

Short Research Note

How accent and gender influence perceptions of competence and warmth in the medical profession

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Abstract

Previous research has shown that we evaluate social categories differently based on the two fundamental dimensions of competence and warmth. Findings indicate that doctors, men, and standard accents are perceived as more competent, while nurses, women and regional accents are perceived as warmer. In a short experiment manipulating gender (man; woman), occupation (doctor; nurse), and accent (standard British; regional accent), participants rated the targets on perceived competence, warmth, and status. The main results showed that doctors were rated as more competent providing they spoke with standard British English, and warmer, as long as they spoke with a regional accent. This poses a potential problem as doctors need to be perceived as competent in their diagnoses and treatment decisions, but also warm in their communication of important and sensitive information. The implications of these findings are discussed to highlight the importance of using multiple social categories to represent the complexity of everyday interactions.

Keywords: Stereotype content model, (non)standard accents, gender, doctors, nurses

Introduction

In our everyday encounters with others we rely on different pieces of information (e.g., gender, language and accent, occupation, etc.) to build a mental ‘picture’ of someone we do not know personally. Though single categories have been fairly well investigated on their own, more work needs to be done to fully understand the processing of multiple social categories and the perceived intersectionality between them (Fiske and Neuberg 1990; Goff, Thomas and Jackson 2008). Additionally, the way a given category is presented (e.g., with a label or voice) might considerably change the impact on the overall evaluation (Hansen, Steffens, Rakić and Wiese 2017; Rakić, Steffens and Mummendey 2011a). The aim of this experiment is to use multiple social categories based on gender, accent, and occupation to test the impact on the evaluation of competence, warmth, and status. Furthermore, this experiment will present categories as closely as possible to the form they are found in real life settings. In other words, with the exception of occupation, gender and accent are not presented by labels (i.e., category names) but through target voices as they would be in a real-life situation. The significance of this approach is that it makes it possible to find out which social categories are more likely to be more salient and therefore potentially discriminated against. Considering the complexity of information (by using multiple social categories) is important because faced with single categories we automatically create some expectations (Bourhis and Giles 1976; Castelli, Zogmaister, Smith and Arcuri 2004). For example, if someone is referred to as a doctor, are we more likely to imagine a man or a woman, and are they more likely to speak with a regional accent or standard British accent?¹ These expectancies are often based on stereotypes we have and the violation of these expectancies can have an effect on the overall evaluation of the person in question (Burgoon and Burgoon 2001).

Different pieces of information are delivered through different channels and can be used in creating impressions of others. This can be, for example, physical appearance or the way someone speaks. Physical appearance is known to influence perception of seemingly unrelated characteristics like competence or intelligence; the more someone is perceived to be attractive the more likely they are to be perceived as being more intelligent (Dion, Berscheid and Walster 1972). Vocal attractiveness can trigger a similar evaluative reaction (Zuckerman and Driver 1989). Interestingly, people cannot 'ignore' pieces of information, even when instructed to do so, and if someone sounds less attractive this will impact the perception of their physical attractiveness and consequently their overall evaluation (Zuckerman, Miyake and Hodgins 1991). Similarly, other factors such as nonverbal communication can have a similar effect (e.g., Gong and Bucy 2016). Additionally, voice can also reveal other things about the speaker such as their gender or even sexual orientation (Fasoli, Maass, Paladino and Sulpizio 2017; Ko, Judd and Blair 2006). Moreover, besides voice, accents are very powerful cues in the impression formation of others (Giles and Rakić 2014).

Indeed, accents have been known to have a very powerful effect on categorizing others (Floccia, Butler, Girard and Goslin 2009; Rakić et al. 2011a). In connection with this, accents can also influence how speakers are evaluated (Fuertes, Gottdiener, Martin, Gilbert and Giles 2012). This can also have negative consequences; for example, in the case of discrimination on the job market (Hansen and Dovidio 2016; Rakić, Steffens and Mummendey 2011b; Sharma, Levon, Watt, Ye and Cardoso, this issue). Research has also found that accents seem to be able to overwrite gender differences when it comes to perceived competence (Rakić et al., 2011b). This is not surprising when accents have been shown to trump race when it comes to children's choice of friends (Kinzler, Shutts, Dejesus and Spelke 2009). Indeed, though accents provide seemingly subtle cues, they have a very strong impact in directing our attention and consequently influencing our evaluations.

