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# Linguistic Accent, Depression, and Anxiety: Concern with Linguistic Accent Predicted Psychological Maladjustment Better than Traditionally Accepted Acculturation Variables

**KONSTANTIN TSKHAY & ANGELA-MINHTU D. NGUYEN**
University of California, Riverside

Language proficiency is a predictor of acculturative stress (Berry & Kim, 1988), which is related to mental health (Constantine, Okazaki, & Utsey, 2004); however, there is limited research on linguistic accent, a construct relevant to language proficiency. In the present study, the relationship between linguistic accent and psychological maladjustment was examined. The study was conducted using two samples (i.e., Vietnamese Americans and Mexican Americans) recruited from the psychology department subject pool at the University of California, Riverside. Participants reported their level of concern with an accent and completed a measure of depression and anxiety symptomatology. Increased concern with an accent significantly relates to increased levels of psychological maladjustment. Concern with an accent is a better predictor of maladjustment than traditionally accepted acculturation variables. Because linguistic accent and psychological maladjustment are related, linguistic accent is an important topic to study and deserves greater attention in both research and practice.

*Keywords*: acculturation, acculturative stress, linguistic accent, depression, anxiety

Les compétences langagières prédisent le stress d'acculturation (Berry & Kim, 1988), et ce dernier est relié à la santé mentale (Constantine, Okazaki, & Utsey, 2004). Toutefois, peu de recherches existent sur l'accent linguistique, un concept fondamental des compétences langagières. Dans la présente étude, la relation entre l'accent linguistique et l'inadaptation psychologique a été étudiée. Ainsi, deux échantillons (des Américains d'origine vietnamienne et des Américains d'origine mexicaine) ont été recrutés à partir du bassin de participants du département de psychologie de l'Université de Californie, Riverside. Les participants devaient rapporter leur niveau de préoccupation relatif à un accent linguistique et compléter un questionnaire mesurant les symptômes de dépression et d'anxiété. Les résultats indiquent qu'un niveau élevé de préoccupations quant à l'accent était significativement relié à des niveaux élevés d'inadaptation psychologique. Ces préoccupations prédisent mieux l'inadaptation que les variables d'acculturation traditionnellement évaluées. Puisque l'accent linguistique et l'inadaptation psychologique sont reliés, l'accent linguistique constitue un sujet de recherche important qui mérite davantage de considérations, tant aux plans de la recherche que de la pratique clinique.

*Mots-clés :* acculturation, stress d'acculturation, accent linguistique, dépression, anxiété

The United States is an increasingly multicultural society due to its ideals and practices. One major motivation for immigration to the United States is the labor market: People from various parts of the world travel in search of financial prosperity and stability (Quinn & Petrick, 1993). Currently, ethnic minorities represent one-third of the United States population and the numbers are expected to increase by mid-century (U.S. Census Bureau, 2008). In 2009, the U.S. Census Bureau found that foreign-born individuals made up 12.5% of the total population, compared to 11.7% in 2003 and 4.7% in 1970 (U.S. Census Bureau, 2010a). Furthermore, 15.6% (23.9 million people) of the total labor force registered in the United States is foreign-born (U.S. Census Bureau, 2009). Because of the influx of international workers into the United States, focus on English language proficiency and nonnative

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linguistic accents has become more vital than ever before (Quinn & Petrick, 1993). English language proficiency and linguistic accents not only affect immigrants, but also US citizens who grew up in households where English was not the primary language of communication (approximately 19% of all households; U.S. Census Bureau, 2010b). In this study, concern with linguistic accent is investigated as a predictor of non-clinical psychological maladjustment within an acculturation theoretical framework.

Berry (2003) defines acculturation as the process of becoming a part of (i.e., moving to, integrating into) the new and unfamiliar culture that differs from the culture of origin. Cultural orientation, one of the main concepts of the acculturation framework is defined by two dimensions: 1) the degree to which an individual is motivated and allowed to identify with and be a part of the mainstream culture (i.e., dominant cultural orientation), and 2) the degree to which an individual is motivated and allowed to identify with and be a part of the ethnic culture to which he or she belongs (ethnic cultural orientation; Nguyen & Benet-Martínez, 2007). The bidirectional model provides an understanding of the acculturation that an individual experiences when he or she is exposed to two or more cultures (Nguyen & Benet-Martínez, 2007). Acculturation has many indicators, such as social affiliation, communication style, cultural identity, cultural pride, knowledge, beliefs, values, and language proficiency or language fluency (Zane & Mak, 2003) Acculturative stress may result in the process of acculturation in any of the indicators (Berry, 1997).

