & LePoire, 1993), with individuals who violate expectations evaluated less favorably than those who follow expected norms (Johnson & Lewis, 2010).

### **Anticipated Effects of Email Norm Violations**

As noted, a non-standard email username is one that deviates from the normative combination of the applicant's first and last name (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009). Although a great deal of popular press has addressed the topic, no prior published research has examined the effects of non-standard email usernames on reviewers' evaluations of job candidates. However, there have been calls for this type of study, and there has been research demonstrating that applicants with email addresses deemed appropriate score higher on pre-employment assessments of conscientiousness, professionalism, and experience when compared to applicants with email addresses deemed questionable or inappropriate (Blackhurst et al., 2011).

Various literature bases relevant to the employment domain provide clues regarding

the expected consequences of violations of email address norms when applying for a job. As shown in Figure 2, one should expect interview recommendations to be affected because of the norm violation's influence on how interviewers perceive an applicant's social skills, competence, and global favorability.

### **Social skills.**

According to the Occupational Information Network (O\*NET), social skills, defined broadly are “developed capacities used to work with people to achieve goals;” they represent one of the six identified skill types that help to determine a candidate's fitness for a given occupation (O\*NET, n.d.). Green (2000) elaborates on this concept by defining one with good social skills as having the propensity to behave in a manner conducive to the organization's objectives. They represent individual behavior in relation to norms of social contract compliance in the work situation (Green, 2000). Presumably, behavior that violates norms pertaining to status differentials and situational formality is not conducive to most organizations' objectives. Consequently, one should expect that the violation of a standard email address norm would adversely affect perceptions of an applicant's social skills.

### **Perceived competence.**

Competence is a broad term that indicates sufficiency (i.e., a state of being “good enough”) of knowledge and skills that enable one to act effectively in a wide variety of situations (Le Diest & Winterton, 2005). The linguistic definition of competence is a speaker's internalized knowledge both of the grammatical rules of a language and of the rules for appropriate use in social contexts (Bagaric & Djigunovic, 2007). A violation of the rules

for appropriate use in social contexts, such as using a non-standard email username, represents a lack of linguistic competence, or knowing what to say to whom in what circumstances and how to say it (Hymes, 1972). Johnson and Lewis (2010) and Hamilton (1989) found that supervisors and coworkers perceive individuals who use profanity and thereby violate the expected norm of formality in the workplace as incompetent. Applicants violating the norm of formality in the workplace as well as the employer-job applicant relationship by using a non-standard email username may be subject to similar perceptions. This is because the violation may be interpreted as a failure to communicate appropriately with others (peers, supervisors, subordinates, and clients), which is essential to effectiveness and competence in a wide variety work contexts. Evaluators may also deem this to be disrespectful to the applicant-employer relationship and the conventional procedure for the job application process.

**Global favorability.**

Burgoon (1993) hypothesized that a norm violation often results in an emotionally intense reaction on the part of the individual perceiving the violation, which in turn colors the global evaluation of the violation and by extension the violator. In other words, general, global evaluations reflect the emotional intensity and reaction elicited by the unexpectedness of the norm violation's presence. Bettencourt, Dill, Greathouse, and Charlton (1997) found support for this hypothesis. Their results suggest that when a person's behavior violates a relevant category-based expectancy, the experience of unexpectedness for the perceiver influences the perceiver's global, affect-related evaluations. Also in support of this

contention, Jackson, Sullivan, and Hodge (1993) found that their expectancy-violation manipulations affected only participants' "overall evaluations" of the target. This pattern of findings suggests that an expectancy violation might trigger a global affective reaction, which influences global evaluations of favorability or liking.

### **Interview recommendation.**

Traditionally, during the hiring process, candidates submit résumés and other application materials to employers, hiring managers, or Human Resources personnel who review the information in order to decide which applicants to recommend for an interview. This recommendation often represents the primary behavioral outcome of application screening. Perceptions of the candidate's social skills, competence, and global favorability presumably influence whether an employer will schedule an interview. Non-standard email addresses should influence the probability that a candidate will advance to the interview stage of the selection process because they likely affect such perceptions, Figure 2 depicts this model, whereby the effect of an email username expectancy violation on interview recommendations is influenced by perceptions of the candidate's social skills, competence, and global favorability. Note that Figure 2 is not intended to be a comprehensive model of every factor that influences interview recommendations. However, it does provide a useful starting point for depicting relationships among the key constructs that one might expect non-standard email addresses to affect when applying for a job.

### **Study Hypotheses and Research Question**

In light of the preceding rationale, this study tests a series of predictions relevant to

the use of non-standard email addresses during the application process. In accordance with Figure 2, the first set of hypotheses examines what happens when employers, hiring managers, or decision makers detect an email username that violates their expectations.

**Hypotheses 1-3: Interview recommendations will be mediated by perceptions of an applicant's social skills (H1), competence (H2), and global favorability (H3) when applicants use email usernames that violate the expectations of resume evaluators.**

Next, I specifically test whether using a non-standard email address when applying for a job violates expectancies. I also test the proposition that decision makers will perceive applicants with non-standard usernames more negatively than they will perceive those with standard email addresses.

**Hypothesis 4: Evaluators will assign higher expectancy violation ratings to applicants with non-standard usernames than to applicants with standard usernames.**

**Hypothesis 5: Evaluators will assign lower social skills ratings to applicants with non-standard usernames than to applicants with standard usernames.**

**Hypothesis 6: Evaluators will assign lower competence ratings to applicants with non-standard usernames than to applicants with standard usernames.**

**Hypothesis 7: Evaluators will assign lower global favorability ratings to applicants with non-standard usernames than to applicants with standard usernames.**

By definition, a non-standard email username is one that deviates from the formulaic combination of the applicant's first and last name (Fitzpatrick, 2010; Johnson, 2010;

LeVanway, 2009). This definition is broad, allowing for much variability in what one might determine to be non-standard. For example, a non-standard email username could be meaningless, consisting of non-lexical characters such as a random string of numbers. In addition, when they have meaning, non-standard usernames may vary with regard to their valence. Valence, as used in the psychology of emotions and emotional responses, refers to the intrinsic subjective attractiveness (positive valence) or aversiveness (negative valence) of an event, object, or situation (Frijda, 1986).

Not all non-standard email usernames are created equal. Accordingly, it is quite possible that people reviewing application materials do not react to all of them the same way. Perhaps the effect of a non-standard email address depends on its valence.

**Research Question 1: Do the effects of a non-standard email username depend on the username's valence?**

## **Method**

### **Participants**

Participants ( $N=252$ ) consisted of business professionals with managerial experience recruited through personal contacts of the lead author, Facebook, and word of mouth ( $N=100$ , 40% of sample), as well as Mechanical Turk ( $N=152$ , 60 % of sample), as described below. Participation was voluntary. Managerial experience was required in order to be eligible to participate in the study. For study purposes, this was operationalized as follows: (a) at some point during the participant's professional career, having at least one person directly reporting to the participant for at least half (six months or more) of a calendar year for at least



five years (the five years did not need to be consecutive), (b) being directly involved in the hiring process at some point in their professional career, or (c) being responsible for résumé screening at some point in their professional career.

An *a priori* power analysis was conducted using G\*Power 3 (Faul, Lang, & Buchner, 2007). The results indicated that with a minimum sample size of 180 (45 participants in each condition), analyses using an *F* statistic with four conditions would have adequate statistical power at a value of 0.80 for  $\alpha=.05$  to detect a medium effect size of 0.25 (see Cohen, 1992). Thus, the present study had a sample size that could adequately detect at least a medium effect as described by Cohen (1992).

The age of the participants ranged from 18 to 74 ( $M=33.5$ ,  $SD=11.1$ ); 60% of the sample was male. Forty-six percent of respondents reported their ethnicity as Asian, 38% Caucasian, 11% reported themselves as being African-American, 3% reported themselves as being Hispanic, and 2% reported their ethnicity as “Other.” Respondents were generally well educated, with 89% reporting holding a Bachelor’s degree or higher. Collectively, the sample had ample managerial and hiring experience. Altogether, 78% of respondents reported having had at least one person directly reporting to them for at least half of a calendar year for at least five years. Eighty-seven percent of respondents reported having been directly involved in the hiring process, and 74% reported having been responsible for résumé screening at some point during their professional career.

Recruitment entailed emailing an invitation to participate in the study to eligible individuals in the author’s personal and professional network. The lead author also placed a

recruitment posting on her Facebook page. This post contained the same information as the recruitment email. In addition, participants were encouraged to invite friends, family, or colleagues who might be eligible and interested to participate. Participants were also recruited through Mechanical Turk (cf., Grohol, 2011), an online marketplace which allows researchers to hire individuals for the purpose of completing studies. To control for language and culture effects, recruitment and participation were restricted to individuals residing in the United States. Participants recruited through Mechanical Turk were paid 25 cents for their participation in the study. Those recruited through the author's personal contacts could request a written summary of the results of this research in exchange for their participation.

### **Design and Procedure**

This study employed a between subjects design. The independent variable was the type of email address, standard vs. non-standard. Within the non-standard email type, there were 3 levels, negative, neutral, and positive valence. Participants were randomly assigned to review an application that included one of the four email username types (standard, non-standard negative, non-standard neutral, or non-standard positive). The primary dependent variables were expectancy violation, participants' evaluations of the applicant's social skills, competence, and global favorability, as well as participants' willingness to recommend the applicant for further screening (i.e., an interview).

Respondents assessed all measures for this study by replying to web-based surveys. After reading the informed consent form, individuals who decided to participate clicked on a link sending them to a web page that explained the task they were to complete.

Participants received a fictitious cover story intended to engage and invest them in the task. In particular, the cover story purposefully lead them to believe that due to the vast number of résumés made available by large job posting websites such as *Careerbuilder.com* and *Monster.com*, organizations were receiving more résumés than they could handle. Furthermore, these companies were looking for efficient ways to screen the large volume of résumés and keep costs down. Participants believed that this study was part of a larger pilot study investigating the feasibility of outsourcing the task of résumé screening for entry-level jobs to individuals outside of the hiring organization, such as college students or individuals with professional experience seeking to earn extra money. After reading the cover story, respondents evaluated the résumés of job applicants.

Participants received a set of written instructions explaining their role. The instructions explained to participants that they would receive the résumé of an individual applying for the position of a Customer Service Representative and that their task would be to evaluate how suitable that individual was for the position. Respondents were to examine the résumé carefully, to rate the applicant on the various evaluation criteria, and to indicate whether the company should invite the applicant to an interview. After they had finished reading these instructions, participants checked a box at the bottom of the page affirming that they had read and understood the instructions. Participants then began rating the résumé in earnest keeping in mind the position description.

After learning about the job applicant via his résumé, participants were asked to complete a questionnaire in which they rated the applicant's social skills, competence, and global

favorability. They also indicated the degree to which they agreed the company should invite the applicant to an interview. Participants were able to scroll up to view the applicant's résumé again while completing the questionnaire. After completing this assessment, participants completed the final portion of the questionnaire that contained demographic questions and several procedural checks. Respondents were able to indicate whether they could properly access and view the instructions and résumé materials along with a brief set of items assessing the extent to which the applicant's email address was in alignment with their expectations. After completing these questionnaires, participants received thanks for their time and could request a written summary of the results if they were interested in receiving them.

## **Materials**

### **Email username and applicant name.**

All participants received the same job description and résumé, which included information such as education, experience, and the job applicant's name. The only difference between the conditions was the applicant's email address listed at the top of the résumé along with other contact information (telephone number, street address). The applicant's name listed on the résumé was James Anderson. This name is a combination of the most common male first name in the U.S. (James) and the eleventh most common last name in the U.S. (Anderson) ([www.namestatistics.com](http://www.namestatistics.com)). A non-ambiguously gendered name held the variable of applicant gender constant. As it is outside the scope of the current study to investigate the potential effects of domain names, all email addresses used in the study used the domain

gmail.com because it is a common, well-known domain name.