Whilst the impact of accents has only become of interest relatively recently in social psychology, it has been at the core of sociolinguistics and communication research for decades (e.g. Giles 1970; Mulac 1975). The fact that accent is such a powerful cue in social categorization and evaluation is not surprising when we consider that it plays a big part in our everyday encounters. Generally we can divide language into standard and nonstandard varieties (Lippi-Green 1997). The standard variety is predominantly taught and transmitted in education, and also used for 'serious' output in the mainstream media, while nonstandard varieties (e.g., dialects) are mostly used in private settings. Previous research finds that, standard varieties are often perceived as more competent and of a higher status, whereas nonstandard variations (e.g., regional accent), albeit not always, are perceived as more warm (Fuertes et al. 2012). However, the distinction between standard and nonstandard variety, or, language and dialect², is often a question of politics rather than inherent linguistic differences (Rakić and Steffens 2013). The reason why nonstandard varieties still survive is because they are a central part of identity. Specifically, Ethnolinguistic Identity Theory (ELIT)³, postulates a strong link between ethnicity and language (accent) (Giles and Johnson 1981, 1987). In fact, accents (and language) have been known to play a very important part in intergroup relations (Giles and Rakić 2014).

Besides accent, other aspects of language, such as type of words, play an important role in terms of speaker's identity as well as perception of others. We use nouns to name objects and people without giving it much thought (e.g., 'a chair' or 'a teacher'), and yet the use of these labels can have a powerful impact on how we perceive those objects and people. Research from social psychology indicates that nouns tend to produce impressions that are perceived as stronger, more durable, and stable. Moreover, nouns tend to trigger perception of others in terms of essentialist properties – to make assumptions of an 'inner essence' which cannot be changed. In doing so, nouns make it harder to activate anything that is not immediately and consistently associated with a given category (e.g., Allport 1954). Nevertheless, it is not always possible to

choose an alternative linguistic form, so in some cases nouns seem inevitable. For example, different occupations are represented with nouns in language; the noun is used simply as the name for a given category (e.g. a lawyer, a doctor, a police officer, etc.).

However, when it comes to person perception one needs to be aware of the complexity of individuals. We are not just our name, or our profession any more than we are how we look, or how we speak. We are a combination of all of these characteristics that make a unique individual out of all of us. In other words, we belong simultaneously to multiple social categories (Crisp and Hewstone 2007). Unfortunately, we often do not have enough cognitive capacity or time to process and use all available information. Consequently, we are likely to stop processing additional information once we have found a meaningful category (categories) in a given context (Fiske and Neuberg 1990). Frequently, therefore, some pieces of information are more or less likely to be used based on their salience. Because categorization is often seen as a first step toward stereotype activation and possible discrimination, it is relevant to understand how different pieces of information are used to make an impression of unknown people. This is only possible by combining multiple social categories and presenting them with increased complexity as well (e.g., visual appearance, voice, occupation, etc.). Certainly, previous evidence shows that the complexity of cross categorization goes beyond the mere sum of its parts and demonstrates how different expectations based on one piece of information can be violated by the subsequent pieces (Hansen, Rakić and Steffens 2017).

When it comes to measuring these stereotypes, the Stereotype Content Model (SCM; Cuddy, Fiske and Glick 2008; Fiske, Cuddy, Glick and Xu 2002) is a useful theoretical framework. The SCM uses two fundamental dimensions, competence and warmth, to assess the perceptions of others. It also shows how different emotions are associated with different evaluations (e.g., envy with groups rated high on competence and low on warmth) (Fiske et al. 2002). This, in turn, can be used to predict possible behaviours; for example, if we are likely to engage in competition or not with someone. This is why SCM is such a useful model when it comes to assessment of different groups.

Similar differences in the evaluation of groups are visible in the medical profession. The two most prominent groups are doctors and nurses. In terms of associated stereotypes, doctors are often perceived as more competent and nurses as warmer. Interestingly, these stereotypes are frequently shared within the professions themselves (e.g. Carpenter 1995). Such stereotypes reflect gender stereotypes where women are often associated with higher warmth and men with higher competence (e.g., Fiske et al. 2002). With this in mind, it is not surprising that in some cases the mismatch between gender and occupation can lead to more extreme evaluations (Hesselbart 1977).