Berry (1997), explains that acculturative stress constitutes the conflict between the culture of origin and the host culture of an individual. Berry (1997) discusses acculturative stress as the product of intercultural comparison and contact (e.g., interaction between two or more cultures). For example, a French person immigrating to the United States may be challenged to understand and accept traditional political values that Americans hold, and thereby may feel distressed. Acculturative stress may be linked to psychological maladjustment (e.g., depression, anxiety; Berry, 1997). Berry (2003) explicitly defines acculturative stress as being manifested by "uncertainty, anxiety, and depression". Berry and Kim (1988) name language proficiency, one of the indicators of acculturation, as a predictor of the level of acculturative stress and psychological maladjustment. Language proficiency is therefore important in understanding acculturation and acculturative stress (Berry, 1997).

Language proficiency is an indicator of acculturation (Berry, 1997). It is one of the major determinants of communication and cultural exchange. Ying (1996) found that immigrants perceiving themselves to be insufficiently proficient in the language of the host country tend to have lower self-esteem, diminished satisfaction with life, and higher stress levels. Liebkind and Jasinskaja-Lahti (2000) found that higher language proficiency relates to increased self-esteem and a better sense of mastery. Lin and Yi (1997) suggested that low language proficiency creates problems in the workplace and academic settings. International students who were more confident using the English language experienced considerably less stress than those who were less confident about their use of English (Yeh & Inose, 2003). These examples show that language proficiency is important not only as an indicator of acculturation, but also because of the effects it has on affect and mental health.

People proficient in the dominant language may still encounter problems due to misunderstandings caused by a linguistic accent, or a specific manner of pronunciation (Goto, Gee, & Takeuchi, 2002). An accent may cause the speaker to develop insecurities, which may affect his or her psychological adjustment (Ying, 1996). Gluszek and Dovidio (2010) have previously shown that linguistic accents are associated with stigma and stereotypes, which suggests that people may perceive an accent they might have as a cause of concern. Moreover, concern with linguistic accent may be an indicator of acculturative stress. Although language proficiency, an indicator of acculturation, has previously been shown to affect psychological (mal)adjustment (Ying, 1996), the measure does not concern the affect an individual has towards fluency. The literature on the subjective concern with linguistic accent is limited. In this study, concern with linguistic accent is measured along with language proficiency. It is important to distinguish language proficiency from concern with linguistic accent. For example, an immigrant, who lives in the United States and has spoken English for eight years, may be fluent in the language of the majority (i.e., high English language proficiency), but bothered and concerned with the accent he or she has (i.e., high

concern with having an accent in English). Language proficiency is different from concern with a linguistic accent, as it does not involve emotional valence, but rather cognitive assessment of the skill. Therefore it is important to study whether concern with linguistic accent is a better predictor of psychological maladjustment than language proficiency.

In this study, the affective aspect of having an accent, or the degree to which individuals are bothered with their accent will be examined as well as psychological maladjustment. The perception of having an accent may result in higher levels of depression and anxiety. Previous literature on linguistic accents predicted that linguistic accents correlate with non-clinical depression and anxiety (Goto et al., 2002). The purpose of this study is to investigate the connection between insecurities about linguistic accents and mental health. Another purpose is to increase understanding of linguistic accents and their psychological correlates. Lastly, concern with a linguistic accent is expected to be a better predictor of psychological maladjustment than traditionally accepted acculturation variables (e.g., cultural orientation, language fluency).

The goal of the present study is to establish a connection between the concepts of concern with having an accent, measured within Riverside Acculturation Stress Inventory, and psychological maladjustment, measured by a symptomatology inventory. Concern with linguistic accent was also tested to see if it can predict depression and anxiety better than traditionally accepted variables of acculturation such as language fluency and cultural orientation. Two samples were used to demonstrate that results can be replicated with different ethnic groups.