**Standard email username condition.**

For this condition, the email address used on the fictitious résumé was janderson@gmail.com for fictitious applicant James Anderson. This email address employed the standard formula for email username creation by deriving the email username from the applicant's name (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009).

**Non-standard email username conditions.**

Participants randomly assigned to the non-standard email condition received at random one of three non-standard email types: positive, negative, and neutral. None of these non-standard email usernames was a derivative of the applicant's real name, thus meeting the definition of a non-standard email username. A pilot study informed the selection of which non-standard email addresses to use in the study. A total of 255 respondents rated 80 email addresses on a five point Likert scale ranging from -2 (*Strong Negative Reaction to the Phrase*) to +2 (*Strong Positive Reaction to the Phrase*). Real applicants had used these email addresses on real résumés. Respondents had an average age of 36 years, were 62% female, and 77% Caucasian. Thirty-three percent of respondents reported that they were currently working full-time and 22% reported currently working part-time. The email addresses came from two main sources: (a) from a research article published by Blackhurst et al. (2011), which listed the email usernames of various individuals who had applied for entry-level jobs in a U.S. manufacturing distribution center, and (b) from a review of the "Services Offered" section on the website Craigslist.com, noting the email addresses posted by individuals

looking for work.

The purpose of the pilot study was to select two email addresses from each non-standard category (positive, neutral, and negative) that were similarly valenced in both direction (positive or negative) and magnitude (strength of negative or positive valence). Selected email addresses were balanced in magnitude across category. In other words, data from the pilot study was used to select email addresses that were not significantly different *within* category (e.g., the two positive emails were not significantly different from each other) but were significantly different *across* categories (e.g., the negative emails were significantly different from the neutral emails). Based on these criteria as well as the general face-validity of the email's use on a résumé, the following phrases were selected for use as non-standard usernames in this study: greenadvisor ( $M=.55$ ,  $SD=.87$ ), smileyfacegen ( $M=.57$ ,  $SD=.98$ ), Yellow\_Jr ( $M=.00$ ,  $SD=.81$ ), mailings ( $M=.10$ ,  $SD=.86$ ), megabeastzombie ( $M=-.59$ ,  $SD=1.17$ ), and lilwhitedevil ( $M=-.65$ ,  $SD=1.11$ ).

### **Job description and résumé.**

The instructions given to the participants described the primary duties of the available position of Customer Service Representative at a large bank as, “To interact with customers with a focus on providing and processing information in response to inquiries, concerns, and requests about products and services. Successful incumbents possess integrity, are trustworthy, have composure, listening skills, interpersonal savvy, a drive for results, time management, functional and technical skills, are customer focused, and have the ability to develop peer relationships and boss relationships.”

The email username and applicant name were placed on a résumé created by Bertrand and Mullianathan (2003). Bertrand and Mullianathan (2003) obtained hundreds of résumés posted on the websites Careerbuilder.com and Americasjobbank.com by individuals seeking sales, administrative support, clerical services, or customer service positions. They analyzed each résumé's information regarding education, affiliations, previous work, skills and qualifications, as well as references, and then classified it as either upper level management (high) or entry level (low). From this analysis, Bertrand and Mullianathan (2003) chose the most representative of each level (e.g., high and low). For the purposes of this study, one of the "low" level résumés was chosen to represent the fictitious job applicant. This created alignment between the résumé, the job description, and the study's cover story, which indicated a focus on entry-level jobs.

## **Measures**

### **Expectancy violation.**

An eight-item questionnaire created for use in this study assessed the degree to which the applicant's email address aligned with the participant's expectations for email addresses listed on résumés ( $\alpha=.92$ ). A sample item is "The applicant's email address violates rules for expected and accepted behavior." Responses were provided using a 5-point Likert-type scale ranging from "*strongly disagree*" to "*strongly agree*," except the final item, which ranged from "*never*" to "*very often*."

### **Social skills.**

To measure participants' perceptions of the applicant's social skills, Rudman and

Glick's (1999, 2001) social skills index was administered ( $\alpha=.94$ ). This measure used the ratings of 10 characteristics (kind, supportive, warm, sincere, helpful, likable, friendly, popular, good listener, sensitive to others' needs) to form a general *social skills* index. Participants rated the extent to which characteristics matched their perceptions of the applicant on scales ranging from 1 (*not at all*) to 5 (*extremely*).

### **Perceived competence.**

Expectations of the applicant's competence were assessed with three items ( $\alpha=.86$ ) obtained from Heilman and Okimoto (2008). The three items asked participants to "check the box corresponding to your evaluation of the applicant's expected job performance if hired to the position." Evaluators responded to three separate five-point response scales provided with the following anchors: not competent/competent, not productive/productive, and ineffective/effective. Higher scores reflected greater degrees of perceived competence.

### **Global favorability.**

Participants indicated their beliefs and feelings about the applicant on three semantic differential scales created by Bettencourt et al. (1997). To measure global favorability, the following word pairs were used: not likeable/likeable, unfavorable/favorable, bad/good. Evaluators rated each item on a five-point scale. An average across items formed an overall global favorability score. Past research using this scale has found a coefficient alpha of .79 (Bettencourt et al. 1997). However, in the current study, the reliability of this three-item scale was notably lower ( $\alpha=.67$ ). Removing the not likeable/likeable item increased the scale reliability to an acceptable level ( $\alpha=.87$ ), resulting in a 2-item scale used for all subsequent



analyses.

### **Interview recommendation.**

Participants' used four items created for this study to recommend whether to invite the applicant to the company for an interview. On the first three items ( $\alpha=.86$ ), participants rated the degree to which they agreed with statements such as, "The organization would be wasting its time interviewing this applicant." Rating scale anchors ranged from "*strongly disagree*" to "*strongly agree*" on a five point Likert-type scale. The average of these three items formed an overall interview recommendation score. The final item was dichotomous and participants responded yes or no to indicate whether they would recommend inviting the applicant for an interview. This item was included for descriptive purposes and analyzed separately from the previous three items.

### **Perceived résumé quality.**

For exploratory purposes, this study included a three-item scale to assess perceived résumé quality ( $\alpha=.80$ ). This scale created for use in this study investigated participants' objective evaluations of the quality of the résumé content, rather than the applicant. A sample item is "Overall, employers would be disappointed with the quality of this résumé." Participants responded on a 5-point Likert-type scale ranging from "*strongly disagree*" to "*strongly agree*."

## **Results**

### **Data Cleaning and Preliminary Analyses**

A total of 286 participants completed the study; however eight cases were removed

due to respondents reporting that they did not meet the eligibility requirements stated in the study description. In particular, these respondents reported they did not have the prerequisite amount of managerial experience described earlier. Twenty additional cases were removed due to respondents who failed to adequately respond to any one of three attention check items included to detect respondents who were not carefully reading each item or its associated response options. An example item is, “Please mark ‘disagree’ for this question.” To maintain independence of observations, six additional cases were removed because it was discovered that the participant had completed the survey a second time; data from the second attempt were not used. This produced the final sample size of 252.

Prior to testing the research hypotheses, all measured variables were checked for violations of normality assumptions. All study variables were within acceptable ranges of skewness and kurtosis. Table 2 provides the descriptive statistics and correlations among the study’s measured variables. To explore the sample’s prior exposure to the problem under investigation, participants indicated how often they had seen inappropriate email addresses used in professional communications. Participants answered this question last to prevent priming the sample to the problem in advance. Sixty-six percent reported seeing inappropriate email addresses used in professional communications either “sometimes” or “frequently.”

### **Consequences of Norm Violations**

One of the primary questions driving this investigation pertained to whether and how email username expectancy violations affect decision makers’ perceptions of applicants’

qualifications. In the proposed model, a continuous exogenous variable (participants' ratings of the degree to which the applicant's email address violates expectations) exerts its influence through a set of endogenous intervening variables (perceived competence, social skills, and global favorability), to an outcome variable (interview recommendation). A path analysis was conducted to test this model, as specified by Hypotheses 1-3 (see Figure 3). After correlating the three intermediary variables (perceived social skills, perceived competence, and global favorability), the model fit the data well according to Hu and Bentler's (1999) guidelines ( $\chi^2=.519(1)$ ), with a Tucker Lewis Index (TLI)=1.009, Standardized Root Mean Square Residual (SRMR)=.006, and Root-Mean-Square Error of Approximation (RMSEA)=.009. As shown in Figure 3, five of six hypothesized paths were significant ( $p<.01$ ), with the only path not reaching significance being the one linking social skills to interview recommendation. This indicates that using an email address that résumé reviewers' deemed inappropriate triggered negative perceptions of social skills, competence, and global favorability, with the latter two variables subsequently influencing interview recommendations. Thus, Hypotheses 2 and 3 were supported, and Hypothesis 1 was partially supported.

### **Standard vs. Non-standard Email Address**

Next, analyses were conducted to determine whether the use of non-standard email addresses creates an expectancy violation and an unfavorable impression of job applicants. Table 3 shows the average ratings assigned to applicants using standard vs. non-standard

email addresses. An omnibus MANOVA was conducted to test whether mean differences between broad email category (standard vs. non-standard) on the combination of measured variables were likely to occur by chance. The omnibus MANOVA was significant (See Table 4), which indicates the use of a non-standard email address on a résumé does influence selection-related perceptions. Given the significance of the overall test, univariate main effects were examined. Results indicated that using a non-standard email address violated an expectancy and negatively affected perceptions of the applicant on each outcome variable studied and , thus, supported Hypotheses 4-7.

### **Valence of Non-Standard Email Addresses**

To address this study's research question, a more nuanced view of the results investigated the role of the email username's valence by subdividing the non-standard email category by valence (positive, negative, or neutral). As discussed previously, two email addresses were included within each category. The purpose of this was to allay a concern that any effects found would be idiosyncratic to a particular email username selected for investigation. None of the t-tests for independent samples performed within each of the three pairs of non-standard emails (positive, neutral, and negative) revealed significant differences in reaction to email addresses. Because there were no reliable differences between the two email usernames in each of the three specific email categories the conditions sharing a common valence as intended, producing three non-standard username categories for analysis. Table 3 portrays descriptive statistics (means, standard deviations) for the study dependent variables for each specific email category.

MANOVA results (see Table 5) revealed a significant multivariate main effect for email category (standard, non-standard-positive, non-standard-neutral, non-standard-negative). Given the significance of the overall test, the univariate main effects were examined. Significant univariate main effects for email category were obtained for all measured variables (See Table 5). Further investigation of these effects, involving post-hoc comparisons with Bonferroni corrections substantiated the patterns suggested by the mean values shown in Table 3. All three non-standard email types violated participants' expectancies, as evidenced by significant ( $p < .05$ ) differences between the standard email username condition and each of the three non-standard conditions on the expectancy violation outcome measure.

Next, the effects of each non-standard email type on perceived social skills, competence, global favorability, and interview recommendation were tested. For each outcome measure, the non-standard-positive and non-standard-neutral email categories were not significantly different from the standard email condition, but the non-standard-negative email condition was consistently and significantly different from all three other conditions (standard, non-standard-positive, and non-standard-neutral). Therefore, in response to Research Question 1, the consequences of non-standard email addresses in an application context do appear to depend on the valence of the non-standard email address used.

Descriptive statistics summarizing the percentage of respondents who recommended inviting the applicant for an interview corroborate this conclusion. As shown in Figure 4, participants recommended only 51% of applicants with negatively valenced non-standard

email usernames for further screening. Conversely, participants recommended 80-83% of those with standard, non-standard-positive, or non-standard-neutral email usernames for advancement to the next stage of the screening process. A chi-square test confirmed that this differential endorsement rate was significant ( $X^2=19.16(3)$ ,  $p<001$ ).

Finally, for exploratory purposes, responses to items pertaining to the objective merits of the résumé (i.e., résumé quality ratings) were examined via a follow-up ANOVA accompanied by pairwise comparisons with a Bonferroni correction. Rather than asking participants to evaluate the applicant, these items asked for evaluations of the résumé. Consistent with the pattern of results described above, ratings within the standard ( $M=3.06$ ,  $SD=.81$ ), non-standard-positive ( $M=3.12$ ,  $SD=.96$ ), and non-standard-neutral ( $M=3.23$ ,  $SD=.81$ ) conditions were similar to each other and significantly ( $p<.05$ ) higher than ratings assigned to the résumé in the negatively valenced non-standard email username condition ( $M=2.45$ ,  $SD=.72$ ).

