

## NATIVE-SPEAKER REACTIONS TO NONNATIVE SPEECH: A REVIEW\*

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It has been extensively proved that language, besides its purely formal component, has a social component that affects the life and attitudes of every human being. Language is probably the most truly human manifestation of our capacities, and as such, it is intimately associated to all other aspects of our lives. This statement can be illustrated by way of common experience of people from a village being laughed at by people of a neighboring village, for the only reason that they have one or two minor differences in their linguistic system. Furthermore, some cases have been reported of people being discriminated against for job selection due to their foreign accents (Kalin and Rayko, 1978). Therefore, the way we speak, our grammar, our vocabulary, our pronunciation, our tone, and our speaking rate will determine how we are perceived by our listeners. These factors affect the unconscious part of our mind, and they are no less effective just because we are not aware of them. In addition, they contribute to the capacity of knowing about other people through many cues other than actual words and sentences. However, they cannot all be tackled at once. In order to build up a theory of what linguistic aspects lie behind personality judgements and personality stereotypes, studies have to be constrained and must concentrate on the effect of certain specific -linguistic or non linguistic-elements that may affect human perceptions.

An interesting and little explored approach to language is the study of reactions of native speakers to oral or written passages representing different varieties of their language. This approach is particularly relevant to applied linguists interested in the teaching and learning of foreign languages. Teachers usually know the language they have to teach, they also know some communication strategies, and how to help their students practice and learn them, but they largely ignore what is the target linguistic community attitude toward nonnatives in general, and towards specific groups of foreigners. They may also ignore what levels of linguistic knowledge are the best in conveying textual information, and what are the errors that most disturb and irritate a native speaker with no linguistic training at all. Chances are that the most disturbing errors do not coincide with those that the teachers have traditionally stigmatized.

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\* This is a revised and extended version of a paper presented at the *XIX Congreso Internacional de la Asociación Española de Estudios Anglonorteamericanos (AEDEAN)*, held in Vigo, 13-16th December 1995.

This paper intends to offer a chronological review of some relevant studies that have so far attempted to respond to this need of knowledge, with the aim of presenting an overview of research that has been done so far, and the evolution this kind of studies has undergone. Researchers have so far devoted their attention to three main areas:

- evaluation of the personality of speakers from different speech communities. The aim was to compile information about stereotypes and prejudices a group of people held towards another group, or towards themselves.
- identification of the linguistic errors -especially in grammar, vocabulary, and pronunciation- that affect comprehension by native speakers, as well as what kind of errors produce a higher degree of irritation in the listener, and the degree of acceptability/unacceptability of different types of errors.
- reactions of natives to nonnative speech. The effect that overall proficiency of the nonnative has on the native speaker; what kind of interactions are held between natives and nonnatives; and whether they differ from those held among natives.

The first studies published in this field focused on the first approach: evaluation of speech communities and discovery of stereotypes towards certain communities. The pioneering investigation was conducted by Wallace Lambert and his associates (Lambert, *et al.*, 1960). They tested the reactions of a group of students in Montreal towards spoken language. The purpose of the investigation "was to determine the significance spoken language has for listeners by analysing their evaluational reactions to English and French". They used the «matched-guise» technique to "minimize the effects of both the voice of the speaker and his message". The results indicated that subjects evaluated the same speaker differently depending on the language he used.

This study triggered many other similar investigations. The most significant ones were conducted by Howard Giles (Giles & Powesland, 1975) and Ryan & Carranza (1975) who established an important distinction between 'status' and 'solidarity'. They argued that some accent or language groups are rated more favourably than others regarding status or position in the social scale, whereas ratings may be different regarding solidarity or empathy values. The distinction between status and solidarity was made possible by the use of the 'semantic differential' designed by Charles Osgood (Osgood *et al.*, 1957), which consisted of a list of personality traits that subjects had to rate numerically from one to five.

Giles found out that, in Great Britain, RP was better rated in status than other British accents, but these accents received higher evaluations in solidarity traits. Ryan, in Texas, obtained clearly different results for status and solidarity, but she observed that standard English was always preferred to Mexican accented English, even by Mexican American subjects. Romaine (1980), investigating in the same line, confirmed previous claims that reactions to speech styles were in fact reactions to stereotyped social groups. In Spain, Maria Ros (1982) conducted a study in which she compared the evaluations given by people from Valencia to five language varieties, namely standard and non-standard Castilian, the standard variety of Catalan spoken in Catalonia, and the standard and non-standard variety of Catalan spoken in Valencia. She also arrived at conclusions that linked linguistic varieties to such factors as social status and personality.