## Study 1: Vietnamese Americans

## Method

### Participants

Participants were 248 Vietnamese American undergraduate students at the University of California, Riverside. They ranged in age from 17 to 33 years (*M* = 19.35, *SD* = 1.60). Participants signed the informed consent form before the study began; parental consent was obtained for participants under the age of 18. The sample was 51.24% female, and 58.61% of the participants were born in the US (i.e., second-generation). Those born elsewhere (i.e., first-generation) had lived in the US for an average of 12.78 years (*SD* = 3.79 years). Third and fourth generations were not present in the sample.

### Measures

**Concern with having an accent.** Concern with having an accent was measured by one item of Riverside Acculturation Stress Inventory (RASI; Benet-Martínez & Haritatos, 2005): "It bothers me that I have an accent (in English or Vietnamese)". The item measured the degree to which an individual was bothered with an accent that he or she may possess in the language spoken in either ethnic or new culture. The response was rated on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

**Cultural Orientation.** Cultural orientation was assessed using the 20-item Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000). The VIA measures two independent cultural orientations in two subscales: American and ethnic (Vietnamese for this study). A sample item from the American cultural orientation subscale is, "I would be willing to marry an American person", and a sample item from the Vietnamese cultural orientation subscale is "I would be willing to marry a person from my heritage culture". Each item was rated on a 5-point scale (1 = *strongly disagree,* 5 = *strongly agree*). The mean score for each subscale was computed. A higher score indicates a higher orientation toward that particular culture. In this sample, the internal consistency reliability for the VIA was good (American: $\alpha = .84$, Vietnamese: $\alpha = .83$).

**Language fluency.** In this study, language fluency was measured using an item on the demographic part of the questionnaire "Overall, how fluent are you in English/Vietnamese". There was one item for each language. The item was rated on a 3-point scale (1 = *not at all fluent,* 2 = *somewhat fluent,* 3 = *fluent).*

**Symptomatology.** In this study, we used the 13-item depression subscale and the 10-item anxiety subscales of the Symptoms Checklist–Revised (SCL-90R; Derogatis & Lazarus, 1994) to measure depression and anxiety symptoms within the seven days prior to the study (which includes the day of the

study). A sample item of the depression subscale is: "Feeling low in energy or slowed down" and a sample item of the anxiety subscale is "Nervousness or shakiness inside". Each item was rated on a 5-point scale (0 = *not at all*, 4 = *extremely*). The mean score for each subscale was calculated, with a higher score indicating a higher level of either depression or anxiety symptomatology. In this sample, the internal consistency reliability for the SCL-90R was excellent overall (depression: $\alpha = .90$, anxiety: $\alpha = .90$).

**Procedure**

Participants were recruits from the psychology department's subject pool where participants fulfilled a course requirement for their introductory psychology courses. For this experiment, subjects participated in the study in small groups. Before beginning the study, a research assistant read a verbal script, greeting and thanking the participants as well as providing instructions. After giving an informed consent, the participants completed the above measures as well as a demographics survey, which collected information such as gender, age, country of birth (and year of immigration, if applicable), and generation status (i.e., whether participants were born in the United States or not). The survey took approximately 30 to 50 minutes to complete. Upon completion, a research assistant debriefed participants.

## Results

The participants in the Vietnamese American sample had good Vietnamese language proficiency ($M$ = 2.17, $SD$ = 0.63) and English language proficiency ($M$ = 2.90, $SD$ = 0.30). The average concern with an accent was 2.05 ($SD$ = 1.09). The average American cultural orientation was 3.88 ($SD$ = 0.46) and mean Vietnamese cultural orientation was 3.81 ($SD$ = 0.50). Mean anxiety-related symptomatology was .90 ($SD$ = 0.79), and the mean depression-related symptomatology was 1.09 ($SD$ = 0.75). Correlations between the variables of interest can be found in Table 1.