## Discussion

One of the primary goals of this study was to investigate the influence of an email username expectancy violation on decision makers' evaluations, judgments, and perceptions of a job applicant. Results of the path analysis indicated that email expectancy violations in an application context may reduce a job seeker's chances for an interview. However, the experimental manipulation indicated that expectancy violations do not always have these negative effects.

The experimental component of this study tested whether different types of non-standard email addresses violate expectancies and affect evaluations of job applicants. Those evaluating job candidates viewed a non-standard email address on a résumé as an expectancy violation- more so for negative than a positive or neutral email address. However, only non-standard email addresses with a negative connotation or valence triggered unfavorable evaluations of the job candidates' social skills, competence, global favorability, and suitability for further screening (i.e., interview recommendation). Non-standard email addresses with neutral and positive valences did not significantly affect perceptions of applicants. Note that the inclusion of more than one non-standard-positive, non-standard-neutral, and non-standard-negative email address in this experiment helped ensure the results were not idiosyncratic to the particular email address chosen for investigation. Taken together, these findings are consistent with Expectancy Violation Theory, which holds that although expectancy violations often adversely affect perceptions of the violator, not all expectancy violations have negative effects.

This study is an important first step in understanding how expectancy violations present in the hiring process can influence important selection-related perceptions of the applicant. Several strengths are worth pointing out. First, this study brings theory to bear on a real-world phenomenon that has not previously received sufficient empirical attention. While the topic has received much attention in the popular press, no prior published work has examined decision makers' reactions to non-standard email addresses during the hiring process. Second, this study utilized an experimental design with random assignment, enabling conclusions regarding the causal effect of non-standard email usernames. Finally, to strengthen its generalizability, the study sample consisted of individuals with real world managerial and hiring experience.

### **Limitations and Future Research**

Despite its strengths, it is important to acknowledge this study's limitations. Being a preliminary study and the first of its kind, there are other potential variables that researchers could explore to further investigate the impact of expectancy violations during the selection process. For example, this study held the gender of the applicant constant; it therefore remains unclear how non-standard email addresses influence selection-related perceptions of female applicants. Additionally, this study only investigated one job type at one job level (i.e., entry level). Future research could investigate the effects different types of non-standard email usernames across different types of jobs (e.g., tattoo artist, software engineer, or college professor) and at different job levels, such as the mid-level manager or executive levels.



Future researchers would also be wise to leverage the EVT framework used in the current study to investigate potential moderators of the effects found in the current study. As discussed earlier, expectancies serve as framing devices that define and shape interpersonal interactions (Goffman, 1974) and, in general, are believed to develop based on communicator, relationship, and context characteristics (Burgoon, 1993). These characteristics of the communicator (e.g., gender, personality traits, other demographics), relationship (e.g., status differences, familiarity of communicators), and context (e.g., formality of the situation) are what are thought to shape expectancies. Thus, communicator, relationship, and context characteristics that alter the expectancy may also moderate the effect of nonstandard email addresses on assessments of job applicants. For example, characteristics that heighten the expectation of formality or the status differential should serve to increase the effect shown here. Characteristics that lower these or other expectations may reduce the effect uncovered in this study. Through this lens, future researchers may want to consider potential moderators of the effects uncovered here. For example, perhaps the formality context is heightened or reduced for certain types of jobs and this affects how acceptable it is to use a non-standard email username across different contexts. In a similar vein, decision makers might react to an applicant with the email address “megabeastzombie” differently if the applicant was applying for a seasonal position at a Halloween supply store.

Another interesting topic for future investigation is whether the alignment existing between a non-standard email address and the industry or position in question, is helpful, detrimental, or non-applicable.

Future researchers could also investigate the mismatch of résumé quality and email category (e.g., high quality résumé with a non-standard-negative email address or a low quality résumé with a standard or non-standard-positive email address) and its impact on perceptions about applicants.

A final suggestion for future research could entail studying the relationship between résumé email address and future job performance in order to investigate whether applicant email address is a valid predictor of future performance or a potential source of bias decision makers need to be aware of when reviewing résumés.

### **Theoretical and Practical Implications**

The results of this study interpreted in the context of Figure 1, suggest that an attentional shift takes place when an email address norm is violated. The hypothesized attentional shift presumably reduces attention paid to the stated qualifications on the résumé by introducing a new source of information that gets considered alongside the official materials submitted by the applicant. This results in a final evaluation that is based on both the interpretation of the norm violation and the explicitly communicated qualifications. To be clear, this study did not explicitly test whether participants paid more or less attention to the stated qualifications on the résumé when presented with a non-standard email address. However, the results of this study appear to be consistent with the proposed attentional shift triggered by the expectancy violation in the Figure 1 model. Future research could more explicitly test this aspect of the proposed model – for example, by using eye tracking techniques or by testing recall of specific résumé details.

The current study's results are also consistent with Expectancy Violation Theory (EVT). As such, EVT is a viable theoretical framework to help guide research in this area. For example, researchers should be able to use the EVT framework to investigate the influence of non-standard email addresses across different job types and job levels as discussed previously. The current study was the first to use EVT to investigate the role of email norm violations within the selection context and its promising results could spur further exploration in this stream of research.

The practical implications of this study speak primarily to three audiences. The first of these is job applicants. Current and future job applicants need to be cognizant and aware of the potential impacts of deviating from the standard email address formats used in formal communication. This study's results suggest that if a decision maker reviewing a résumé perceives an applicant's email address negatively, it could influence his/her evaluation of that job applicant in spite of the stated job qualifications, and could even cause the removal of that applicant from further consideration for the position.

The second audience this study speaks to consists of business professionals charged with reviewing or screening applicant résumés. This study's results suggest that non-standard email addresses do have the potential to influence selection-related perceptions about job applicants. While the applicant email address "asshat@gmail.com" may be perceived as negative, it also may be completely unrelated to and therefore not predictive of future job performance. In the absence of additional research, it is impossible to know whether removing that applicant from consideration is warranted. For now, the practical, take-home

message for employers entails realizing how email addresses (and other norm violations) can influence perceptions and judgments when making selection decisions.

Journalists, the popular press, and résumé consultants collectively comprise the third audience that should take note. This study represents the first empirical test of advice commonly offered by résumé consultants and the popular press, i.e., “Do not deviate from the standard email address format.” In this study, however, only non-standard-email addresses with negative connotations had adverse effects, suggesting that the advice above is not always warranted.

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performance on reactions to job applicant resumés. *Journal of Applied Psychology*, 63(2), 252-254.

Table 1

*Example Non-Standard Email Addresses Found on Actual Résumés*

Non- Standard Email Addresses	Source Citation
CarpeDiemJane@email.com	LeVanway, 2009
RightSizeWronged@email.com	LeVanway, 2009
SoLegitIQuit@email.com	LeVanway, 2009
joeslovemuffin@email.com	Stute, 2011
hotchick@email.com	Stute, 2011
cutecountrydncr@email.com	Stute, 2011
duckfeet@email.com	Stute, 2011
religiousman@email.com	Stute, 2011
sxykitten@email.com	Stute, 2011
sexygirl@email.com	Hanson, 2010
iamasideshowfreak@email.com	Lau, 2011
virinmaiden@email.com	Lau, 2011
ballershotcaller@email.com	Lau, 2011
goatsflingingpoo@email.com	Amundson, 2008
eightballjunkie@email.com	Blackhurst et al., 2011
BlazinWeedClown@email.com	Blackhurst et al., 2011
Servent4christ@email.com	Blackhurst et al., 2011
ilovalamp@email.com	Blackhurst et al., 2011

*Note.* All email addresses above show real existing email usernames reported to have been used on real résumés. However, the domain names have all been changed to “@email.com” to protect the anonymity of the individuals with these email addresses.

Table 2

*Descriptive Statistics and Intercorrelations among Study Variables*

Measured Variable	M	SD	1	2	3	4	5
1. Expectancy Violation	2.85	1.02	(.92)				
2. Perceived Social Skills	3.12	.87	-.25**	(.94)			
3. Perceived Competence	3.73	.78	-.40**	.59**	(.86)		
4. Global Favorability	3.58	.93	-.36**	.72**	.80**	(.84)	
5. Interview Recommendation	3.48	.90	-.31**	.60**	.79**	.80**	(.86)

*Notes.*  $N=252$  for all correlations. Estimates of scale reliabilities are presented in parentheses on the diagonals.

\*\* $p < .01$  (two-tailed).

Table 3

*Descriptive Statistics for the Study Dependent Variables by Study Condition*

Measured Variable	Broad Email Categories				Non-Standard Emails Broken into Valence-Specific Categories					
	Standard (N=107)		Non-Standard (N=145)		Positive (N=46)		Neutral (N=54)		Negative (N=45)	
	M	SD	M	SD	M	SD	M	SD	M	SD
Expectancy Violation	2.04	.73	3.45	.76	3.27	.68	3.29	.70	3.83	.80
Perceived Social Skills	3.24	.81	3.05	.89	3.48	.61	3.08	.77	2.56	1.03
Perceived Competence	3.91	.61	3.60	.86	3.86	.64	3.88	.69	3.00	.96
Global Favorability	3.83	.77	3.40	.99	3.71	.85	3.67	.67	2.78	1.15
Interview Recommendation	3.66	.76	3.34	.97	3.56	.78	3.65	.80	2.74	1.07

Table 4

*MANOVA Examining the Effect of Broad Email Category (Standard vs. Non-Standard) on Perceptions of the Job Applicant*

Independent Variable	Multivariate Results				Dependent Variable	Univariate Results			
	<i>F</i>	<i>df</i> (between, within)	<i>p</i>	$\eta_p^2$		<i>F</i>	<i>df</i> (between, within)	<i>p</i>	$\eta_p^2$
Broad Email Category	43.67	5, 242	<.001	.47	Expectancy Violation	115.99	1, 246	<.001	.46
					Perceived Social Skills	3.21	1, 246	.07	.01
					Perceived Competence	8.83	1, 246	.003	.04
					Global Favorability	12.51	1, 246	<.001	.05
					Interview Recommendation	7.69	1, 246	.006	.03