All of the above described studies failed to show a true linguistic interest, and their purposes were rather more sociological than linguistic. However, during the last fifteen years, applied linguists have become more interested in aspects dealing with intelligibility of non-native speakers, and have tried to establish what linguistic errors are regarded as most unintelligible and most disturbing by native speakers. These studies were rather more concerned with the second and the third approaches outlined above. One of the studies was conducted by Hinofotis and Bailey (1981). They presented undergraduate students at UCLA with videotaped speech samples of International Teaching Assistants (ITAs) in a role-play situation before and after instruction in oral communication, and asked them to decide on their most problematic communication areas. The results indicated that the most frequently cited problem was about the subjects' explanations being boring. The researchers attributed those results to the speakers' non-native intonation patterns, and they concluded that pronunciation was the single most important factor in the evaluation of the ITAs' performances. That claim was confirmed by pronunciation being ranked first on a questionnaire where twelve subcategories of performance had to be ordered from most important to least important. Grammar was ranked seventh, and vocabulary was relegated to the eighth position.

Galloway (1980) wondered whether second-language students would be successful affective communicators or be judged negatively as a result of their ill-formed speech. She aimed at identifying "whether judgements of oral communicative proficiency, both informational and affective, differ between communities of native and non-native speakers". An interesting finding was that where native speakers paid more attention to the message, non-native teachers were concerned with grammatical accuracy. However, Ensz (1982), in a study in which two hundred and fifty French people reacted to taped speech samples of Americans speaking French, found that errors in grammar were considered the least tolerable.

Other studies have investigated the relationship among pronunciation, grammar, and comprehensibility. Varonis and Gass (1982) found that those three factors were interrelated, in such a way that both grammar and pronunciation affected comprehension, and by the same token, comprehensibility affected how pronunciation was judged by native speakers.

Almost at the same time, Ludwig (1982), and Eisenstein (1983) reviewed a good deal of research done up to that moment. Ludwig surveyed twelve different studies which although not being directly comparable still provided some clear views on what was being done in such related themes as comprehensibility, irritation, acceptability, communicative strategies, personality, and the differences in perception of L2 communication by native speakers and non-native speakers who teach the language. Based on the findings of Albrechtsen *et al.* (1980), Ensz (1982) and Galloway (1980), Ludwig claimed that linguistic correctness is not the primary source of personality judgements. This claim was opposed by Lurda (1993), who controlled both age and language of origin, to conclude that linguistic competence did have a positive effect on the ratings, and that linguistic accuracy played a very important role in the forming of an overall opinion of the speaker. Although the results didn't show a total positive correlation between language proficiency and such personality traits as 'amusing' or 'generous', there was a very significant correlation between being proficient in the language and being perceived as intelligent, well-educated, hard-working, and endowed with leadership ability.

Eisenstein's review presented different research approaches to the study of listener reactions and attitudes toward particular language samples, and it reported on studies aimed at measuring error gravity, intelligibility, reactions to the learners as individuals, and the interrelation between accent and employment discrimination. Eisenstein's article dealt with the whole area of reactions to accented speech in a comprehensive way, presenting findings on the many different aspects involved in it.

During the eighties, several studies approached the analysis of non-native speech from a perceptual perspective, and they concentrated on native speakers' reactions to taped speech samples produced by non-native speakers. Gynan (1985) used that methodology to deal with the concepts of comprehensibility and irritation. He argued that although irritation was traditionally defined as a negative affective response from the native speaker, 'native speaker response to interlanguage is not solely the result of irritation but rather of evaluation as well'. This evaluational variable was labeled 'language attitude' and it included irritation as an affective attitude.

He asked one hundred and eighty-six Spanish speakers to rate two taped samples by two American students of Spanish at the University of Texas at Austin. The samples were elicited using a series of photographs describing transportation development. The questionnaire given to the native speakers included statements about accent and comprehensibility, as well as the vocabulary, syntax and pronunciation of the samples, to which the raters had to agree or disagree on a seven-point scale. The results showed that the intermediate speaker was rated slightly better than the low one on most measures. The lowest scores for the intermediate learner were on morphosyntax, and he was rated higher on items dealing with pronunciation. The lower ability speaker was also rated worse on items dealing with morphosyntax than those dealing with phonology. The author interpreted those results as proving that morphosyntactic errors were more salient than phonological ones. However, although accentedness was related to morphosyntax, comprehensibility was highly related to phonology, which suggested that comprehensibility and accentedness (a factor very much related to irritability) were two separate factors, and perceived as different by the native speaker. A problem with that study was the limited number of speakers (only two). In addition, the correlations between comprehensibility and phonology, and between accentedness and morphosyntax, were solely based on naive native speakers judgements, which might well not be accurate enough from a linguistic point of view.

