

Short Communication: Powerless and Jobless?

Comparing the Effects of Powerless Speech and Speech Disorders on an Applicant's Employability

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Abstract- The present study examines the impact of a speech disorder (a lateral lisp) and powerless speech on an applicant's hireability. College students ($N = 113$) reviewed an applicant's resume, as well as a description of two occupations/job openings that varied in regard to necessitating speech. Participants listened to one of three interviews (speech disorder vs. powerless speech vs. control), indicated their willingness to hire the applicant, and then completed hireability and employability scales for both positions, as well as an impressions ratings form. Contrary to the hypotheses, few differences between the "employers" responses to the control and speech disorder applicants were found. The speech disorder applicant was discriminated against only when the job required speech. Powerless speech negatively affected the participants' impressions. Compared to the other applicants, the powerless speech applicant was perceived to be the least hireable and was perceived least favorably on the majority of the impression ratings.

Keywords- *Discrimination; Speech Disorders; Powerless Speech Impression Formation; Attribution*

I. INTRODUCTION

Interviewing for a job can be a stressful experience, especially for those who have less than optimal speech patterns. For 6 to 8 million Americans, the source of this stress could be their language impairment^[1], while for others, the cause may be their use of powerless speech, which is a speech style that utilizes hesitations ("uh" and "well") and hedges ("sort of" and "I think")^[2]. Past research suggests that the stress generated by one's speech can negatively impact and alter impression formation during interviews^[3, 4, 5, 6, 7, 8]. Although research has established that both people with speech disorders and those exhibiting powerless speech are discriminated against^[9, 10], no research was found comparing the two speech patterns. This study examines if speech disorders and powerless speech affect an applicant's employability.

People with speech disorders experience discrimination in many facets of life^[11, 12]. For example, people with speech disorders are judged more negatively and perceived to be less intelligible than people without these disorders^[13, 14, 15]. This discrimination can evoke an immediate fear of being judged and generate insecurity when speaking^[10, 16], in turn, leading to an increased prominence of the disorder^[17]. Additionally, speech disorders, such as lateral lisps, a speech disorder in which air escapes over the side of the

tongue when producing the /s/ and /z/ sounds, cause "adverse attention to the speaker", resulting in a distraction from the actual content of the individual's speech^[18]. The combination of distracting attention and preconceived negative judgments suggest that a person with a speech disorder, specifically a lateral lisp might encounter difficulties and discrimination during a job interview.

Speech disorders are not the only form of speech that results in negative perceptions. People exhibiting powerless speech are perceived to have less control of themselves and others, are less intelligible^[19], less assertive^[20], and less professional than people who do not use this style of speech^[21]. Additionally, job applicants who utilize powerless speech are discriminated against in an interview setting. Parton, Siltanen, Hosman, and Langenderfer^[2] found that applicants using powerless speech are perceived more negatively and are less employable than applicants who do not utilize this speech pattern.

Because most employment positions require some form of interview, one's speech during this interview may be imperative to the applicant's hireability^[3, 4, 5, 6, 8, 22]. Although cases of discrimination during the hiring process have been reported by applicants with speech disorders^[23], and past research has indicated both people with speech disorders/lisps and those exhibiting powerless speech are discriminated against in other domains^[2, 9], to date, researchers have failed to utilize true experiments to determine if a speech disorder (e.g., a lateral lisp) impacts an applicant's employability. The current study addressed this question and assessed the relative discrimination in one's employability based on speech (laterallisp vs. powerless vs. control) while considering the requirements of the job. Due to negative perceptions of people with powerless speech and speech disorders, the following hypotheses have been developed:

Hypothesis 1: The applicant with no disorder will be more favorably evaluated and will be more likely to be hired than the applicants with powerless speech or a speech disorder.

Hypothesis 2: The applicant with a speech disorder will be evaluated less favorably and will be less likely to be hired than the applicant who exhibits powerless speech.

Attribution theory, specifically in regard to judgments of the controllability of one's behavior, provides a theoretical basis that both supports and refutes Hypothesis 2. On one

hand, research demonstrates that people are more sympathetic and less discriminatory towards individuals who are presumed to have less control of their behavior^[24] and thus the applicant with the speech disorder assumed to be uncontrollable might be perceived more favorably than the applicant who exhibits powerless speech. Conversely, a perceived lack of control might suggest an inability to improve one's speech. If improvement is deemed impossible for the applicant with the speech disorder, a participant charged with hiring the best employee may in turn favor the powerless speech applicant because of the greater potential for improvement.

Hypothesis 3: The discrimination directed at the applicant with a speech disorder will be greater when the job requires speech compared to a job where speech is unimportant.