*Note.* *N* = 248. MANOVA = multivariate analysis of variance

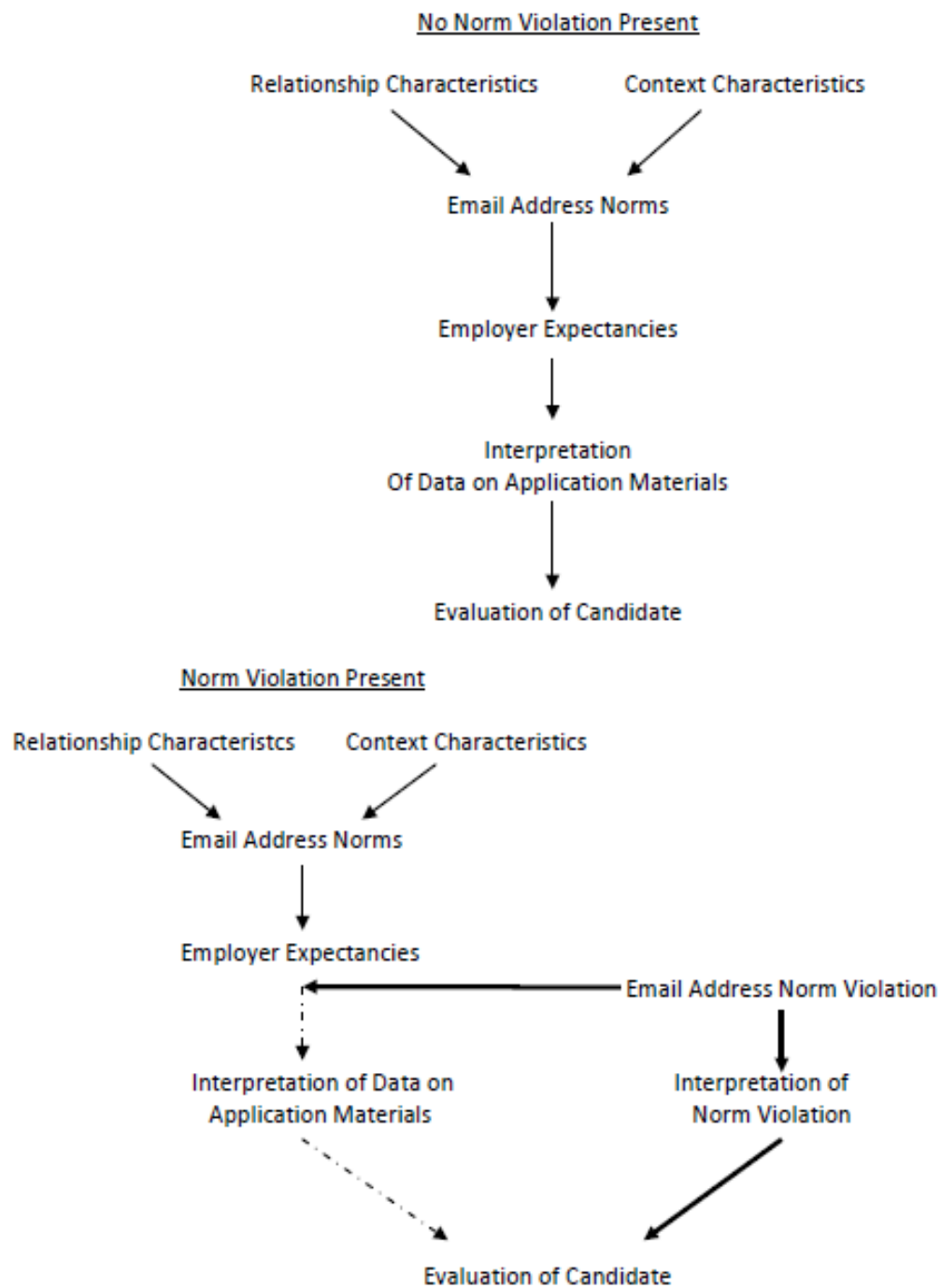


Table 5

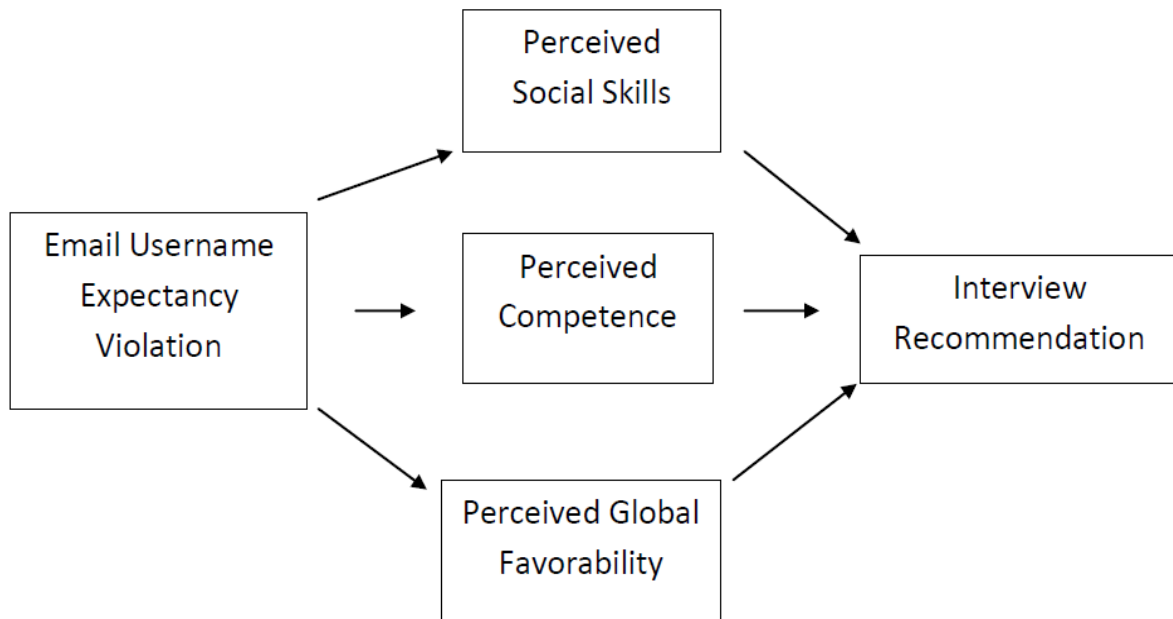
*MANOVA Examining the Effects of Specific Email Category (Standard, Positive, Neutral, and Negative) on Perceptions of the Job Applicant*

Independent Variable	Multivariate Results				Dependent Variable	Univariate Results			
	<i>F</i>	<i>df</i> (between, within)	<i>p</i>	$\eta_p^2$		<i>F</i>	<i>df</i> (between, within)	<i>p</i>	$\eta_p^2$
Specific Email Category	16.76	15, 624	<.001	.26	Expectancy Violation	78.84	3, 636	<.001	.49
					Perceived Social Skills	10.75	3, 636	<.001	.12
					Perceived Competence	18.86	3, 636	<.001	.19
					Global Favorability	16.59	3, 636	<.001	.17
					Interview Recommendation	13.95	3, 636	<.001	.15

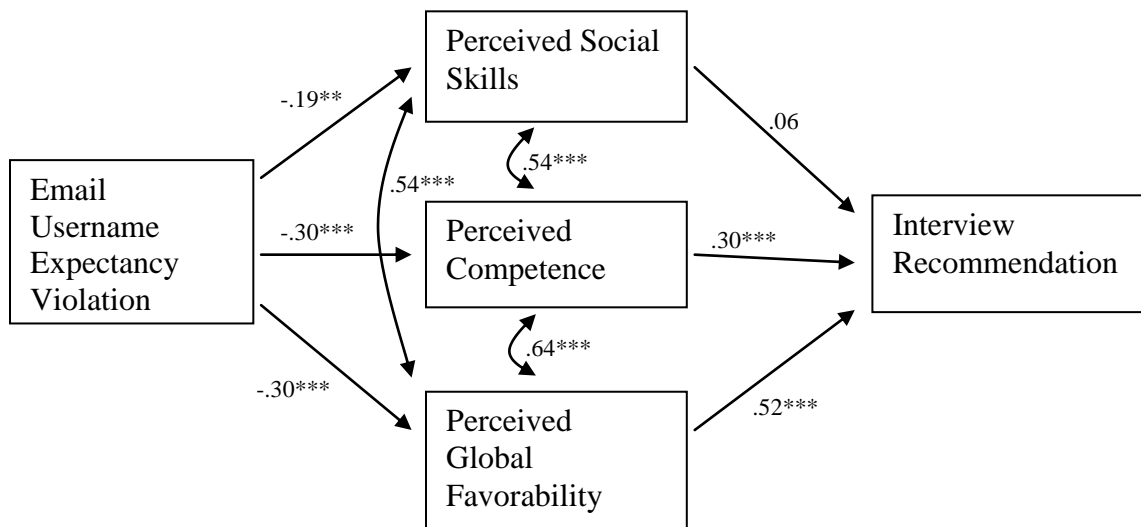
*Note.* *N*= 248. MANOVA = multivariate analysis of variance



*Figure 1.* Email Address Norm Violation Model.

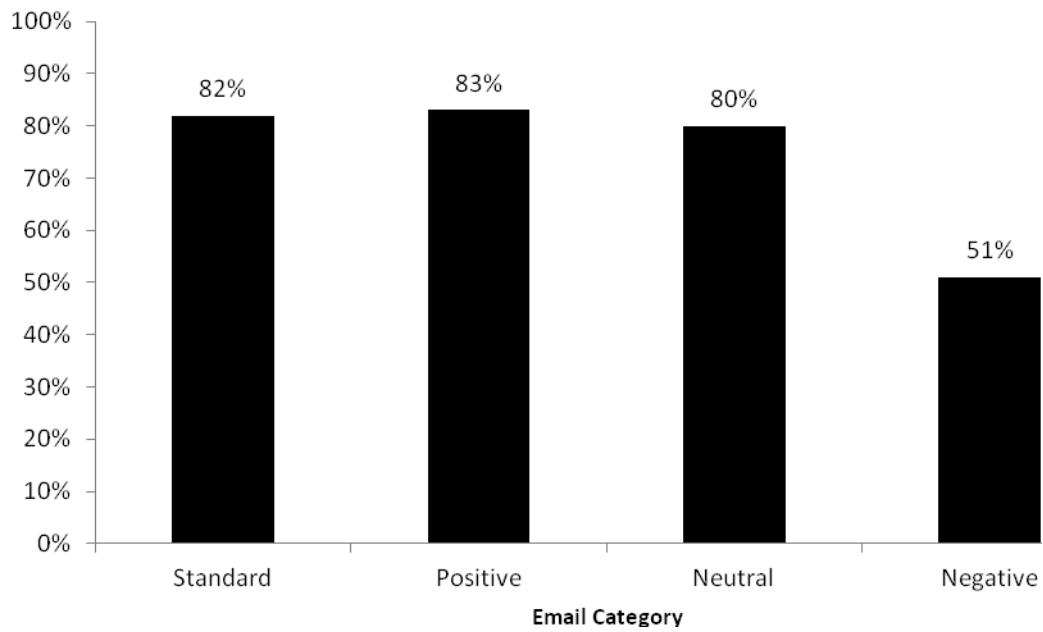


*Figure 2.* Proposed Model of Email Username Expectancy Violation.



Note. \*\* $p < .01$ , \*\*\*  $p < .001$

Figure 3. Path Analysis Model Results of Email Username Expectancy Violation.



*Figure 4.* Percentage of Respondents Recommending the Applicant for an Interview by Email Category

APPENDICES

Appendix A  
Dissertation Proposal Manuscript

The Effects of Email Address Norm Violations on Evaluations of Job Applicants

by  
Amanda Lynn Gissel

A Doctoral Dissertation submitted to the graduate faculty of  
North Carolina State University in partial fulfillment  
of the requirements for the degree  
of Doctor of Philosophy

Psychology

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2011

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### The Effects of Email Address Norm Violations on Evaluations of Job Applicants

“As an interviewer: When reviewing a resume, I don't care much about the domain. However, if the username is something immature or inappropriate, it suggests that the candidate may not have the decision-making skills that I'm looking for.” (Anonymous HR Manager as quoted in Fitzpartick, 2010)

“As an IT exec, I definitely made judgments against prospective hires based on email addresses (as well as a wide array of other factors). It wasn't uncommon for me to have 100-500 resumes for a single open position, and I didn't care to rely on HR to sort through them, so I did it myself, and I needed some way to get down to a short-list of around 10 people. As such, it was pretty easy to toss a resume because somebody had a goofy email address.” (Mike De Lucia, IT Executive, as quoted in Fitzpatrick, 2010)

It is important to understand what aspects of the job application process and the job applicant affect selection decisions. Many applicant characteristics have been studied over the years, such as name (Bertrand & Mullianathan, 2003; Kaplan & Fisher, 2009; Rosen & Jerdee, 1974; Tyler, McCullough, & Dane, 2009), race (Bertrand & Mullianathan, 2003), gender (Zikmund, Hitt, & Pickens, 1978), marital status (Biggs & Beutall, 1986; Oliphant & Alexander III, 1982), and physical attractiveness (Dipboye, Fromkin, & Wilback, 1975). Some characteristics that have been studied pertain to self-presentation, such as style of dress (Forsythe, 1990), jewelry and hairstyles (Cash & Kilcullen, 1985), the presence of glasses (Harris, Harris, & Bochner, 1982; Lusnar, 1999), cosmetics (Cox & Glick, 1986), and errors in a résumé (Messmer, 2001). Barrick, Swider, and Stewart (2010) found that managers often make “snap judgments” about applicants based on information that is immediately available to them such as the applicant's smile, handshake, clothing, or small talk.