**Main analysis**

Correlations showed that concern with one's linguistic accent has a significant small to medium negative relationship with the dominant American cultural orientation ($r$ = -.26, $p$ < .001). However, concern with a linguistic accent was not significantly related to Vietnamese cultural orientation ($r$ = -.003, $p$ = .97). Moreover, the direction of the correlation is negative, such that increased concern with a linguistic accent is associated with decreased orientation towards American culture, and vice versa; but not with orientation to Vietnamese culture.

Hierarchical regression analysis was conducted to test the hypothesis that concern with linguistic accent is a better predictor of psychological maladjustment than traditional acculturation variables. In Step 1, Vietnamese language fluency, English language fluency, American cultural orientation, and Vietnamese cultural orientation were entered as predictors of depression and anxiety. Concern with a linguistic accent was added into the model in Step 2 (see Table 2).

For Vietnamese Americans, concern with one's accent was a significantly better predictor of depression ($\Delta R^2$ = .04, $\beta$ = .21, $t(235)$ = 3.00, $p$ = .003), compared to Vietnamese language fluency, English

Table 1

*Pearson Correlation Matrix Among Variables Measured in Vietnamese American Sample (N =248) and Mexican American Sample (N = 222) (Vietnamese American sample above the diagonal; Mexican American sample below the diagonal)*

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1 | Concern with linguistic accent | - | -.26** | .00 | .20** | .20** | .06 | -.31** |
| 2 | American cultural orientation | -.20** | - | .27** | -.01 | -.03 | .00 | .24** |
| 3 | Ethnic cultural orientation | -.08 | .23 | - | .05 | -.02 | .25** | -.11 |
| 4 | Anxiety | .15* | .03 | -.03 | - | .69** | .07 | -.07 |
| 5 | Depression | .18** | .04 | -.04 | .66** | - | -.05 | -.03 |
| 6 | Foreign language | -.08 | .03 | .39** | .02 | -.02 | - | -.04 |
| 7 | English laguage | -15* | .04 | -.06 | -.08 | -.17* | .00 | - |

*Note*. * $p$ < .05; ** $p$ < .01.

language fluency, American cultural orientation, and Vietnamese cultural orientation. In other words, concern with a linguistic accent predicts depression even after controlling for variables traditionally associated with acculturation such as language fluency and cultural orientation. Increased concern with linguistic accent in this sample predicted higher levels of depression.

For this sample, concern with linguistic accent also significantly predicted anxiety ($\Delta R^2$ = .03, $\beta$ = .20, $t(235)$ = 2.90, $p$ = .004). The direction of the relationship is positive, which means that individuals with greater concern with an accent also tend to have increased levels of anxiety. Furthermore, the hierarchical regression analysis revealed that the concern with linguistic accent is a better predictor of psychological maladjustment than traditionally accepted variables of acculturation.

## Study 2: Mexican Americans

### Method

#### Participants

Participants were 222 Mexican American undergraduate students from the University of California, Riverside. They ranged in age from 17 to 25 years (*M* = 18.82, *SD* = 1.09). Participants signed the informed consent form before the study began; parental consent was obtained for participants under the age of 18. The sample was 72.15% female, and 81.74% of participants were born in the US. Among those born in the US, 78.22% were second-generation, 8.38% were third-generation (i.e., at least one parent born in the US), and 13.41% were fourth-generation or later (i.e., at least one grandparent was born in the US). The participants who were born elsewhere (i.e., first-generation) had lived in the US for an average of 14.44 years (*SD* = 4.52 years).

#### Measures and Procedure

Participants completed the same measures used in Study 1. However, all references to the Vietnamese language or culture were changed to the Spanish language or Mexican culture. The VIA was used to assess cultural orientation; the internal consistency reliability of this scale was good (American: α = .82, Mexican: α = .89). The internal consistency reliability for the SCL-90R was excellent overall (anxiety: α = .89, depression: α = .91). The procedure was the same as that used in Study 1.