Taken together, these findings show parallels in evaluations of the three different categories: occupation, gender, and accent. Doctors are perceived as more competent than nurses (e.g. Carpenter 1995), men more than women (e.g. Fiske et al. 2002), standard accent more than regional accent (e.g., Giles, Henwood, Coupland and Harriman, 1992). For the perception of warmth though, the opposite pattern is often true. However, as previous evidence showed, we often have certain expectations about what fits together or not, and violation of these expectations can be either positive or negative in terms of the impact on the evaluation (Hansen, Rakić et al., 2017). This is why it is important to use complex social categories in an experimental context to reflect real-life complexity. Since previous findings have shown that not all modalities are the same when it comes to presenting social categories (Ko et al. 2006; Rakić et al. 2011a), a decision was made that in this study they would be presented as they are likely to appear in the real world. The occupation would be presented by the label; the accent and gender through the speaker's voice. The aim of this study is therefore to test the influence of gender, accent, and occupation in a medical context on evaluations of competence, warmth, and social status. More specifically, the following hypotheses were formulated:

1 Regional accent will be perceived as warmer while standard accent will be perceived as more competent and of higher status. Similarly, nurses will be perceived as warmer while doctors will be perceived as more competent and of higher status.

2 Based on evidence that accent is more likely to be used over and above other (often contradictory) information, accent is expected to exaggerate the ratings based on occupation. In other words, doctors speaking with a standard accent will be perceived as most competent and of highest status, while a nurse speaking with a regional accent will be perceived as warmest.

Method

Participants

A total of 351 participants volunteered to take part in the study. The gender distribution was equal (176 women and 175 men), while the average age was 22.35 years ($SD_{age} = 9.32$)⁴. Participants were recruited through opportunity sampling, with a majority being students and native English speakers (mostly from North-West England, and mostly students).

Materials and Procedure

The study was conducted as a 2 (Accent: Received Pronunciation vs. Regional accent) x 2 (Occupation: Doctor vs. Nurse) x 2 (Gender: Women vs. Men) between participant experimental design.

After signing the informed consent, the participants were asked to read a brief vignette introducing the experiment. They were told that they should imagine coming to a hospital for a routine check-up, and while they are waiting they would hear a doctor (or a nurse, depending on the experimental condition) reading a story to a child. Participants were also informed that the given doctor (or nurse) will be visiting them afterwards.

Following written instructions participants were played an approximately 30-second-long voice recording. In this extract speakers were reading either from 'The rainbow passage' or 'Comma gets a cure' stories, both of which, as well as actual recordings, are available at the International Dialects of English Archive (IDEA)⁵. Selected speakers varied, based on gender⁶ as well as their accent (standard and regional accent). In order to exclude the possibility of the impact of a single regional accent, a variety of North English accents⁷ was used. All speakers were genuine speakers of given accents in order to increase the external validity of findings.

After listening to a speech extract, participants were asked to evaluate the doctor that was going to visit them afterwards (or a nurse) based on five traits (friendly, trustworthy, competent, knowledgeable, and high status). Participants were instructed to evaluate them based on their role. All ratings were obtained on a 7-point rating scale ranging from 1 (*not at all*) to 7 (*very much*). At the end, basic demographic information (age, gender and native language) was collected for overall analyses of the sample. Finally, participants were thanked and debriefed.

Results

Following the Stereotype Content Model, items for friendliness and trustworthiness have been combined in a *warmth* dimension (Cronbach's Alpha .71), and competent and knowledgeable in a *competence* dimension (Cronbach's Alpha .82). The item assessing high-status was left on its own, and it will be presented separately. In order to control for Type I error, first a 2 (gender) x 2 (occupation) x 2 (accent) MANOVA was run including all three dependent variables. Only significant differences will be explained in detail in the following section. In case of two-way interaction, simple main effects (adjusted for Bonferroni) are reported.