Technology has changed the nature of personnel selection and introduced information about applicants previously unseen by prospective employers. One such piece of information

is the applicant's email address. The purpose of this study is to investigate the influence of an applicant's email address on evaluations, judgments, and perceptions of the applicant.

### **Email Usernames**

Email usernames function similarly to a given/family name in that they are a way for individuals to uniquely identify themselves. However, an email username has a greater potential to shape impressions than a given/family name because it can reflect characteristics other than gender or ethnicity (Blackhurst et al., 2011). The format of email addresses is formally defined in RFC (Request for Comment) 5322 (mostly section 3.4.1) and in RFC 5321. An email address is a string of a subset of ASCII characters separated into two parts by an "@" (at sign), a "local-part," and a domain, that is, local-part@domain. The "local-part," or the part before the @ sign, is typically the username (jsmith), and the part after the @ sign is the name of the domain to which the email message will be sent (e.g., yahoo.com, gmail.com). The local-part, or "username" as it is more commonly known and will be referred to throughout this study, is sometimes assigned by the institution issuing the email address. For example, many universities, large businesses, and government agencies assign their constituents the local-part of the email address. Other times, such as when an individual creates his or her own personal email account (with providers such as Yahoo, Gmail, or Hotmail for example), individuals have the opportunity to choose what the local part of their email address will be. A standard local-part of the email address typically consists of some combination of the first and/or middle initial and the last name (e.g., jrsmith@, jdoe@, tcruise@; Fitzpatrick, 2010; Hobbs, 2010; Johnson, 2010; LeVanway, 2009). This standard

format can be considered normative in that it is commonly suggested by the popular press to use for business or non-personal email communications (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009).

When choosing their own email address, users have the option of deviating from this normative format. They may instead choose to convey something about themselves and create a non-standard email username, such as a Star Wars fan whose username is SithLord[@email.com] or a car enthusiast using badAsschevy[@email.com].

### **The Role of Email Addresses during Selection**

Historically, the selection process involved individuals submitting paper application materials (résumé, cover letter, references) to a potential employer and the employer subsequently reviewing the information received from all applicants. Then, based on the information contained in the application materials, employers decided which applicants should be asked to return for an interview. Although the same basic process is still employed, typically applicants now send much, if not all, information and correspondence electronically (i.e., via email; Tamanini, 2005). As such, email usernames enter the selection process. This happens in at least three ways. One example is when the applicant includes his or her email address in the contact information portion of the résumé along with his or her telephone number and address. Several authors have noted this addition, observing that an email address is often included along with other contact information on a résumé (Benjamin, 2010; Doyle, 2010; Ellis-Christensen, 2010, Hobbs, 2010; McIntyre, n.d.). Another potential way an email username can enter the selection process is when applicants email a résumé or

engage in other email-based correspondence (the initial contact inquiry, scheduling an interview) with a prospective employer (Blackhurst, Congemi, Meyer, & Sachau, 2011; Thompson, Mullins, Robinson, & Halberstadt, 2010). Essentially, any time an applicant emails a prospective employer or the employer emails an applicant, the applicant's email username enters into the selection process. Finally, email usernames can become known to employers if the employer conducts an online search on prospective employees (e.g., "Googling" the applicant). Some job candidates have their email addresses posted online at various sites.

A norm is a rule for expected and accepted behavior (Myers, 2004). A role is an entire set or cluster of norms (Brym & Lie, 2006). Accordingly, the role of a job applicant is characterized by a set of norms, which includes how a job seeker is expected to dress and behave when interacting with a prospective employer. This role also includes rules for expected and accepted email usernames, as documented in the popular press. With the introduction of email addresses into the selection process, there is a burgeoning body of popular press warning against using "inappropriate" email addresses during job application-related correspondence (Augustine, 2006; Fitzpatrick, 2010; Hobbs, 2010; Johnson, 2010; LeVanway, 2009, McIntyre, n.d.; Stute, 2010), suggesting that email addresses such as CarpeDiemJane@email.com, RightSizeWronged@email.com, SoLegitIQuit@email.com might not send the "right" message to prospective employers (LeVanway, 2009). While these usernames may be acceptable in one's personal life, non-standard email names have the potential to send inappropriate messages if used in more formal communications, such as

when corresponding with a child's teacher, a business acquaintance, or a prospective employer.

The use of non-standard email addresses during the application process is a real-world phenomenon. Blackhurst et al. (2011) systematically reviewed and coded the email addresses of 14,718 individuals applying to jobs in a U.S. manufacturing distribution center. They found that 25% of the job candidates used email addresses deemed either antisocial (e.g., insanekid2011) or otherwise unprofessional (e.g., armpitfart), causing the authors to conclude, "So yes, people really do apply for jobs with addresses like crazybioch@mail.com" (p. 30). Table 1 shows examples of non-standard email addresses that have been included on the résumés of actual job applicants. Blackhurst et al. (2011) also investigated the relationship between non-standard email addresses and job-related applicant characteristics. They found that applicants with non-standard email addresses rated by judges as either questionable or inappropriate scored lower on most of the preemployment tests than people whose addresses were rated appropriate by judges. More specifically, Blackhurst et al. (2011) found that individuals who are evidently less concerned with social desirability (such as those using inappropriate non-standard email addresses) score lower on measures of conscientiousness and professionalism than those using appropriate, standard email addresses. e.g., While Blackhurst et al.'s (2011) research provides important information about the characteristics of applicants who choose to use non-standard email addresses, it does not address how such applicants are perceived by prospective employers. The current

study fills this void in the literature, using an Expectancy Violation Theory framework to guide predictions.

### **Expectancy Violation Theory**

Expectancy Violation Theory (EVT) is useful for understanding how non-standard usernames may influence the perceptions a hiring manager forms about a candidate. EVT attempts to explain people's reactions to unanticipated behavior. Expectancies are primarily based upon social norms and specific characteristics of the communicators (McPherson & Yuhua, 2007). Violations of expectancies cause arousal and compel the recipient to initiate a series of cognitive appraisals of the violation (Floyd & Voloudakis, 1999). Positive violations are said to increase the attractiveness of the violator and negative violations decrease the attractiveness of the violator (Burgoon & Hale, 1988).

#### *The Nature of Expectancies*

Burgoon (1993) defines interpersonal expectancies as enduring patterns of anticipated behavior that are influenced by individual, relational, and cultural factors. In general, expectancies are conceptualized as important influences on interpretations of individuals' behavior. They provide a cognitive structure from which to interpret interactions and a framework for understanding others' behavior (Bettencourt, Dill, Greathouse, & Charlton, 1997). Expectancies are grounded in societal norms for what is typical and appropriate behavior for a given situation (Burgoon, 1993). For example, in many cultures, individuals are expected to say "thank you" after receiving a gift. If an individual violates that expectancy and does not say "thank you" after receiving a gift, this should cause the gift



giver to form a different interpretation of the interaction than if the norm had not been violated.

Expectancies serve as framing devices that define and shape interpersonal interactions (Goffman, 1974) and at the same time serve as a type of “perceptual filter” significantly influencing how social information is processed (Burgoon, 1993). As relationships develop and context becomes more salient, associated expectancies become less generalized and more specific to the communicators involved (Burgoon, 1993). In general, expectancies are believed to develop based on: communicator, relationship, and context characteristics (Burgoon, 1993). Communicator characteristics include demographics or personality traits such as biological sex or verbal aggression, while relationship characteristics include power or intimacy variables, such as position in a social hierarchy or comparisons of friendships to stranger relationships. Context characteristics address issues unique to a particular set of interactions and might include the presence of third parties or situational formality.

The hiring process is typified by noteworthy relationship and context characteristics – namely, status differentials and situational formality – which dictate expectancies when people apply for jobs. During the early stages of the hiring process, there is an expectation (norm) of formality on the part of the applicant due to the power differential inherent in the applicant-employer relationship and nature of the hiring process (Guest, 2004). Brown (1965) identified power differentials as a universal status norm, which governs how people of unequal status relate to one another. Individuals form status hierarchies, and the way they communicate with those above and below them is dictated by their relative status in that

social hierarchy (Brown, 1965). For example, when people of varying status levels meet, they differ in how they address each other. People speak to those of superior status in a distant, respectful way; it is similar to the way they speak to strangers. In contrast, when speaking to subordinates and intimate friends, a more familiar communication style is used. Similar to an applicant signing his cover letter to a prospective employer “SuperDrunk” instead of “Sincerely, Thomas R. Gissel, M.A.,” a non-standard email username conveys a level of informality inappropriate for the relationship, thus violating an expectation held by the employer and society at large.

Due to the socially-constructed nature of expectancies, norm violations are highly dependent on not only the relationship but also the context in which they occur (Burgoon, 1993). For example, the use of profanity is often considered socially acceptable in contexts such as bars, some sporting events, or in the privacy of one’s own home. However, there are other contexts, such as schools, churches, and many places of business where profanity is not considered socially acceptable, and people who violate that norm are often subject to negative evaluations by those around them. Research has shown that those violating the social norm of conversational formality in the workplace by using profanity are perceived by others as socially inept and untrustworthy (Hamilton, 1989; Winters & Duck, 2001). Like profanity, non-standard email usernames used by applicants may introduce an unexpected element of informality into work-related communications. As suggested above, individuals who violate context-specific norms are subject to judgment and evaluation by those around them.

### *The Consequences of Norm Violations*

EVT holds that a violation of expectations, defined as behavior that deviates from or is inconsistent with currently held expectations, triggers a chain of events directed at explaining its occurrence (Burgoon, 1993; Burgoon & Hale, 1988). Violations elicit an orienting response in receivers that leads them to interpret and evaluate the behavior in question. EVT proposes that the combined effect of the expectedness of the behavior and the valence associated with it (positive or negative) helps determine outcomes. Burgoon and Hale (1988) described the mechanism through which the outcome is affected as a two-stage process during which the perceiver first attempts to make sense of the violation (to interpret it) and then evaluates it based on the interpretation assigned to it, taking into account the context and violator. Empirical research on EVT supports this proposed mechanism (Branscombe, Wann, Noel, & Coleman, 1993; Jackson, Sullivan, & Hodge, 1993; Jussim, Fleming, Coleman, & Kohberger, 1996).

### **Violating Email Username Expectations during Selection**

EVT suggests that when an employer encounters materials (e.g., a résumé) from an applicant whose email username violates an expected norm, the employer will first attempt to make sense of the violation (to interpret it) and then evaluate it (and by extension the job candidate) based on that interpretation. Expectancy violations shift the perceiver's attention from the interaction to the violation, often leading to social evaluations of the violator (Floyd & Voloudakis, 1999). Thus, when the employer recognizes a candidate's username has violated the expected norm, his or her attention is distracted away from the candidate's stated

job qualifications (education, experience, skills) towards the norm violation. Following this orienting response/attentional shift, the Burgoon and Hale (1988) process model suggests the reviewer is likely to interpret the email username in the context of the violation - with reduced attention paid to the stated qualifications - and then evaluate the candidate based on that interpretation.

The process described above is depicted in Figure 1, which contrasts two scenarios, one when there is no username norm violation and the other when a norm violation occurs. As shown in Figure 1, characteristics of the context and the relationship between the individuals involved (in this case employer/job applicant) shape email address norms which in turn influence employer expectancies about what behavior is appropriate for a job candidate. A norm violation diverts attention away from the natural “next step,” which under normal circumstances entails a concerted focus on interpreting the data (e.g., résumé qualifications) the applicant has explicitly communicated. As indicated by the dashed arrows in the lower half of Figure 1, the norm violation does not completely shift the employer’s attention away from the candidate’s application materials, but it does introduce a new source of information (sometimes called “the accidental résumé;” Davison & Maraist, 2009), which is considered alongside the official materials submitted by the applicant. This results in a final evaluation that is based on both the interpretation of the norm violation and the explicitly communicated qualifications.

