

## **PRODUCTION, PERCEPTION AND ATTITUDE**

### **INTRODUCTION**

John NERBONNE<sup>1</sup>, Stefan GRONDELAERS<sup>2</sup>, Dirk SPEELMAN<sup>3</sup> & Maria-Pilar PEREA<sup>4</sup>

<sup>1</sup>University of Groningen

J.Nerbonne@RuG.NL

<sup>2</sup>Radboud University, Nijmegen

S.Grondelaers@Let.RU.NL

<sup>3</sup>Catholic University of Leuven

Dirk.Speelman@Arts.KULeuven.BE

<sup>4</sup>Universitat de Barcelona

mpilar.perea@ub.edu

### **Abstract**

We briefly introduce the papers in this special issue of *Dialectologia* on production, perception and attitude. They are the result of a call for papers issued at an interdisciplinary workshop Leuven in 2009 organized by Dirk Geeraerts, Stef Grondelaers, Leen Impe and Dirk Speelman.

## **PRODUCCIÓN, PERCEPCIÓN Y ACTITUD**

### **INTRODUCCIÓN**

### **Resumen**

He aquí una breve presentación de los artículos de este número especial de *Dialectologia* sobre producción, percepción y actitud. Son el resultado de una selección de las comunicaciones presentadas en el taller interdisciplinario *Production, perception and attitude*, que tuvo lugar en la Universidad de Lovaina en 2009 y organizado por Dirk Geeraerts, Stef Grondelaers, Leen Impe y Dirk Speelman.

The interdisciplinary workshop *Production, perception and attitude* was organized with the (ambitious) goal to go beyond the description of linguistic

variation, and to focus on the understanding and explanation of variation (<http://wwwling.arts.kuleuven.be/ppa/>). Up to now, linguistic variation in the Low Countries has been investigated predominantly from the perspective of language *production*, i.e. in terms of the description of the linguistic distance between regional and stylistic varieties of Dutch (cf. Geeraerts, Grondelaers & Speelman 1999; Van Hout & Van de Velde 2001; Heeringa & Nerbonne 2001). In order to move from describing to *explaining* variation, three extensions were thought to be needed by the workshop organizers.

First, the production perspective on linguistic variation has to be refined theoretically and methodologically in order to chart unknown patterns and (more importantly) triggers of variation. Second, it is well-known that some language variation and change patterns are sustained by *attitudinal* factors (whereby “attitudes” are provisionally defined as the culturally and experientially acquired inclination to perceive and evaluate a variety as systematically negative or positive). Although the causal link between perception and production has recurrently been demonstrated (cf. Van Bezooijen 2001), both define different disciplines in (socio)linguistics and social psychology which rarely interact. Attitude research is moreover hindered by a lack of reliable quantitative data (Grondelaers, Van Hout & Steegs 2010).

In addition to these two perspectives, the workshop also focused on the (often missing) link between the production and the evaluative perception of language variation. Before language variation can be subjectively evaluated, it must first be recognized by the layman. Perceptual dialectology (Preston 1999) therefore investigates to what extent linguistic laymen recognize and understand other varieties, and where they situate the boundaries between their own and other varieties. Another crucial perspective which has largely been ignored in this respect is the mutual intelligibility between language varieties, a factor which is co-determined by attitudes and by linguistic distance (Gooskens 2007).

The talks were held at the beautiful Convent of Chièvres (<http://wwwling.arts.kuleuven.be/ppa/venue.htm>), a part of the Catholic University of Leuven, and there were approximately 70 participants. We issued a call for papers at the conference, encouraging the speakers and poster presenters to consider publication in this collection, to which there was a gratifying response. The papers were refereed and the result you see before you.

## **The papers**

Dennis Preston's paper, "The Power of Language Regard — Discrimination, Classification, Comprehension and Production", was one of the keynote lectures at the Leuven workshop and is an excellent introductory paper to this volume. Preston suggests that we focus on the general phenomenon of LANGUAGE REGARD as a broad category encompassing both implicit attitudes toward language varieties as they are perceived and explicit opinions about varieties which may or may not be coupled with effective means of identifying those varieties. Preston deliberately includes non-evaluative beliefs about language varieties under 'regard' and focuses on how regard (or what we dubbed "attitude" in our title) influences production and perception.