Competence

In terms of perceived competence significant difference was found based on accent ($F [1,343] = 7.47, p = .007, \eta_p^2 = .021$), occupation ($F [1,343] = 17.44, p < .001, \eta_p^2 = .048$) as well as a two-way interaction between accent and occupation ($F [1,343] = 4.24, p = .040, \eta_p^2 = .012$) and occupation and gender ($F [1,343] = 4.32, p = .038, \eta_p^2 = .012$). More specifically, and in line with previous research, speaking with a standard accent ($M= 5.35, SD = 1.14$) resulted in higher perceived competence than speaking with a regional accent ($M= 4.71, SD = 1.13$). Similarly, doctors ($M= 5.11, SD = 1.16$) were perceived as more competent than nurses ($M= 4.52, SD = 1.16$). Furthermore, the simple main effects for interaction between gender and occupation revealed that the interaction was driven by the female targets. In other words, only the female doctor ($M= 5.32, SD = 1.17$) was perceived as more competent than the female nurse ($M= 4.27, SD = 1.15$), and no other comparison was significant. In terms of interaction between accent and occupation, simple main effects revealed that difference was significant for standard accent ($p < .001$) and the occupation as a doctor ($p < .001$). When speaking with the standard accent, a doctor ($M= 5.61, SD = 1.02$) was perceived to be more competent than a nurse ($M= 4.56, SD = 1.19$). Similarly, a doctor was perceived as more competent when speaking with a standard accent ($M= 5.61, SD = 1.02$) compared to speaking with a regional accent ($M= 4.81, SD = 1.13$).

Warmth

The perception of warmth differed significantly based on accent ($F [1,343] = 14.30, p < .001, \eta_p^2 = .04$), occupation ($F [1,343] = 4.31, p = .039, \eta_p^2 = .012$), and the interaction between accent and occupation ($F [1,343] = 6.03, p = .015, \eta_p^2 = .017$). More specifically, regional accent ($M= 5.21, SD = 1.09$) was perceived to be warmer than a standard accent ($M= 4.39, SD = 1.09$). Similarly, a doctor ($M= 4.88, SD = 1.16$) was perceived as warmer than a nurse ($M= 4.48, SD = 1.18$). However, the simple main effects of the interaction between accent and occupation revealed that the interaction was governed by the regional accent ($p = .004$) whereby a doctor with a regional accent ($M= 5.28, SD = 1.07$) was perceived to be warmer than a nurse with a same accent ($M= 4.63, SD = 1.16$). Furthermore, this was the case for doctors ($p < .001$) who were perceived as warmer when speaking with a regional accent ($M= 5.28, SD = 1.07$) than with a standard accent ($M= 4.39, SD = 1.07$). Overall, the perceived warmth was influenced by the target's accent in line with previous findings, and it was significantly lower for doctors not speaking with the regional accent.

High status

The high-status yield difference was based on the target's occupation ($F [1,343] = 18.79, p < .001, \eta_p^2 = .052$) and accent ($F [1,343] = 31.39, p < .001, \eta_p^2 = .084$), while there were no significant interactions. More specifically, a doctor ($M= 4.96, SD = 1.49$) was perceived as having higher status than a nurse ($M= 4.07, SD = 1.41$). Similarly, a standard accent ($M= 5.09, SD = 1.37$) was perceived having a higher status than regional accent ($M= 3.94, SD = 1.37$). Both of these findings replicate previous findings associating higher status with a standard accent and a doctor, compared to regional accent and nurse.

Discussion

The aim of this experiment was to combine different social categories- occupation, gender, and accent- and to investigate their impact on the evaluation of competence, warmth, and social status. The novelty of this study is the use of multiple social categories and increased ecological validity through use of different type of stimuli (labels, accents, and voices).

In terms of gender-based differences, there was a significant difference in interaction between gender and occupation. More specifically, a woman presented as a doctor was perceived as significantly more competent than one presented as a nurse. This indicates that in the present sample, women are still associated more strongly with the occupation of a nurse than a doctor (Hesselbart 1977). Consequently, introducing a doctor who turned out to be a

woman resulted in a positive expectancy violation and a higher rating for the perceived competence. This is in line with previous experiments showing that positive expectancy violation can cause more extreme ratings (Hansen, Rakić, et al. 2017). These findings show that even though there was no evidence of explicit gender bias, by evaluating men more competently than women there seems to be a strong expectation about what is the more likely occupation for women.