Smith and Nelson (1985) tackled international intelligibility, and they attempted to define and differentiate three very similar concepts: *intelligibility*, *comprehensibility*, and *interpretability*. Intelligibility was limited to the recognition of words or utterances; comprehensibility was the understanding of the meaning of a word or utterance; and interpretability represented the interpretation or processing of the meaning behind the word or utterance. They suggested that future research should incorporate that distinction.

Intelligibility was also one of the aspects analyzed by Fayer and Krasinski (1987), who conducted a study in Puerto Rico among Spanish speaking students of English. They focused on irritation and intelligibility, and on what linguistic features affected the latter. The researchers recorded samples from seven different speakers, and these were played to two groups of listeners: 88 Puerto Rican university students,

and 40 native English speakers who had been living in Puerto Rico for less than a year. Listeners had to rate from 1 to 5 the overall intelligibility of the speakers, and next they were played again the same tape and were asked to judge from 1 to 5 each speaker's grammar, pronunciation, intonation, frequency of wrong words, voice quality and hesitations. First they observed that judgements on intelligibility were made rather quickly (only 5 seconds were needed to rate a speaker), and that listeners' judgements of a speaker were influenced by the intelligibility of the previous speaker. Next, they found that pronunciation and hesitation were the most distracting features, followed far behind by grammar. In addition, there was no difference in intelligibility and distraction as reported by native and nonnative speakers. Nevertheless, linguistic form was rated higher by English native speakers, and Spanish listeners reported much more annoyance than the English ones. In the discussion, the authors pinpointed that "while both Spanish and English respondents were equally distracted by certain features of the nonnative speech, they were not equally annoyed", English listeners being more tolerant than Spanish ones. This point was used to argue that in a language learning context, learners have to be aware that their speech may be judged differently by native and non-native listeners, these being less tolerant than native speakers. However, they didn't take into account in their analysis the fact that the Spanish-speaking group of respondents was composed of university students, whereas the English group was made up of a non studying population; a factor that could possibly explain some differences in the judgements elicited from the two groups.

Santos (1988) investigated professors' reactions to written errors in students' compositions. He came up with two conclusions. The first was that lexical errors were considered the most serious ones, thus confirming Chun *et al.* (1982) claim that native speakers tended to correct non-native discourse and vocabulary errors more frequently than errors in syntax. The second conclusion implied that non-native speakers are more severe in their judgements than natives.

Anderson-Hsieh and Koehler (1988) looked at the effect of foreign accent and speaking rate on comprehension. Two hundred and twenty-four American students listened to a passage read by non-native speakers of English and answered 6 multiple-choice questions about the contents of the passage. The average number of correct answers obtained by respondents on each passage would indicate the degree of comprehensibility of each speaker. The researchers found that the faster the speaking rate, the lower the comprehension by native speakers. This was true for all speakers, both native and non-native, but it was most visible in the case of non-natives with a stronger accent. However, the effect on comprehensibility was found only between the regular and fast rate, and no differences appeared between the slow and regular rate for any speaker.

Speaking rate was also taken into account by Schairer (1992), who studied how native speakers of Spanish evaluated the comprehensibility of non-native speech samples. The researcher's aim was to find out what phonological errors produced by American English speakers most affected the comprehensibility of whole utterances. The researcher recorded 18 English speakers reading from scripts containing blanks which they had filled in prior to making the recording. The speech samples were evaluated through a phonetic analysis by the investigator, and a native speaker evaluation of comprehensibility or incomprehensibility of the recorded samples along a scale of one to six. The results indicated that native speaker evaluations of

the speech samples were most strongly associated with two phonological factors: overall production of vowels; and consonant linkage. Speaking rate was not reported to be an outstanding feature. The author also noted that rater's gender, the rater's experience as a teacher, and the rater's ability to speak English, did not account for any significant variation in the results.