### Results

Participants in the Mexican American sample had high mean Spanish language fluency of 2.66 (*SD* = 0.56) and high mean English language fluency of 2.96 (*SD* = 0.20). The participants in the sample were on average less concerned about having a linguistic accent (*M* = 1.97, *SD* = 1.14). The mean American cultural orientation was 3.90 (*SD* = 0.52), and the mean Mexican cultural orientation was 4.25 (*SD* = 0.58). The participants reported low depression (*M* = 0.99,

Table 2

*Summary of Hierarchical Regression Analyses for Study 1 (Vietnamese American Sample)*

| Variables | | Step 1 | | | | Step 2 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | $R^2$ | *B* | *SE B* | $\beta$ | $R^2$ | *B* | *SE B* | $\beta$ |
| Depression (*N* = 241) | | .00 | | | | .04* | | | |
| | Vietnamese language | | -.06 | .08 | -.05 | | -.04 | .08 | -.03 |
| | English laguage | | -.07 | .17 | -.03 | | .06 | .17 | .02 |
| | American cultural orientation | | -.04 | .12 | -.02 | | .03 | .12 | .02 |
| | Vietnamese cultural orientation | | -.01 | .11 | -.01 | | -.03 | .10 | -.02 |
| | Concern with accent | | | | | | .14 | .05 | .21* |
| Anxiety (*N* = 241) | | .02 | | | | .03* | | | |
| | Vietnamese language | | -.11 | .08 | -.09 | | -.10 | .08 | -.08 |
| | English laguage | | -.16 | .18 | -.06 | | -.02 | .18 | -.01 |
| | American cultural orientation | | -.04 | .12 | -.03 | | .03 | .12 | .02 |
| | Vietnamese cultural orientation | | .11 | .11 | .07 | | .10 | .10 | .06 |
| | Concern with accent | | | | | | .14 | .05 | .20* |

*Note*. * $p$ < .01.

Table 3

*Summary of Hierarchical Regression Analyses for Study 2 (Mexican American Sample)*

| Variables | | Step 1 | | | | Step 2 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | $R^2$ | *B* | *SE B* | *β* | $R^2$ | *B* | *SE B* | *β* |
| Depression (N = 222) | | .03 | | | | .03* | | | |
| | Spanish language | | .01 | .10 | .01 | | .03 | .10 | -.02 |
| | English laguage | | -.66 | .26 | -.17* | | -.50 | .26 | -.15* |
| | American cultural orientation | | .07 | .10 | .05 | | .12 | .11 | -.08 |
| | Mexican cultural orientation | | -.09 | .10 | -.07 | | -.09 | .10 | -.06 |
| | Concern with accent | | | | | | .11 | .05 | .17* |
| Anxiety (N = 222) | | .01 | | | | .02* | | | |
| | Spanish language | | .05 | .10 | .03 | | .06 | .10 | .04 |
| | English laguage | | -.34 | .27 | -.09 | | -.26 | -.27 | -.07 |
| | American cultural orientation | | .06 | .11 | .04 | | .10 | .11 | .07 |
| | Mexican cultural orientation | | -.06 | .10 | -.04 | | -.06 | .11 | -.04 |
| | Concern with accent | | | | | | .10 | .05 | .15* |

*Note*. * $p < .05$.

*SD* = 0.77) and low anxiety (*M* = 0.88, *SD* = 0.77). Correlations between the variables can be found in Table 1.

In the Mexican American sample, we found that concern with linguistic accent was negatively related to American cultural orientation ($r = -.20$, $p = .003$). More precisely, an individual who was more concerned with his accent had a tendency to be less culturally oriented towards the dominant culture, and vice versa. In comparison, the relationship to the Mexican cultural orientation and concern with accent was not significant ($r = -.08$, $p = .25$) in this sample.

Hierarchical regression analysis was conducted to test the hypothesis. In Step 1, we entered variables traditionally associated with acculturation (e.g., Spanish language fluency, English language fluency, American cultural orientation, and Mexican cultural orientation) as predictors of psychological maladjustment. Concern with a linguistic accent was entered in Step 2 to see whether the new variable is a better predictor of maladjustment (see Table 3).