The main effects concerning accents substantially replicated previous findings: a standard accent was perceived as more competent and of higher status than a regional accent. In this study, too, a regional accent was perceived as warmer than a standard accent. In terms of interaction between accent and occupation, however, an interesting pattern emerged: a doctor speaking with a standard accent was perceived as more competent than a nurse with the same accent or a doctor speaking with a regional accent. Surprisingly, though, the same pattern was also true for ratings of perceived warmth: a doctor with a regional accent was perceived to be warmer than a nurse when both spoke with a regional accent and warmer than a doctor speaking with a standard accent. The fact that doctors were perceived as warmer than the nurse could potentially be the artefact of the methodology used in this experiment. Participants were told that they would hear a doctor (or a nurse) reading a story to a child. Because this is something that is less expected of a doctor it possibly resulted in a positive expectancy violation and overall highest rating for the warmth.

Taken together these findings show that accents remain very powerful cues that can change how we perceive someone. Interestingly, and similar to the double-bind used to describe women's language, these findings also seem to indicate a Catch 22 for doctors: if they wish to be perceived as competent and knowledgeable (i.e., high competence) they should speak with a standard accent though if they are to be perceived as trustworthy and likeable (i.e. high warmth) they can achieve it with a regional accent⁸. Because we wish our doctors to be both knowledgeable *and* trustworthy when it comes to taking their recommendations seriously, this raises questions about successful communication. This study can offer some revealing insights into the perception of (and discrimination against) health professionals. Whereas for a nurse accent did not play a significant role, it did so for the doctors. Doctors speaking with a regional accent were perceived as warmer but less competent. This is of considerable significance when we think about a successful communication exchange in a range of contexts, and how different perceptions, evaluations and even expectations can play an important role. How likely are we to engage with someone, and what would the likely outcome of that interaction be?

The interpretations of the present study, though substantiated with the current data, would need to be viewed with caution. This is a relatively small, single study looking at these particular effects. One could also argue that the choice to use different real speakers' accents without controlling for voice could be a limitation (cf. Lambert, Anisfeld and Yeni-Komshian 1965). On the other hand, this actually also offers a highly realistic sample of different varieties of standard and regional accents (Grondelaers, van Hout and Steegs 2010; Axer, this issue) and, arguably, increases the ecological validity of the study (cf. Garrett 2010). Furthermore, this study did not differentiate between different regional accents, as previous findings show that they are often evaluated similarly (e.g., Fuertes et al. 2012; Rakić et al. 2011b). This could be re-assessed and measured in future studies by considering variation between specific accents (e.g. Geordie and Liverpudlian rather than just 'Northern') as well as participants' own accents (e.g. someone with a Liverpudlian accent evaluating someone with a Lancastrian accent) and further exploring the impact of the intergroup context of such constellations. Indeed, what might be perceived as an interpersonal encounter might actually be approached as an intergroup encounter (Giles 2012). In terms of vocal information this study concentrated only on a difference between standard and regional accent; of course, one could also consider a more finely-grained approach, by looking at other vocal and speech qualities.

The context of the study is not a perfect replica of a real-life situation but it does offer some insight into how we deal with different pieces of information to create an overall impression of someone. Even though we are unlikely to find ourselves in a situation where we are explicitly asked to evaluate someone, we still do it implicitly based on available information and our expectations. Such mental judgments can potentially lead to discrimination against certain social groups. Future studies could also test whether accent is indeed such a strong predictor of evaluation or whether there are more ‘extreme’ differences in, for example, occupation (e.g. consultant vs. cleaner). This will allow researchers to test if the overall evaluation is driven by accent or rather by a unique (mis)match between accent and occupation (cf. Sharma, Levon, Watt, Ye and Cardoso, this issue).

Regardless of some of the limitations, this study provides some valuable findings. It demonstrates that as observers, we have the potential to use a variety of available information. Though some of that information might be seen as objectively irrelevant (e.g., doctor’s accent or gender), it can still be used to arrive at a judgment about someone and potentially lead to discrimination. This offers a possibility for many other studies to include much more diverse stimuli: different ethnic appearances (mis)matched with a variety of nonstandard accents (foreign and regional) and test their effect in an array of different occupations. As this study showed, even though we might not be explicitly aware of it, we might still harbour certain expectations, which inevitably impact on our evaluations of others and also lead to discrimination.