II. METHODS

A. Participants

The participants were 113 undergraduate students (39 males and 74 females) whose average age was 20.57 years ($SD = 5.83$). Respondents identified as being Caucasian ($n = 102$), African American ($n = 5$), Hispanic ($n = 4$), Asian ($n = 2$), Native American ($n = 1$), and of an "other" ethnicity ($n = 1$). Participants were told the purpose of the study was to examine first impressions of job applicants and received research credit.

B. Procedure

After obtaining informed consent, participants were reminded that the purpose of the study was to analyze first impressions of job applicants. Participants reviewed a job posting obtained from Monster.com^[25] that described the two jobs the applicant was applying for, an entry-level data collection position and a data entry position at a marketing firm. The posting briefly described the company's expectations for each position, disclosing that the data collection position would require "adequate verbal skills", while the data entry position would not require these skills. Additionally, participants reviewed the applicant's resume. The resume depicted the applicant to be a recent college graduate searching for an entry-level position. To standardize the applicant's qualifications, the resume was consistent across conditions.

After reading the job posting and resume, participants listened to an audio recording of one of three mock interviews; where the applicant spoke with a lateral lisp (speech disorder condition), used words such as "like", "kind of", and "uh" (powerless speech condition), or spoke with no speech disorder (control). The interview script was adopted from Parton, Siltanen, Hosman, and Langenderfer's study^[2], with slight modifications to make it applicable to the two entry-level positions. To ensure standardization, the same script was used for each interview and the interview was conducted consistently across each recording. The only

difference between the recordings was the manner in which the applicant spoke.

Upon completion of the interview, participants completed the hireability scale and employability scale in regards to both jobs, as well as the first impression measure. Participants were then debriefed and thanked for their time.

C. Dependent Variables

Participants indicated their willingness to hire the applicant by circling yes or no to the questions "Would you hire the applicant for the Data Collection position?" and "Would you hire the applicant for the Data Entry position?"

To measure the applicant's hireability, Parton, Siltanen, Hosman, and Langenderfer's^[2] hireability scale was used. The three item scale measured the extent to which participants felt the applicant should be hired for the position, the level of confidence in their decision, and the extent to which they would recommend the applicant for the job. Responses to all items were recorded on a 9-point Likert scale, with higher scores indicating a more hireable applicant. Participants completed all three items for both the data collection and the data entry positions. Responses were then summed to obtain a total data collection hireability score (Cronbach's $\alpha = .96$) and a total data entry hireability score (Cronbach's $\alpha = .93$).

The Cleveland, Festa, and Montgomery^[26] employability scale was included to assess the applicant's perceived employability. The four item scale measures the applicant's perceived employability, advancement potential, qualifications, and potential success level. Responses were recorded on a 9-point Likert scale with higher scores indicating a more employable applicant. Participants completed all four items for both the data collection and the data entry positions. Responses were then summed to obtain a total data collection employability score (Cronbach's $\alpha = .90$) and a total data entry employability score (Cronbach's $\alpha = .83$).

To measure participants' first impressions of the applicant, the Allard and Williams'^[9] ratings form was used. Participants assessed the applicant on nine personality characteristics including intelligence, reliability, employability, self-esteem level, emotional stability level, decisiveness, social adjustment, stress level, and ambitiousness. Responses were recorded on a 7-point Likert scale, with higher scores indicating a higher prevalence of the characteristic.

III. RESULTS

A. Statistical Overview

Discrimination can be operationalized in two ways. A between subjects analysis could reveal evidence that the applicant with the speech disorder was hired less and rated less favorably than the control and/or the powerless speech applicants. Additionally, a within subjects analysis could reveal if an applicant with a speech disorder was hired less

frequently for the data collection position in comparison to the data entry position.

B. Decision to Hire

A 3 (speech condition: speech disorder or powerless speech or control) x 2 (decision to hire: yes or no) chi-square contingency test was used to determine if in comparison to the powerless speech and speech disorder applicants, participants would be more willing to hire the control applicant for the position that required speech (data collection). The speech condition significantly affected the willingness to hire, $X^2(2, N = 113) = 36.56, p < .001$. Post hoc tests indicated that a significantly greater proportion of participants reported being willing to hire the control applicant (92.5%) compared to the speech disorder applicant (68.4%), $X^2(1, N = 78) = 7.27, p < .01$, and the powerless speech applicant (25.7%), $X^2(1, N = 75) = 35.11, p < .001$.

Additionally, a significantly greater proportion of participants reported being willing to hire the speech disorder applicant in comparison to the powerless speech applicant, $X^2(1, N = 73) = 13.31, p < .001$.