To be clear, EVT does not hold that all violations are unfavorable and will influence the individual perceiving them in a negative way. Some violations are, in fact, perceived and

reacted to positively. For example, Betterncourt et al. (1996) presented job résumés that positively violated or did not violate stereotyped expectancies for female and male job applicants. The results showed that female and male targets were evaluated more positively when they violated stereotyped expectations for their gender group. More often, however, expectancy violations have been found to have a negative effect (Burgoon & LePoire, 1993), with individuals who violate expectations evaluated less favorably than those who follow expected norms (Johnson & Lewis, 2010).

### **Anticipated Effects of Email Norm Violations**

As noted, a non-standard email username is one that deviates from the normative combination of the applicant's first and last name (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009). Although a great deal of popular press has addressed the topic, no prior published research has examined the effects of non-standard email usernames on reviewers' evaluations of job candidates. However, there have been calls for this type of study as well as research demonstrating that applicants with email addresses deemed appropriate score higher on pre-employment assessments of conscientiousness, professionalism, and experience when compared to applicants with email addresses deemed questionable or inappropriate (Blackhurst et al., 2011).

Various literature bases relevant to the employment domain provide clues regarding the expected consequences of violations of email address norms when applying for a job. As shown in Figure 2, interview recommendations are expected to be affected, due to the norm

violation's influence on perceptions of the applicant's social skills, competence, and global favorability.

### *Social Skills*

According to O\*NET (The Occupational Network Database), social skills, defined broadly as “developed capacities used to work with people to achieve goals” represent one of the six identified skill types that help to determine a candidate's fitness for a given occupation (O\*NET, n.d.). Green (2000) elaborates on this concept, stating that social skills are defined by the propensity to behave in a manner conducive to the organization's objectives. They represent individual behavior in relation to norms of contract compliance in the work situation (Green, 2000). Presumably, behavior that violates norms pertaining to status differentials and situational formality is not conducive to most organizations' objectives. Consequently, the violation of a standard email address norm is expected to adversely affect perceptions of an applicant's social skills.

**Hypothesis 1: Applicants with non-standard usernames will be perceived as having less effective social skills than applicants with standard usernames.**

### *Perceived Competence*

Competence is a broad term that indicates sufficiency (state of being “good enough”) of knowledge and skills that enable one to act effectively in a wide variety of situations (Le Diest & Winterton, 2005). The linguistic definition of competence is a speaker's internalized knowledge both of the grammatical rules of a language and of the rules for appropriate use in social contexts (Bagaric & Djigunovic, 2007). A violation of the rules for appropriate use in

social contexts, such as using a non-standard email username, represents a lack of linguistic competence, or knowing what to say to whom in what circumstances and how to say it (Hymes, 1972). Johnson and Lewis (2010) and Hamilton (1989) found that individuals who violated the expected norm of formality in the workplace by using profanity were perceived as incompetent by supervisors and coworkers. Applicants violating the norm of formality in the workplace as well as the employer-job applicant relationship by using a non-standard email username may be subject to similar perceptions. This is because the violation may be interpreted as a failure to communicate appropriately with others (peers, supervisors, subordinates, and clients), which is essential to effectiveness and competence in a wide variety work contexts. It may also be seen as disrespectful to the applicant-employer relationship and the conventional procedure for the job application process.

**Hypothesis 2: Applicants with non-standard usernames will be perceived as less competent than applicants with standard usernames.**

*Global Favorability*

Burgoon (1993) hypothesized that a norm violation often results in an emotionally intense reaction on the part of the individual perceiving the violation, which in turn colors the global evaluation of the violation and by extension the violator. In other words, general, global evaluations reflect the emotional intensity and reaction elicited by the unexpectedness of the norm violation's presence. Bettencourt, Dill, Greathouse, and Charlton (1997) found support for this hypothesis. Their results suggest that when a person's behavior violates a relevant category-based expectancy, the experience of unexpectedness for the perceiver

impacts the perceiver's global, affect-related evaluations. Also in support of this contention, Jackson, Sullivan, and Hodge (1993) found that their expectancy-violation manipulations affected only participants' "overall evaluations" of the target. This pattern of findings suggests that an expectancy violation might trigger a global affective reaction, which influences global evaluations of favorability or liking.

**Hypothesis 3: Applicants with non-standard email usernames will receive more negative global favorability ratings than applicants with standard usernames.**

*Interview Recommendation*

Traditionally, during the hiring process, candidates submit résumés and other application materials to employers, hiring managers, or Human Resources personnel who review the information in order to decide which applicants to recommend for an interview. This recommendation often represents the primary behavioral outcome of application screening. Interview recommendations are presumably influenced by the employer's perceptions about the candidate's social skills, competence, and global favorability. Because they are expected to affect such perceptions, non-standard email addresses should influence the probability that a candidate will advance to the interview stage of the selection process. Figure 2 depicts this model, whereby the effect of an email username on interview recommendations is mediated by perceptions of the candidate's social skills, competence, and global favorability. It should be noted that Figure 2 is not intended to be a comprehensive model of every factor that influences interview recommendations. However, it is intended to be a useful starting point depicting relationships among the key constructs



that are expected to be affected by the use of a non-standard email address when applying for a job.

**Hypotheses 4-6: The effects of a non-standard email username on interview recommendations will be mediated by perceptions of an applicant's social skills (H4), competence (H5), and global favorability (H6).**

By definition, a non-standard email username is one that deviates from the formulaic combination of the applicant's first and last name (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009). This definition is broad, allowing for much variability in what can be considered non-standard. For example, a non-standard email username could be meaningless, consisting of non-lexical characters such as a random string of numbers. In addition, when they have meaning, non-standard usernames may vary with regard to their valence. Valence, as used in the psychology of emotions and emotional responses, refers to the intrinsic [subjective] attractiveness (positive valence) or aversiveness (negative valence) of an event, object, or situation (Frijda, 1986).

It is quite possible that not all non-standard email usernames are created equal and that people reviewing application materials do not react to all of them the same way. Perhaps the effect of a non-standard email address depends on its valence. This possibility will be explored.

**Research Question 1: Do the effects of a non-standard email username depend on the username's valence?**

## Method

### **Participants**

Participants consisted of business professionals with managerial experience recruited through personal contacts of the lead author, Facebook, word of mouth, and Mechanical Turk, as described below. Participation was voluntary. Managerial experience was operationalized as follows: (a) at some point during the participant's professional career, having at least one person directly reporting to the participant for at least half (six months or more) of a calendar year for at least five years (the five years did not need to be consecutive), (b) being directly involved in the hiring process at some point in their professional career, or (c) being responsible for résumé screening at some point in their professional career.

Recruitment entailed distributing an invitation to participate in the study to eligible individuals in the lead author's personal and professional network. A recruitment posting was also placed on the lead author's Facebook page containing the same information as the recruitment email along with a link to the study's informed consent form. In addition, participants were encouraged (but not required) to invite friends, family, or colleagues who may be eligible and interested to participate. Participants were also recruited through Mechanical Turk (e.g., Grohol, 2011), an online marketplace which allows researchers to hire individuals for the purpose of completing studies. Participants recruited through Mechanical Turk were paid 20 cents for their participation in the study. To control for language and culture effects, recruitment and participation were restricted to individuals residing in the United States.

Participants recruited through personal contacts of the lead author were given the option of receiving a written summary of the results of this research in exchange for their participation.

### **Design and Procedure**

This study employed a between subjects design. The independent variable was email type, standard vs. non-standard. Within the non-standard email type, there were 3 levels, negative, neutral, and positive valence. Participants were randomly assigned to review an application that included one of the four email username types (standard, non-standard negative, non-standard neutral, or non-standard positive). The dependent variables were participants' evaluations of the applicant's social skills, competence, and global favorability, as well as participants' willingness to recommend the applicant for further screening (i.e., an interview).

All measures for this study were assessed via web-based surveys. Participants could complete the study from any computer that had internet access. They were sent a recruiting email or read the study description on Mechanical Turk explaining the purpose of the study, describing the minimum managerial experience criteria needed to participate, and indicating that their data would be kept anonymous. A link to the informed consent form was then provided.

After reading the informed consent form, individuals who decided to participate clicked on a link sending them to a web page where the task they were asked to complete was explained to them.

Participants were presented with a fictitious cover story intended to engage and invest them in the task at hand. In particular, they were told that due to the vast number of résumés made available by large job posting websites such as Careerbuilder.com and Monster.com, organizations are receiving more résumés than they can handle and are looking for ways to efficiently screen the large volume of résumés while at the same time keeping costs down. Participants were told that this study is part of a larger pilot study investigating the feasibility of outsourcing the task of résumé screening for entry level jobs to individuals outside of the hiring organization, such as college students or individuals with professional experience seeking to earn extra money. They were then told they would be presented with a job applicant's résumé and would be asked to evaluate the applicant.

Participants were given a set of written instructions explaining their role (see Appendix A). The instructions informed participants that they would be given a job description for a Customer Service Representative position. The instructions also explained that participants would receive the résumé of an applicant applying for the position and that their task was to evaluate how suitable that individual was for the position. They were asked to carefully examine the résumé, rate the applicant on the various evaluation criteria, and indicate whether this applicant should be invited to the company for an interview. After they had finished reading the instructions, participants were asked to check a box at the bottom of the page affirming that they had read and understood the instructions. Participants were then shown a résumé and asked to read it carefully, keeping in mind the position description.

After learning about the job applicant via his résumé, participants were asked to complete a questionnaire in which they rated the applicant's social skills, competence, and global favorability. They were also asked the degree to which they agreed the applicant should be invited to the company for an interview. Participants were able to scroll up to view the applicant's résumé again while completing the questionnaire. After completing this questionnaire, participants were asked to complete the final questionnaire. The final questionnaire included demographic questions and several procedural checks to make sure respondents were able to properly access and view the instructions and résumé materials along with a brief set of items assessing the extent to which the applicant's email address was in alignment with their expectations. After completing these questionnaires, participants were thanked for their participation and were given the opportunity to request a written summary of the results if they were interested in receiving them. Names and any other identifying information were not linked to the other data collected during the study.

## **Materials**

### *Email Username and Applicant Name*

All participants received the same job description and résumé which included information such as education, experience, and the job applicant's name. The only difference between the conditions was the applicant's email address listed at the top of the résumé along with other contact information (telephone number, street address). The applicant's name listed on the résumé was James Anderson. This name was chosen because it is a combination of the most common male first name in the U.S. (James) and the eleventh most common last

name in the U.S. (Anderson) ([www.namestatistics.com](http://www.namestatistics.com)). A non-ambiguously gendered name was chosen to hold the variable of applicant gender constant. As it is outside the scope of the current study to investigate the potential effects of domain names, all email addresses used in the study used the domain gmail.com to hold the email domain name constant.

#### *Standard Email Username Condition*

For this condition, the email address used on the fictitious résumé was [janderson@gmail.com](mailto:janderson@gmail.com) for fictitious applicant James Anderson. This email address employed the standard formula for email username creation by deriving the email username from the applicant's name (Fitzpatrick, 2010; Johnson, 2010; LeVanway, 2009).

#### *Non-Standard Email Username Conditions*

Participants randomly assigned to the non-standard email condition were also randomly assigned to one of three non-standard email conditions, positive, negative, and neutral. These email usernames were not derived from the applicant's name, thus meeting the definition of a non-standard email username. The non-standard email usernames employed in the study were: (positive condition) [greenadvisor@gmail.com](mailto:greenadvisor@gmail.com) and [smileyfacegen@gmail.com](mailto:smileyfacegen@gmail.com), (neutral condition) [Yellow\\_Jr@gmail.com](mailto:Yellow_Jr@gmail.com) and [mailings@gmail.com](mailto:mailings@gmail.com), and (negative condition) [megabeastzombie@gmail.com](mailto:megabeastzombie@gmail.com) and [lilwhitedevil@gmail.com](mailto:lilwhitedevil@gmail.com). These email usernames have been used by actual applicants in the field. They were obtained from [craigslist.com](http://craigslist.com), which allows job seekers to post their services online. The email addresses used in this study were selected based on a pilot study asking 255 participants to rate 49 non-standard email usernames used by job seekers on a five point Likert scale from -2 (strong negative reaction)

to +2 (strong positive reaction). The usernames eliciting relatively negative, positive, and neutral (0) valence ratings were chosen for use in this study. The usernames chosen for this study were rated as follows: greenadvisor ( $M=.55$ ,  $SD=.87$ ), smileyfacegen ( $M=.57$ ,  $SD=.99$ ), Yellow\_Jr ( $M=.004$ ,  $SD=.81$ ), mailings ( $M=.10$ ,  $SD=.97$ ), megabeastzombie ( $M=-.59$ ,  $SD=1.17$ ), and lilwhitedevil ( $M=-.65$ ,  $SD=1.11$ ).