The analysis revealed that linguistic accent is a better predictor of depression ($\Delta R^2 = .03$, $\beta = .17$, $t(209) = 2.43$, $p = .02$), than Spanish language fluency, American cultural orientation, and Mexican cultural orientations. Greater concern with a linguistic accent predicted increased levels of depression better than Spanish language fluency and either dominant or ethnic cultural orientation. Results show that greater English language fluency was a good predictor of decreased depression-related symptomatology ($\Delta R^2 = .03$, $\beta = -.15$, $t(209) = 2.43$, $p = .02$).

A separate regression analysis was conducted with anxiety as the criterion variable. Concern with an accent was a good predictor of anxiety-related symptomatology ($\Delta R^2 = .02$, $\beta = .15$, $t(210) = 2.11$, $p = .04$). Moreover, concern with a linguistic accent was a better predictor of anxiety than variables traditionally associated with acculturation. Greater concern with an accent predicted greater anxiety in this sample.

## Discussion

The results support our hypothesis that increased levels of concern with linguistic accent relate to higher levels of psychological maladjustment. These results are similar to findings described in previous studies about the relationship between language proficiency and psychological maladjustment (Kao & Gansneder, 1995). However, the study showed that affective valence towards the accent was a better predictor of psychological maladjustment than language proficiency in both the Vietnamese American sample and the Mexican American sample. Moreover, in the Mexican American sample English language proficiency was also a good predictor of depression, but not anxiety.

Previous literature on the subject considers the frequency of language use and the contexts in which it

is used. Both constructs indicate the level of involvement with the dominant culture (Kang, 2006). In the present study, it was found that concern with linguistic accent is a better predictor of psychological maladjustment than other variables traditionally used to assess acculturation (e.g., dominant culture). The degree of concern with an accent could significantly affect a person's level of involvement with the dominant culture, which in turn could affect the individual's mental health. An individual who is self-conscious about his or her accent and has a negative perception of it might be less motivated to communicate with the dominant or ethnic community. This insecurity may lead the individual to limit the interactions to a minimum to avoid embarrassment (Nicassio, 1983), which in turn can lead to stress and maladjustment.

Even though increased concern with one's accent seems to be related to non-clinical depression and anxiety, there are still limitations to the study. All participants were college students in Southern California at the University of California, Riverside and may not have been representative of the general population. It is important to examine the relationship between concern with an accent and psychological maladjustment in different groups of people and regions before making generalizations. Assessing different regions with less ethnically diverse populations could yield different results, because individuals who have an accent may feel different levels of stigmatization, discrimination, judgment, and distress depending on the location.

Participants may have experienced a social desirability bias even though confidentiality was guaranteed. To avoid this limitation in the future, a social desirability bias inventory could be included and controlled for in the analysis. Participants may have had higher levels of depression, anxiety, and been more bothered with an accent than they reported, which could underestimate the magnitude of the relationship found.

The interpretation of the question "It bothers me that I have an accent (in English or Ethnic Language)" could have been read with an emphasis on one of the two options. The bias towards choosing to report concern with a linguistic accent in English may have occurred.

The study should be replicated with different kinds of accents. Certain accents could be viewed to have a higher status (e.g., French) by the society and cause less concern for the speaker, while others may have a more negative connotation. Also, a quasi-experimental design could be possible with international visitors who possess an accent that is distinguishable. The results of such a study could not only tell if there is a relationship, but also predict the kinds of pronunciation that could cause more distress for an individual.

**Implications**

As Constantine, Okazaki, and Utsey (2004) found, students who are able to communicate and exchange information effectively were less likely to experience problems with adjustment, and had lower levels of acculturative stress. Accent could be important in communication, because it can become a cause of frustration. Frustration could be related to poor mental health. Students concerned with their accent may be less confident in seeking help, asking questions during lectures, and introducing themselves to other people, compared to those students who are less bothered with their accent (Duru & Poyrazll, 2007). Moreover, these students might have more symptoms of psychological maladjustment.

Together, Study 1 and 2 fill a gap in the literature on linguistic accents and present new possibilities for cultural research.The results show that linguistic accent is a better predictor of symptoms of depression and anxiety in both a Vietnamese American sample and a Mexican American sample than other variables associated with acculturation. The results also show that decreased English language proficiency predicts depression in the Mexican American sample. It is important to consider and study linguistic accents and their psychological correlates in the future.

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