References

- Allport, G. W. (1954) Nouns that cut slices. In *The nature of prejudice*. Cambridge: MA: Addison-Wesley.
- Bourhis, R. Y. and Giles, H. (1976). The effects of a speaker's race upon person perception: An addendum. *Journal of Psychology: Interdisciplinary and Applied*, 92(1), 71-76.
- Burgoon, J. K. and Burgoon, M. (2001). Expectancy Theories. In W. P. Robinson and H. Giles (Eds.), *The New Handbook of Language and Social Psychology* (2nd ed., pp. 79-102). Sussex, England: John Wiley & Sons.
- Carpenter, J. (1995). Doctors and Nurses: Stereotypes and Stereotype Change in Interprofessional Education. *Journal of Interprofessional Care*, 9(2), 151-161. doi:10.3109/13561829509047849
- Castelli, L., Zogmaister, C., Smith, E. R. and Arcuri, L. (2004). On the Automatic Evaluation of Social Exemplars. *Journal of Personality and Social Psychology*, 86(3), 373-387.
- Crisp, R. J. and Hewstone, M. (2007). Multiple social categorization. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol 39. (pp. 163-254). San Diego, CA, US: Elsevier Academic Press.
- Cuddy, A. J. C., Fiske, S. T. and Glick, P. (2008). Competence and warmth as universal trait dimensions of interpersonal and intergroup perceptions: The stereotype content model and the BIAS map. In M. P. Zanna (Ed.), *Advances in experimental psychology* (Vol. 40, pp. 61-149). New York: Academic Press.
- Dion, K., Berscheid, E. and Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24(3), 285-290.
- Fasoli, F., Maass, A., Paladino, M. P. and Sulpizio, S. (2017). Gay-and lesbian-sounding auditory cues elicit stereotyping and discrimination. *Archives of sexual behavior*, 46(5), 1261-1277.
- Fiske, S. T., Cuddy, A. J. C., Glick, P. and Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and

- competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.
doi:10.1037//0022-3514.82.6.878
- Fiske, S. T. and Neuberg, S. L. (1990). A continuum of impression formation, from category based to individuating processes: Influence of information and motivation on attention and interpretation. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 23, pp. 1-74). San Diego: Academic Press.
- Floccia, C., Butler, J., Girard, F. and Goslin, J. (2009). Categorization of regional and foreign accent in 5- to 7-year-old British children. *International Journal of Behavioral Development*, 33(4), 366-375. doi:10.1177/0165025409103871
- Fuertes, J. N., Gottdiener, W., Martin, H., Gilbert, T. C. and Giles, H. (2012). A meta-analysis of speakers' accents on interpersonal evaluations. *European Journal of Social Psychology*, 42(1), 120-133.
- Garrett, P. (2010). *Attitudes to language*. Cambridge: Cambridge University Press.
- Giles, H. (1970). Evaluative reactions to accents. *Educational Review*, 22(3), 211-&.
- Giles, H. (2012). *The Handbook of Intergroup Communication*: Routledge.
- Giles, H., Henwood, K., Coupland, N. and Harriman, J. (1992). Language attitudes and cognitive mediation. *Human Communication Research*, 18(4), 500-527.
- Giles, H. and Johnson, P. (1981). The role of language in ethnic group relations. In J. C. Turner and H. Giles (Eds.), *Intergroup Behavior* (pp. 199-243). Oxford: Blackwell.
- Giles, H. and Johnson, P. (1987). Ethnolinguistic identity theory: A social psychological approach to language maintenance. *International Journal of the Sociology of Language*, 68, 69-99.
- Giles, H. and Rakić, T. (2014). Language attitudes: The social determinants and consequences of language variation. In T. Holtgraves (Ed.), *Oxford Handbook of Language and Social Psychology*. Oxford: Oxford University Press.
- Goff, P. A., Thomas, M. A. and Jackson, M. C. (2008). 'Ain't I a woman?': Towards an intersectional approach to person perception and group-based harms. *Sex Roles*, 59(5-6), 392-403. doi:10.1007/s11199-008-9505-4
- Gong, Z. H. and Bucy, E. P. (2016). When style obscures substance: Visual attention to display appropriateness in the 2012 presidential debates. *Communication Monographs*, 83(3), 349-372. doi:10.1080/03637751.2015.1119868
- Grondelaers, S., van Hout, R. and Steegs, M. (2010). Evaluating regional accent variation in standard Dutch. *Journal of Language and Social Psychology*, 29(1), 101-116.
doi:10.1177/0261927x09351681
- Hansen, K. and Dovidio, J. F. (2016). Social dominance orientation, nonnative accents, and hiring recommendations. *Cultural Diversity and Ethnic Minority Psychology*, 22(4), 544.
- Hansen, K., Rakić, T. and Steffens, M. C. (2017). Competent and warm? How mismatching appearance and accent influence first impressions. *Experimental Psychology*, 64(1), 27-36. doi:10.1027/1618-3169/a000348
- Hansen, K., Steffens, M. C., Rakić, T. and Wiese, H. (2017). When appearance does not match accent: neural correlates of ethnicity-related expectancy violations. *Social Cognitive and Affective Neuroscience*, 12(3), 507-515. doi:10.1093/scan/nsw148
- Hesselbart, S. (1977). Women Doctors Win and Male Nurses Lose: A Study of Sex Role and Occupational Stereotypes. *Sociology of Work and Occupations*, 4(1), 49-62.
doi:10.1177/009392857741003
- Kinzler, K. D., Shutts, K., DeJesus, J. and Spelke, E. S. (2009). Accent trumps race in guiding children's social preferences. *Social Cognition*, 27(4), 623-634.