Llurda (1995) conducted a replication of this study, but inverting the languages. Speakers were Hispanic whereas listeners were Anglo-American students at the State University of New York at Stony Brook. Results showed that speaking rate was the most important single factor affecting intelligibility, followed by /p/,/t/,/k/, and /b/,/d/,/g/. Consequently, none of the three best correlated elements in Shairer (1992) and Llurda (1995) were coincident. An explanation to the divergence of results could be explained by the fact that intelligibility is determined by language specific factors, and no common universal traits may be established.

The last study reviewed also used a Teaching Assistant at an American university. Brown (1992) investigated whether there were "differences in student perceptions of a speaker's personal aesthetic qualities, language competence, and teaching competence (...) when the speaker's country of origin, educational status, and ascribed native speakerness" were altered. She presented a video-tape, in which a foreign-accented speaker was lecturing on a scientific topic, to different groups of students. The tape was the same for all groups of students, but they were given different information regarding his country of origin, level of English, or educational status. Students had to evaluate the speaker in different traits, on a semantic differential scale. Results indicated that the variable "country of origin" had a clear effect on the evaluation of "language competence". Another finding was that "personal aesthetic quality" was only influenced by the variable "educational status", whereas "teaching competence" was affected by a combination of "educational status" and "level of English".

### *Conclusion*

Most applied linguists studying reactions to non-native errors have focused on the observation of pronunciation, lexical, and grammatical errors, and their effects in terms of intelligibility, acceptability, and irritability. A problem that arises from this fact is that researchers have based their studies on what we will call "overt errors", i.e. errors of commission rather than errors of omission. The problem with that approach is that errors of omission, namely "covert errors", still exist and cannot be identified unless the total performance of the learner is compared with the performance of native speakers in similar situations. Therefore, we cannot tell to what extent native reactions are motivated by either overt or covert errors, although both of them may be responsible for the judgements on intelligibility, acceptability, etc. We still need to work on the development of more sophisticated ways of discovering and fully understanding all kinds of errors, either 'overt' or 'covert'.

Additionally, some of the methods used to elicit nonnative performances are not comparable and neither are their results. This, together with the lack of replications to previous studies limits the generalization and further use of the conclusions reached by researchers. For instance, many studies on native speaker reaction to learner speech have been designed around the recitation by a number of speakers of a passage of prose, selected by the researchers precisely because the passage is

presumed to be neutral in tone. No comparison is possible among different texts used, and no comment is given regarding the possible effect of the text itself on the final results. Diversity of texts and their possible influence on the results will have to be neutralized by devising new experiments with similar objectives that use many different types of texts, which will have to be obtained by a wide range of methods, from reading to free speech, not forgetting the use of speech elicitation techniques such as drawings, sequences, and so on.

A final issue we want to raise is the importance of the study of nonnative speech and nonnative intelligibility in the context of a fast growing nonnative English speaking population. As the world becomes a single communicational area, we must deepen our knowledge of the attitudes, prejudices, and mechanisms of interaction between cultures. In addition, we need to figure out what are the priorities in teaching a foreign language -and specially in teaching English-, in order to help the learner reach a stage in his/her interlanguage that is satisfactory, and enables positive communication. At this point, our view is that we have to be well aware of all the flaws of previous studies, but we must continue doing research on error analysis, and particularly on native reactions to nonnative speech, in order to eventually help teachers with new information about the target linguistic community, as well as their attitudes and prejudices towards nonnative speakers.

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## RESUM

**Reaccions dels parlants nadius a la parla no nadiua: assaig de revisió.**

A partir dels treballs de Lambert i altres (1960) s'inicia un camp en l'estudi del llenguatge que pren com a base l'anàlisi de les reaccions provocades per un parlant a la seva audiència. Cap als anys vuitanta aquests estudis s'obren a les reaccions dels parlants nadius d'una llengua envers la parla dels no nadius. En aquest article presentem una revisió cronològica de les investigacions més significatives que s'han realitzat fins al moment, així com una valoració de les seves virtuts i mancances, per acabar defensant la necessitat d'aquests estudis en el camp de la lingüística aplicada.

## SUMMARY

The seminal work of Lambert et al. (1960) opened a new field of study of language that was based on the analysis of the reactions caused by a speaker on his/her audience. In the eighties, research includes reactions of native speakers towards non native speech. In this paper, we present a chronological review of the most significant research to date, as well as an evaluation of their virtues and flaws, to conclude with a defense of the need of these studies in the field of applied linguistics.