A similar 3 x 2 chi-square contingency test was used to determine if the applicant's speech affected the participants' willingness to hire for the position that required no speech. The speech condition did affect the willingness to hire, $X^2(2, N = 113) = 7.92, p < .05$. Post hoc tests indicated that there was no significant difference between the proportions of participants reported being willing to hire the control applicant (72.5%) and the speech disorder applicant (73.7%). Additionally, a significantly smaller proportion of participants reported being willing to hire the powerless speech applicant (45.7%) in comparison to the control applicant, $X^2(1, N = 75) = 5.58, p < .05$, and the speech disorder applicant, $X^2(1, N = 73) = 5.95, p < .05$.

Finally, to determine if the powerless speech applicant and the applicant with the speech disorder were discriminated in regards to job type, two chi-square tests were used to compare the proportion of participants who would be willing to hire the applicant for the data collection (speech required) to the proportion of participants willing to hire the applicant for data entry (little to no speech required). While the proportion of participants who would be willing to hire the applicant with the speech disorder did not differ based on position, a significantly smaller proportion of participants were willing to hire the powerless speech applicant for the data collection position than the data entry position, $X^2(1, N = 35) = 5.63, p < .05$.

C. Hireability and Employability

To determine whether the applicant's speech and type of job impacted the applicant's hireability and employability, a 3 (speech condition: speech disorder or powerless speech or control) x 2 (job type: data collection or data entry) mixed-between subjects MANOVA was conducted. The dependent variables were the total scores of the hireability and the employability scales. The mean and standard deviation of each outcome variable are presented in Table 1. Results of the MANOVA indicated a significant between-subjects main effect for speech, Wilks' $\Lambda = .72, F(4, 216) = 9.80, p$

$< .001$, multivariate $\eta^2 = .15$, a non-significant within-subjects main effect for job type, and a significant Speech x Job type interaction effect, Wilks' $\Lambda = .86, F(4, 216) = 4.18, p < .01$, multivariate $\eta^2 = .07$.

TABLE 1 | IMPACT OF SPEECH ON THE APPLICANT'S HIREABILITY

	No Disorder	Speech Disorder	Powerless Speech
Data Collection Hireability	22.18(5.34) _A	17.24(6.97) _B	12.26(6.11) _C
Data Entry Hireability	17.57(5.53)	17.79(5.85)	14.69(6.37)
Data Collection Employability	27.59(6.97) _A	25.71(6.02) _A	18.97(6.68) _B
Data Entry Employability	25.56(6.41) _A	25.61(5.46) _A	19.63(6.76) _B

Note. Values with different subscripts indicate a statistically significant difference.

The main effect of speech was analyzed using one-way ANOVAs and post hoc t-tests for each of the dependent variables. Only significant tests have inferential statistics reported. A significant main effect of speech was found for data collection hireability ($F(2, 109) = 23.86, p < .001$, partial $\eta^2 = .31$), data collection employability ($F(2, 110) = 15.28, p < .001$, partial $\eta^2 = .22$), and data entry employability ($F(2, 110) = 9.93, p < .001$, partial $\eta^2 = .15$). In all cases, the powerless speech applicant was significantly less hireable and employable than the control and speech disorder applicant. The only difference between the control and the speech disorder applicant pertained to data collection hireability, with the control being perceived to be significantly more hireable for the data collection position than the speech disorder applicant. In regard to data entry hireability, no differences were found.

The significant Speech x Job type interaction was analyzed using 3 x 2 mixed ANOVAs for each dependent variable. Only significant tests have inferential statistics reported. Significant interactions were observed between speech and job type for both the hireability ($F(1, 72) = 19.71, p < .001$, partial $\eta^2 = .22$), and the employability scales, ($F(1, 73) = 8.23, p < .01$, partial $\eta^2 = .10$). Post hoc within subject t-tests were used to test the hypotheses that the speech disorder applicant and the powerless speech applicant would be rated as being significantly more hireable and employable for the data entry position than the data collection position. Contrary to the hypothesis, the speech disorder applicant's hire-ability and employability was unaffected by the job type, while the powerless applicant was significantly less hireable for the data collection position than the data entry position, $t(34) = 2.28, p < .05$, but did not differ in regards to employability.