- Ko, S. J., Judd, C. M. and Blair, I. V. (2006). What the Voice Reveals: Within- and Between-Category Stereotyping on the Basis of Voice. *Personality and Social Psychology Bulletin*, 32(6), 806-819.
- Lambert, W. E., Anisfeld, M. and Yeni-Komshian, G. (1965). Evaluation reactions of Jewish and Arab adolescents to dialect and language variations. *Journal of Personality and Social Psychology*, 2(1), 84-90.
- Lippi-Green, R. (1997). *English with an accent: Language, ideology, and discrimination in the United States*. London, New York: Routledge.
- Mulac, A. (1975). Evaluation of the speech dialect attitudinal scale. *Speech Monographs*, 42, 184-189.
- Rakić, T. and Steffens, M. C. (2013). Language attitudes in Western Europe. In *The social meanings of language, dialect, and accent* (pp. 45-64): Peter Lang.
- Rakić, T., Steffens, M. C. and Mummendey, A. (2011a). Blinded by the accent! The minor role of looks in ethnic categorization. *Journal of Personality and Social Psychology*, 100(1), 16-29.
- Rakić, T., Steffens, M. C. and Mummendey, A. (2011b). When it matters how you pronounce it: The influence of regional accents on job interview outcome. *British Journal of Psychology*, 102(4), 868-883. doi:10.1111/j.2044-8295.2011.02051.x
- Zuckerman, M. and Driver, R. E. (1989). What sounds beautiful is good: The vocal attractiveness stereotype. *Journal of Nonverbal Behavior*, 13(2), 67-82.
- Zuckerman, M., Miyake, K. and Hodgins, H. S. (1991). Cross-channel effects of vocal and physical attractiveness and their implications for interpersonal perception. *Journal of Personality and Social Psychology*, 60(4), 545-554.

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Data used in the current article is available under license: CC BY-NC-SA at <https://dx.doi.org/10.17635/lancaster/researchdata/305>

Endnotes

¹ Standard British accent is also known as Received Pronunciation (RP) or Queen's English. For simplicity, I will be referring to standard accent from this point forward. In this study, London RP was used.

² In this study only different accents were used; that is, words and grammar were kept consistent and only pronunciation (i.e. accent) changed.

³ Of course, there are many other theories that could be applied in this context. However, for the sake of clarity and brevity, I only refer to ELIT in this article.

⁴ A total of 26 participants did not disclose their age, hence the descriptive statistics refer to the $n = 325$).

⁵ <http://www.dialectsarchive.com>

⁶ Voices from female and male speakers used in this experiment could clearly be identified by their gender.

⁷ Because previous research didn't find particular differences between different regional accents, a variety of North English accents was used. More specifically, Liverpool, Manchester, Wigan, York.

⁸ Though our participants were mainly from North-West England their evaluations reflect those of previous studies where more heterogeneous samples of native speakers were used.