### *Job Description and Résumé*

The instructions given to the participants described the primary duties of the available position of Customer Service Representative at a large retail store as, “To interact with customers with a focus on providing and processing information in response to inquiries, concerns, and requests about products and services. Successful incumbents possess integrity, are trustworthy, have composure, listening skills, interpersonal savvy, a drive for results, time management, functional and technical skills, are customer focused, and have the ability to develop peer relationships and boss relationships.”

The email username and applicant name were placed on a résumé created by Bertrand and Mullianathan (2003). Bertrand and Mullianathan (2003) obtained hundreds of résumés posted on the websites Careerbuilder.com and Americasjobbank.com by individuals seeking sales, administrative support, clerical services, or customer service positions. They analyzed each résumé’s information regarding education, affiliations, previous work, skills and qualifications, as well as references, and then classified it as either upper level management (high) or entry level (low). Each résumé was also purged of any identifying information about the applicant. From this analysis, Bertrand and Mullianathan (2003) chose the most

representative of each level (e.g., high and low). For the purposes of this study, one of the “low” level résumés was chosen to represent the fictitious job applicant. This created alignment between the résumé, the job description, and the study’s cover story, which indicated a focus on entry level jobs.

## **Measures**

### **Social skills.**

To measure participants’ perceptions of the applicant’s social skills, Rudman and Glick’s (1999, 2001) social skills index was administered ( $\alpha=.XX$ ). This measure uses the ratings of 10 characteristics (kind, supportive, warm, sincere, helpful, likable, friendly, popular, good listener, sensitive to others’ needs) to form a general *social skills* index. Past research using this has found alphas ranging from .88 to .92 (Rudman & Glick, 1999; 2001). Participants rated the extent to which characteristics matched their perceptions of the applicant on scales ranging from 1 (*not at all*) to 5 (*extremely*). Job-specific social skills were assessed with a single-item question from Tamanini (2005) which asked participant to rate the degree to which they felt “This individual possesses the necessary social skills needed to perform the necessary duties and responsibilities of the available position” on a five point Likert scale (*strongly disagree* to *strongly agree*). This item was analyzed separately from the general social skills index.

### **Perceived competence.**

Expectations of the applicant’s competence were assessed with seven items, three items obtained from Heilman and Okimoto (2008) and four items from Johnson and Lewis



(2010) ( $\alpha=XX$ ). The first three asked participants to “check the box corresponding to your evaluation of the applicant’s expected job performance if hired to the position.” Three separate five-point response scales were provided with the following anchors: not competent/competent, not productive/productive, and ineffective/effective. Higher scores reflected greater degrees of perceived competence. Past research using these items has found alphas ranging from .92-.95(Heilman & Okimoto, 2008; Thompson, Mullins, Robinson, & Halberstat, 2010). The final items assessing perceptions of applicant competence were measured by four questions adapted from Johnson and Lewis (2010) asking participants to use a 1 (*not at all*) to 5 (*extremely*) scale to rate the degree to which any of the information listed on the résumé “makes the applicant look incompetent,” “is embarrassing for the applicant,” “makes the applicant look dumb,” and “makes the applicant look bad.” Past research using these items has found alphas ranging from .84-.90 (Johnson & Lewis, 2010). Rating across all seven items were averaged ( $\alpha=XX$ ).

### **Global favorability.**

Participants were asked to indicate their beliefs and feelings about the applicant on three semantic differential scales created by Bettencourt et al. (1997). To measure global favorability, the following word pairs were used: not likeable/likeable, unfavorable/favorable, bad/good. Each item was rated on a five point scale and items were averaged to form an overall global favorability score ( $\alpha=##$ ). Past research using these items has found an alpha of .79 (Bettencourt et al. 1997).

### **Interview recommendation.**

Participants' recommendations concerning whether to invite the applicant to the company for an interview were assessed with four items created for use in this study. The first three items asked participants to use a five point Likert-type scale to rate the degree to which they agreed with statements such as, "The organization would be wasting its time interviewing this applicant." Rating scale anchors ranged from "*strongly disagree*" to "*strongly agree*." These three items were averaged to form an overall interview recommendation score. ( $\alpha=##$ ). The final item was dichotomous and asked participants to use a yes/no scale to indicate whether they recommend inviting the applicant for an interview. This item was analyzed separately from the previous three items.

### **Expectancy violation.**

A eight-item questionnaire created for use in this study assessed the degree to which the applicant's email address aligned with the participant's expectations for email addresses listed on résumés ( $\alpha=.XX$ ). A sample item is "The applicant's email address violates rules for expected and accepted behavior." Responses were provided using a 5-point Likert-type scale ranging from "*strongly disagree*" to "*strongly agree*," except the final item which ranged from "*never*" to "*very often*." Ratings were scored so that higher scores indicated greater expectancy violations. Ratings across all eight items were averaged to form a total score.

### **Proposed Analyses**

An *a priori* power analysis was conducted using G\*Power 3 (Faul, Lang, & Buchner, 2007). The results indicated that with a sample size of 180, analyses using an *F* statistic with

four conditions would have adequate statistical power at a value of 0.80 for  $\alpha = .05$  to detect a medium effect size of 0.25 (see Cohen, 1992).

Prior to testing the research hypotheses, all measured variables were checked for violations of normality assumptions. Skewness and kurtosis values were examined. Statistical corrections were applied if needed. Each analysis was conducted twice, once for the undergraduate and once for the managerial population. A correlation matrix is provided showing the relationships among the study's dependent variables (perceived social skills, perceived competence, perceived global favorability, and interview recommendation). Expectancy violation ratings were also included in this correlation matrix along with the dependent variables. Descriptive statistics (means, standard deviations) for the study dependent variables and the expectancy violation ratings were also computed and presented in a table which shows the values for each study condition.

To examine Hypotheses 1-3, a MANOVA was conducted to test whether mean differences among groups on the combination of dependent variables (perceived social skills, perceived competence, global favorability, and interview recommendation) were likely to occur by chance. If the MANOVA is significant and there are mean differences between the standard and non-standard email address groups, this would indicate the norm violation of including a non-standard email address on a résumé does impact selection-related perceptions. To further examine Hypotheses 1-3 and Research Question 1, the MANOVA was followed by a series of univariate ANOVAS with post-hoc Bonferroni corrections conducted with each dependent variable. This will allow the investigation of each dependent

variable (DV) individually to determine whether each DV is affected by each type of non-standard email address. A table summarizing the results for the MANOVAs and follow-up univariate ANOVAs will be provided.

To test Hypotheses 4-6, Structural Equation Modeling was used, using a 0 (standard email username) and 1 (non-standard email username) dummy code, where participants in the three non-standard email conditions were aggregated into one group. The model shown in Figure 2 proposes a particular causal flow from an exogenous variable (email username) through a set of endogenous intervening variables (perceived competence, social skills, and global favorability), to an outcome variable (interview recommendation).

If significant differences are found between the standard and non-standard groups, the model will be re-run to further investigate the hypothesized model using a continuous exogenous variable (instead of the dichotomous standard/non-standard variable.) In particular, the participants' ratings of the degree to which the applicant's email address violated their expectations will be included in lieu of the manipulated variable, and the model will be re-run to determine model fit.

Table 1  
*Example Non-Standard Email Addresses Found on Actual Résumés*

Non- Standard Email Addresses	Source Citation
CarpeDiemJane@email.com	LeVanway, 2009
RightSizeWronged@email.com	LeVanway, 2009
SoLegitIQuit@email.com	LeVanway, 2009
joeslovemuffin@email.com	Stute, 2011
hotchick@email.com	Stute, 2011
cutecountrydncr@email.com	Stute, 2011
duckfeet@email.com	Stute, 2011
religiousman@email.com	Stute, 2011
sxykitten@email.com	Stute, 2011
sexygirl@email.com	Hanson, 2010
iamasideshowfreak@email.com	Lau, 2011
virinmaiden@email.com	Lau, 2011
ballershotcaller@email.com	Lau, 2011
goatsflingingpoo@email.com	Amundson, 2008
eightballjunkie@email.com	Blackhurst et al., 2011
BlazinWeedClown@email.com	Blackhurst et al., 2011
Servent4christ@email.com	Blackhurst et al., 2011
ilovalamp@email.com	Blackhurst et al., 2011

*Note.* All email addresses above show real existing email usernames reported to have been used on real résumés. However, the domain names have all been changed to “@email.com” to protect the anonymity of the individuals with these email addresses.