D. First Impressions – Personality Characteristics

To determine whether the applicant's speech affected perceptions of the applicant, a between-subjects MANOVA was conducted on the nine items that make up Allard and Williams' ^[9] first impression measure. The mean and standard deviation of each outcome variable for each condition are presented in Table 2. Results of the MANOVA indicated a significant between-subjects main effect for speech, Wilks' $\Lambda = .54, F(18, 202) = 4.02, p < .001$, multivariate $\eta^2 = .2$

TABLE II IMPACT OF SPEECH ON THE APPLICANT'S HIREABILITY

	Control	Speech Disorder	Powerless Speech	F	p value	Partial Eta Squared
Decisive	5.75(1.17) _A	5.51(1.37) _A	3.80(1.89) _B	18.49	< .001	.25
Reliable	5.63(0.95) _A	5.49(1.10) _A	4.11(1.45) _B	18.35	< .001	.25
Employability	6.05(0.85) _A	5.59(1.45) _A	4.57(1.22) _B	14.98	< .001	.22
Ambitious	6.45(0.75) _A	6.11(1.28) _A	4.89(1.68) _B	15.39	< .001	.22
Intelligence	5.50(0.85) _A	5.30(1.22) _A	4.29(1.30) _B	12.09	< .001	.18
Stable	4.93(1.86) _A	4.30(1.93) _{AB}	3.54(1.58) _B	5.50	< .01	.09
Stress	4.05(1.69) _A	4.08(1.42) _A	5.06(1.80) _B	4.39	< .05	.07
Self Esteem	6.18(0.81) _A	5.86(1.21) _{AB}	5.49(1.38) _B	3.39	< .05	.06
Adjustment	5.63(1.08)	5.19(1.31)	4.97(1.34)	2.72	= .07	.05

Note. Values with different subscripts indicate a statistically significant difference

The main effect of speech was analyzed using one-way ANOVAs and post hoc t-tests for each of the dependent variables (see Table 2 for ANOVA results). In regard to all impression items, the impressions of the control applicant and the speech disorder applicant did not differ. Conversely, the control applicant and the speech disorder applicant were perceived to be significantly more intelligent, decisive, reliable, employable, ambitious, and less stressed than the powerless speech applicant. The control applicant was perceived to be more stable and have higher self-esteem than the powerless speech applicant who did not differ significantly from the speech disorder applicant on those two characteristics. Finally, applicants did not differ in regard to one's ability to adjust.

IV. CONCLUSIONS

Research has indicated that vocal cues can illicit negative impressions of a job applicant^[3, 6]. Although researchers have been able to produce these effects when an applicant uses powerless speech^[2], researchers have failed to examine discrimination towards applicants with speech disorders. In this study, the applicant's speech affected the participants' responses. Although the speech disorder applicant experienced some discrimination when applying for the data collection position (the job requiring speech), this applicant was not discriminated against relative to the applicant exhibiting powerless speech. The powerless speech applicant was perceived least favorably and was the least hireable, regardless of job.

Attribution theory may explain why the powerless speech garnered a more negative response than an applicant with a speech disorder. Weiner^[24] argues that when deciding how to respond to an individual, people judge the controllability of one's behavior. Weiner's research demonstrated that people are more sympathetic and less discriminatory towards individuals who are presumed to have less control of their behavior. If speech disorder are perceived to be relative uncontrollable (compared to powerless speech), it is possible participants discriminated against the powerless speech

applicant and were sympathetic and tempered the discrimination directed at the speech disorder applicant.

Although the speech disorder applicant was perceived more positively than was hypothesized, and was primarily perceived to be similar to the control, discrimination did occur when the job required speech. Specifically, the speech disorder applicant was significantly less hireable than the control applicant for the data collection position. These results suggest that participants do not harbor a general prejudice towards individuals with speech disorders which is inconsistent with past research^[16]. Instead, observers seem to compartmentalize the challenges of speech disorders to tasks that require speech (e.g., a speech disorder does not equate to being a poor employee unless the job requires speech). The results are less encouraging for powerless speech applicants. The negative effects of powerless speech generalized to ratings of the applicant's character and affected the applicant's hireability, even when the job did not require speech.

The results of the present study suggest job applicants should pay particular attention to their speech in an interview setting. Additionally, employers should be aware of their tendencies to overgeneralize the effects of the applicant's speech and attempt to prevent this bias. If powerless speech activates employers' prejudices, they may reject a qualified applicant, extending the job selection process, and creating unnecessary expenditures.

Additionally, the present study may provide guidance in regards to expanding speech therapy efforts which seemed to be primarily focused on children with speech disorders. Considering the negative consequences associated with powerless speech, it may be wise for schools to provide additional aid for students who have been socialized to use powerless speech.

Although the use of actors enabled standardization, the actor was speaking with an artificial lisp and artificial powerless speech which may be a limitation. Another potential limitation is the sample consisted solely of undergraduate students. It is possible that trained Human

Resource professionals may be aware of potential biases and be more capable of minimizing their influence.

In the present study, participants discriminated against the powerless speech applicant regardless of the job, while the speech disorder applicant was less hireable only when the job demanded speech. These results suggest one's speech can be a critical component of the hiring process. Future research should help to establish the impact of speech in comparison to other characteristics that illicit bias in an interview setting (e.g., weight, race), in order to determine how powerful the negative effects of powerless speech are.

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