

A NOTE ON VOICE AND RACIAL CATEGORIZATION IN BRITAIN¹

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The only published studies of voice and racial categorization in Britain have been interpreted as indicating that, within a generation of settlement, West Indians converge on local British accent norms enough to become, to all intents and purposes, linguistically indistinguishable from native White speakers. However, reanalysis of the available data shows that, as far as sample sizes permit conclusions at all, the Black speakers are recognized as Black significantly more than White speakers are falsely categorized as Black, so that claims of complete linguistic assimilation are not supported. Furthermore, the design of the experiments concerned makes it likely that listeners' expectations regarding the proportions of West Indians among the sets of speakers to be heard caused the detectability of Black speakers to be underestimated.

In the only British studies so far published on the topic, Giles and Bourhis (1975, 1976; Bourhis and Giles, 1977) have presented evidence that, by the second generation, immigrants from the West Indies become linguistically assimilated to a point at which about 80% of them speak just like native Whites. This situation the authors contrast with the well-documented state of affairs in the U.S.A., where Blacks are usually recognizable by vocal cues alone, and they state (Giles et al., 1977: 86) with respect to third-generation young Black men that “. . . working class West Indians . . . are perceived to be vocally identical to Whites of the same socioeconomic background,” and again in a later publication (Giles et al., 1977) that, in the Cardiff community they sampled, at least, linguistic assimilation to the norms of the host community “. . . occurred completely within a generation. It is the present purpose to show that, in fact, the statements are not justified by the data, though this is not to deny that substantial linguistic assimilation, surpassing that in the U.S.A., may well have occurred.

Two main arguments are presented: that more detailed analysis of the same data suggests the opposite conclusion from that of the writers, and that listeners' assumptions about the proportions of Blacks and Whites among the speakers (their subjective probabilities) may have created an exaggerated appearance of assimilation.

A REANALYSIS

For their three reports of studies of voice and racial identifiability, Giles and Bourhis analyzed their data by conducting separate binomial tests for each of the Black and White speakers, so that for each speaker the null hypothesis

¹ The author is grateful to Dr H. Giles for supplying the data of Giles and Bourhis (1975) for reanalysis, and to both persons for helpful comments on an earlier draft of this paper.

tested was that he was equally likely to be judged White or Black by the type of listener used. Hence, only Blacks significantly identified as Black at the 5% level of statistical significance are counted as being identifiable as Black. The analysis takes no account at all of the actual tendency for Black speakers to be judged Black *relative to that for White speakers*, the very factor which is critical for testing whether in fact Blacks are vocally identical with Whites.

Since the data have been published in a fairly raw form for two of the reports concerned, and Dr Giles has kindly supplied the others, they may readily be reanalyzed to compare the relative proportions of "Black" judgments of Black and White speakers. Unfortunately, the numbers of White speakers are small enough to hamper the exercise, but illumination may nonetheless be obtained. Treating the proportion of listeners judging each speaker "Black" as his "vocal pigmentation", a suitable test of difference in central tendency may be used to determine whether the Black speakers are vocally "darker" than the White speakers.

Because the data are not normally distributed, the Mann-Whitney U statistic has been applied, with the one-tailed prediction that Black speakers are more likely than White speakers to be judged "Black". Directional null hypotheses have been considered appropriate because the possibility that Black speakers might sound "whiter" than White speakers is not at issue here. Appropriate adjustments have been made where the authors have reported the failure of certain subjects to make ratings.

In the case of 11-year-old speakers (Bourhis and Giles, 1977), the result is clear cut: $U = 175$; $p = 0.0013$. For young adults (Giles and Bourhis, 1976) the difference is not statistically significant: $U = 67$. The same is true for middle-aged speakers (Giles and Bourhis, 1975): $U = 33$. In the latter two cases, however, despite striking disparities between Black and White means, the smallness of the White speaker samples ($n = 5$) vitiates any effective statistical comparison. If the means and standard deviations are examined (Table 1), it can be seen that, apart from the standard deviation for middle-aged Black adults, they are similar to those of the 1977 data, so that it makes sense to consider what the result would be if the means and standard deviations remained the same when the sample sizes were increased to those in the 1977 study, given that these figures do appear fairly stable. It is easier to estimate the effect of such an increase in sample size with respect to a t test than the U test, and, despite the general inappropriateness of t for skewed data, it serves this limited purpose well. The table shows the results of t tests on the data from both papers and it can be seen that they fall in line with those of the U tests already reported. Increasing the sample sizes of the 1975 and 1976 material, as described, if the means and standard deviations were maintained, would yield for the middle-aged speakers: $t = 1.60$; $df = 30$; $0.05 < p < 0.10$ and for the young adults: $t = 2.07$; $df = 30$; $p < 0.025$. It is therefore very likely that it is the fewness of the adult voices that prevents the difference between Black and White speech being statistically detectable.