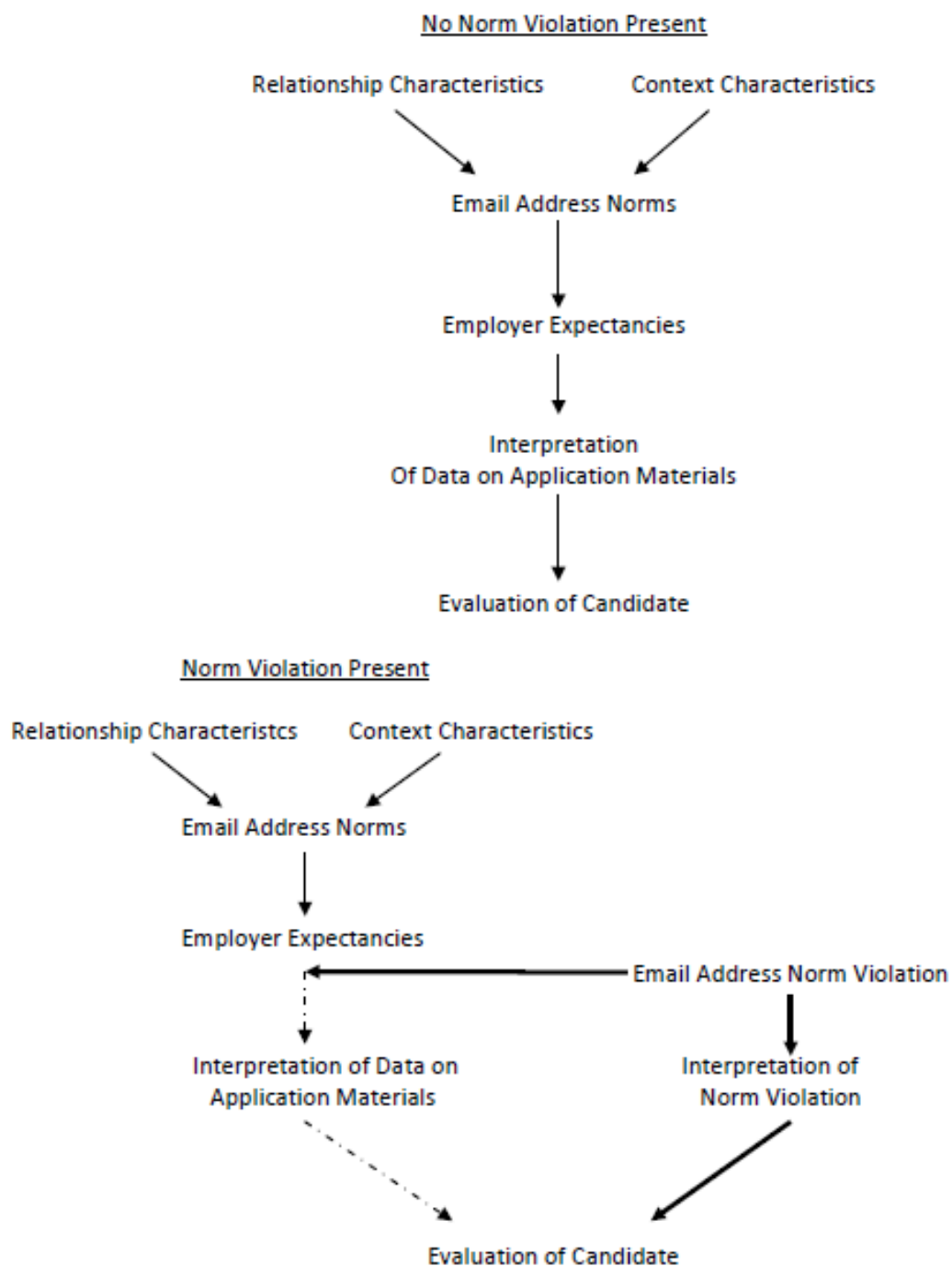
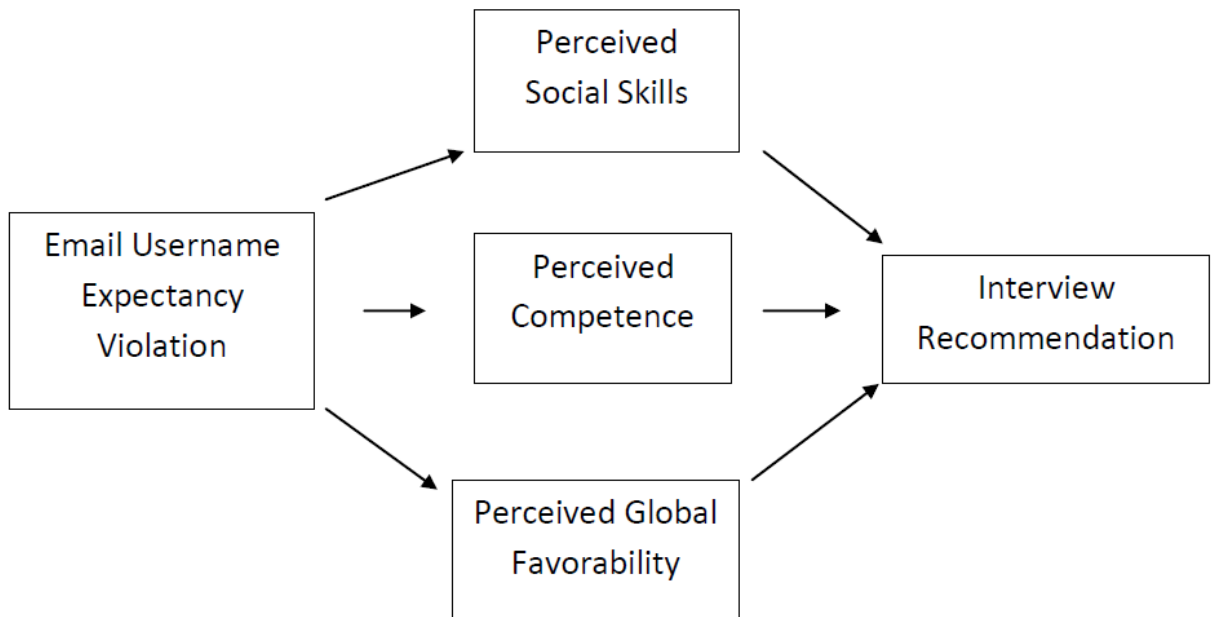


Figure 1a. Email Address Norm Violation Model



*Figure 2a.* Proposed model suggesting a particular causal flow from an exogenous variable (email username) through a set of endogenous intervening variables (perceived competence, social skills, and global favorability), to an outcome variable (interview recommendation).

### Appendix A-1 Participant Instructions

This study is part of a larger pilot study investigating the feasibility of outsourcing the task of résumé screening for entry -level jobs to individuals outside of the hiring organization, such as college students or other individuals with managerial experience seeking to earn extra money. Due to the vast number of résumés made available by large job posting websites such as Careerbuilder.com and Monster.com, organizations are receiving more résumés than they can handle and are looking for ways to efficiently screen the large volume of résumés while at the same time keeping costs down.

Your task is to imagine that you are a Human Resources Manager at a large electronics retailer charged with the task of examining and evaluating a résumé that the company has received in response to a Monster.com posting for an available Customer Service Representative position. It is important that you carefully read and evaluate the quality of the résumé to help determine the feasibility of outsourcing résumé screening to individuals with managerial experience looking to earn extra money in their spare time.

Your duties include the following:

- Aid in the process of screening applicants responding to the Monster.com post by:
  - Examining a résumé sent via email for a currently available position
  - Rating the résumé on various selection criteria
  - Deciding if you recommend inviting the applicant for an interview

The currently available position is described as follows:

**Job Title:** Customer Service Representative.

**Primary Duties:** To interact with customers with a focus on providing and processing information in response to inquiries, concerns, and requests about products and services. Successful incumbents possess integrity, are trustworthy, have composure, listening skills, interpersonal savvy, a drive for results, time management, functional and technical skills, are customer focused, and have the ability to develop peer relationships and boss relationships.

\*Note: In this study, you are not actually giving this person the job; you are only recommending or not recommending them for an interview, which may or may not lead to getting the job. You are, however, an integral part of the selection process. You must use your discretion in determining if this individual will be invited for an interview. It is important to keep in mind that due to the sheer volume of résumés received there is no way everyone can be interviewed. The company needs you to help determine which applicants should move forward in the selection process.



Appendix A-2  
 Résumé Used in Study  
**James Anderson**  
 9250 N. Waverly Dr.  
 Chicago, IL 60645  
 (773) 387-4556  
 XXXXXXXXXX@gmail.com

---

**OBJECTIVE :** To obtain a position that will allow me to demonstrate my ability to be an organized and hard working employee.

**EXPERIENCE:**

*01/09-Present* **Teller**

Associated Bank of Chicago- Chicago, IL

- Multiple teller transactions
- Took care of customers' daily transactions
- Cashed checks
- Balanced ATM and Night Deposits
- Promoted our current specials

*6/06-11/08*

**Cage Cashier/Banker**

Paradise Hotel & Casino- Peoria, IL

- Maintained a balance drawer of 75,000 dollars
- Cashed out customers who finished playing table games or slot machine games
- Transported money to and from the vault
- Cashed customer checks
- Banked up to \$150,000.00

*10/05-02/06*

**Cashier**

Hardee's- Peoria, IL

- Run the drive-thru window and front line register.
- Took orders and make sure my drawer balanced.
- Cleaned up my work station at the end of the day.

*9/04-10/05*

**Cashier/Supervisor**

Kenny Rogers Roasters- Peoria, IL

- Ran the cash register and took orders.
- At the end of my shift, counted down my drawer and made sure it was balanced.
- Closed down the store and made sure everything was set for the next day.

**SKILLS AND ABILITIES**

- Basic computer skills.
- Fluent German.
- Good people interaction skills.

## Appendix A-3

## Study Measures

**Directions:** You are being asked to rate this applicant on the various evaluation criteria listed below and then determine if you would recommend that we email this applicant an invitation to come to the company for an interview. Please fill in the applicant's name and email at the top of the form and then answer ALL of the questions below by checking the most appropriate box for each question.

Position #6427: Customer Service Representative

Name of Applicant: \_\_\_\_\_

Email Address of Applicant: \_\_\_\_\_

Please rate the extent to which following characteristics match your perceptions of the applicant on a scale ranging from "Not at all" to "Extremely."

I perceive this applicant to be:

Not at All

Extremely

1. Kind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Supportive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Warm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Sincere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Likeable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Popular	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Good Listener	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Sensitive to others' needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Please rate the degree to which you agree that “This individual possesses the necessary social skills needed to perform the necessary duties and responsibilities of the available position.”

Strongly Disagree

Strongly Agree

Please check the box corresponding to your evaluation of the applicant's expected job performance if hired to the position.

12. NOT Competent

Competent

13. NOT Productive

Productive

14. Ineffective

Effective

Please rate the degree to which any of the information listed on the résumé:



23. Unfavorable      Favorable

24. Bad      Good

Please indicate if you would recommend extending this applicant an invitation for an interview with the company for the position.

25. I recommend this applicant for an interview.

Strongly Disagree      Strongly Agree

26. The organization would be wasting its time interviewing this applicant.\*

Strongly Disagree      Strongly Agree

27. Based on this résumé, this applicant deserves an interview.

Strongly Disagree      Strongly Agree

28. I recommend inviting this applicant for an interview.

Yes  No

Demographic and Other Information

Please provide some background information about yourself.

29. Age: \_\_\_\_\_

30. Gender: M  F

31. Ethnicity:  Caucasian  Hispanic  African-American  Asian  Other

32. What is the highest level of education you have completed?

High School  Some College  Bachelors  Masters  Ph.D/M.D./J.D.

33. At some point during your professional career, have you had at least one person directly reporting to you for at least half (six months or more) of a calendar year for at least five years? (The five years do not need to be consecutive) Yes No

34. At some point during your professional career, have you been directly involved in the hiring process?  Yes  No

35. How many (approximately) hirings have you been directly involved in?  
1-10  11-20  20+  N/A

36. At some point during your professional career, have you been responsible for screening résumés as part of the hiring process? Yes  No

37. How many (approximately) résumés have you been responsible for screening?  
1-10  11-20  20+  N/A

38. Were you able to access and view the instructions and résumé materials? Yes  No   
Please rate the degree to which you agree with each statement by selecting the appropriate box:

39. The applicant's email address was more informal than is usually expected.

Strongly Disagree     Strongly Agree

40. The applicant's email address violates rules for expected and accepted behavior.

Strongly Disagree     Strongly Agree

41. The applicant's email address would probably take some employers by surprise.

Strongly Disagree     Strongly Agree

42. The applicant's email address is consistent with norms for professional communication.\*

43. The applicant's email address was unexpected.

Strongly Disagree  Strongly Agree

44. The applicant's email address was unusual to see on a résumé.

Strongly Disagree  Strongly Agree

45. The applicant's email address was what I expected to see on a résumé.\*

Strongly Disagree  Strongly Agree

46. How often have you seen inappropriate email addresses used in professional communications?

Never  Very Often

This scale consists of words that describe different feelings and emotions. Read each item and then mark the appropriate answer. Indicate to what extent you feel this way right now, that is, at the present moment. Please use the following scale:

- | 1                              | 2        | 3          | 4           | 5         |
|--------------------------------|----------|------------|-------------|-----------|
| Very Slightly<br>or Not at all | A little | Moderately | Quite a Bit | Extremely |
| 47. interested                 |          |            |             |           |
| 48. distressed                 |          |            |             |           |
| 49. excited                    |          |            |             |           |
| 50. upset                      |          |            |             |           |
| 51. strong                     |          |            |             |           |
| 52. guilty                     |          |            |             |           |
| 53. scared                     |          |            |             |           |
| 54. hostile                    |          |            |             |           |
| 55. enthusiastic               |          |            |             |           |
| 56. proud                      |          |            |             |           |
| 57. irritable                  |          |            |             |           |
| 58. alert                      |          |            |             |           |
| 59. ashamed                    |          |            |             |           |
| 60. inspired                   |          |            |             |           |

- 61. nervous
- 62. determined
- 63. attentive
- 64. jittery
- 65. active
- 66. afraid

On the following scales, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes *you*. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale by clicking on it.

**Response Options:**

- 1:** Very Inaccurate
- 2:** Moderately Inaccurate
- 3:** Neither Inaccurate nor Accurate
- 4:** Moderately Accurate
- 5:** Very Accurate

- 67. I am interested in other people.
- 68. I sympathize with others' feelings.
- 69. I have a soft heart.
- 70. I take time out for others.
- 71. I feel others' emotions.
- 72. I make people feel at ease.
- 73. I am not really interested in others.\*
- 74. I insult people.\*
- 75. I am not interested in other people's problems.\*
- 76. I feel little concern for others.\*

Thanks for your participation!

\* reverse scored item(s)