TABLE 1: PERCENTAGES OF LISTENERS CATEGORIZING SPEAKERS AS "BLACK"

	<i>11-year-old Children</i> (Bourhis & Giles, 1977)		<i>Young Adults</i> (Giles & Bourhis, 1975)		<i>Middle-aged Adults</i> (Giles & Bourhis, 1976)	
	<i>White Speaker</i>	<i>Black Speaker</i>	<i>White Speaker</i>	<i>Black Speaker</i>	<i>White Speaker</i>	<i>Black Speaker</i>
Mean	5.8	22.5	5.0	18.9	4.8	21.5
S.D.	7.0	15.5	6.7	19.0	7.4	30.0
<i>n</i>	9	23	5	20	5	20

SUBJECTIVE PROBABILITIES

The second main argument concerns listeners' expectations that any speaker chosen at random would in fact be White or Black. Subjects in the three experiments received no guidance on this matter. In fact, speakers' ethnicity was deliberately not emphasized to avoid creating a racial set and generating spurious effects.

Research in the field of decision-making indicates that people tend, when guessing to which of two categories one of a set of exemplars belongs, to match the assumed or perceived probabilities of the two categories, even if to do so is not an efficient strategy (Grant et al., 1951). In the present context, listeners were placed in such a guessing situation, though they received no feedback on the success of their efforts. What might they expect the proportion of Black to White speakers to be? A definitive answer requires another experiment, but a crude, and yet cautious, estimate of the range in which it might lie is easy to make. For example, in the absence of any suggestion to the contrary, a listener might expect Blacks to be represented in proportion to their numbers in the Cardiff community (*i.e.* less than 5%). Alternatively, given two categories and no information about their relative frequency, some listeners might perhaps assume a 50:50 distribution, as an "unbiased" presupposition. What would be very hard to imagine would be subjects presuming that Blacks would outnumber Whites, the situation which actually obtained. Thus, subjects may be expected to have anticipated zero to 50% of Black speakers among those they were to hear. Matching probabilities, they would judge speakers to be Black in a minority of instances, which is what they did.

The observation that three-quarters of the Black speakers were significantly perceived as White, using the test Giles and Bourhis chose, is attributable to the listeners' expectations about the proportion of Blacks among the speakers. Had they had reason to believe 80% of the speakers to be Black, quite different results would have been likely. Hence, the data do not justify the conclusion that 75% or more of comparable Blacks, or anything like that figure, beyond the peculiarities of the experimental situations concerned, sound like Whites. The figure remains unknown.

A possible objection to the above argument would be that subjective probabilities are irrelevant, since listeners were making decisions based on actual evidence and not simply guessing unaided. However, the task was not simply one of straightforward perceptual classification, and involved a considerable degree of uncertainty for the judges. To the extent that this was so, the argument is applicable. Were Giles and Bourhis's conclusions in fact correct, unpredictability would have been at a maximum, and the classical probability-matching context would have been created. It should possibly be noted that the reanalysis in the preceding section is not vulnerable to the criticism developed here because, unlike the binomial tests Giles and Bourhis used, it is unaffected by the absolute level of recognition of Black speakers.

DISCUSSIONS AND CONCLUSIONS

It has been shown that the low detection rate for Cardiff West Indians which has been observed in the experiments reported by Giles and Bourhis, because of listeners' likely expectations about the proportion of Blacks among the speakers, cannot alone be regarded as convincing enough evidence that the West Indians are difficult to recognize on the basis of their accent. Indeed, the data themselves, when more appropriately analyzed, show that the groups of Black and White speakers *were* actually distinguishable, though inspection of the data shows that some individuals were much more distinguishable than others. Such statements as that complete linguistic assimilation has occurred, or that the Blacks concerned are vocally identical with Whites, are therefore unjustified. This does not mean that sociolinguistic convergence is not taking place at all, or even that it is not doing so more quickly than in the U.S.A. It is quite believable that many British Blacks speak just like their White compatriots, and this proportion may be expected to

increase. Still more, probably, can scarcely be distinguished, or can only be distinguished by trained or particularly acute listeners. These points are not in dispute. The strong statements of the researchers, however, require scientific proof, and the evidence they provide is insufficient.

A further, final, caution about these studies concerns the representativeness of Butetown, Cardiff, of U.K. cities in general. This is partly acknowledged by the authors themselves, but it bears extra emphasis. Butetown's Black community, being of longer standing than those in most British cities, and not having received proportionately as many during the most recent period of West Indian immigration, may be expected to have converged more on to local norms than those elsewhere, so that any pattern of results obtained there should not be treated as typical.

REFERENCES

- Bourhis, R. Y., Giles, H., 1977: Children's voices and ethnic categorization in Britain. *La Monda Lingvo-Problemo*, **6**: 85-94.
- Giles, H., Bourhis, R. Y., 1975: Linguistic assimilation: West Indians in Cardiff. *Language Sciences*, **38**: 9-12.
- Giles, H., Bourhis, R. Y., 1976: Voice and racial categorization in Britain. *Communication Monographs*, **43**: 108-14.
- Giles, H., Bourhis, R. Y., Taylor, D. M., 1977: Towards a theory of language in ethnic group relations. In H. Giles (Ed.), *Language, Ethnicity and Intergroup Relations*. Academic Press, London and New York.
- Grant, D. A., Hake, H. W., Hornsperth, J. P., 1951: Acquisition and extinction of a verbal conditioned response with differing percentages of reinforcement. *Journal of Experimental Psychology*, **42**: 1-5.

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