Some sociolinguists have postulated that language regard (attitudes toward specific speech habits) might be so uniform throughout a language community as to provide a defining criterion (for dialects and sociolects), but Preston suggests scepticism with respect to this point, referring to recent Danish work. In the major argument in the paper Preston argues that language regard may explain how subconscious language changes (or "changes from below") are at all possible. He re-examines several studies which have shown how unaware speakers are of the changes in their own pronunciation in the wake of the famous NORTHERN CITIES SHIFT (hence: NCS, Labov, 1994). Experiments have disclosed systematic misperceptions, where subjects consistently interpret a token of 'socks' as 'sacks', which may not seem surprising, as its pronunciation is closer to [æ] than [ɔ]. But Preston admonishes that this should seem surprising, since it involves the most common realization of the word in the subjects' own speech is [æ]. He proposes that the subjects' language regard influences their perception. They perceive isolated words in a pre-NCS fashion, one that apparently accords best with their own notion of the correctness of local speech. More strikingly, Niedzielski (1999) asked subjects to match an acoustic sample from a word they were told (whose pronunciation they therefore "knew"), and with one of three acoustic samples, one of which matched the vocal quality (the first two formants) of the first token exactly, and two which were acoustically much closer to pre-NCS pronunciations. Subjects consistently failed to match the first pronunciation they heard with the acoustically comparable element and consistently chose a vowel closer to the older, pre-

NCS variant. Preston suggests of course that language regard is the missing premise in the explanatory syllogism: subjects “hear” what they expect to hear on the basis of the word they are told is being pronounced, but fail to choose the vowel quality they themselves use as the match to the first token. Preston also discusses how NCS effects fail to influence what language users perceive as rhymes, and by examining the confusion matrix of vowels resulting from the experiment, is able to show that misperception is due less to phonetic proximity than to expectations arising from pre-NCS pronunciations — choices due to language regard, in this case local residents’ belief in the standard quality of local speech.

Anja Schüppert and Charlotte Gooskens use reaction times to investigate the relation between language attitudes and comprehension. They study Scandinavian languages, where receptive bilingualism is common, i.e. the ability to understand another Scandinavian language well enough so that conversation partners may each speak in his or her own language during a conversation. They focus on receptive bilingualism between Swedish and Danish, which is notoriously asymmetric: Danes understand spoken Swedish better than Swedes understand spoken Danish. Earlier research has assumed that the degree of comprehension of a related language or dialect might be explained by linguistic factors, but also by attitude and experience, and indeed Danes are in general more positive about their neighbors’ language than Swedes are. Schüppert and Gooskens’ experiments investigating the degree of comprehension take the clever step of including subjects with little experience in the other language, and, presumably rather underdeveloped attitudes toward it — children! The results are interesting in two respects. First, they extend the surprising results of an earlier experiment of their own in which it turned out that there was no difference in comprehension between the Danish and Swedish children, indicating that linguistic differences cannot be the source of the asymmetry in adult comprehension. Second, they also elicited their subjects’ attitudes toward their neighbors’ language, which turn out to correlate only weakly ( $-0.1 < r < 0.1$ ) with comprehension rates. The conclusion might be that the notorious Danish-Swedish asymmetry in understanding must be caused by factors other than language attitudes, such as an asymmetric amount of language contact or by the fact that conservative Danish orthography serves as an additional cue for literate Danes when confronted with spoken Swedish — but, as the authors suggest,

improved and more sensitive assays of attitudes would be worth pursuing, such as Impe (2010).

John Nerbonne, Rinke Colen, Charlotte Gooskens, Peter Kleiweg and Therese Leinonen present “Gabmap — A Web Application for Dialectology”, a suite of tools supporting dialect analysis, and focusing on providing dialectometric, or aggregate (site  $\times$  site) measures of linguistic distances and for visualizing analyses in maps. Since it is a web application, Gabmap does not require downloading, installation or maintenance (updates). It supports the analysis of perceptual data in the form of phonetic transcriptions or vocabulary lists, and it is also equipped to support the aggregate analysis of acoustic data if it is provided in the form of formant frequencies. Although Gabmap’s focus is on dialectometric analysis, it also provides some tools for checking phonetic transcriptions, for inspecting measurements (alignments), and for visualizing the geographical distribution of individual features.

Charlotte Gooskens, Sebastian Kürschner and Renée van Bezooijen study the intelligibility of standard German and Low German for speakers of Dutch. The study shows that the Dutch listeners in their experiment understand Standard German better than Low German, even though Low German is linguistically closer to Dutch than standard German is. Pronunciation by itself should favor the understanding of Low German, which leads the authors to conclude that their subjects’ greater amount of experience with Standard German, which is broadcast on Dutch television throughout the country, must be facilitating their comprehension. A second series of experiments was conducted comparing the comprehension of Dutch subjects from areas near the German border with (the comprehension of) subjects from areas relatively far from the border. The comprehension of Low German was the focus. Note that the “border” subjects had a double advantage, having both more opportunity for contact and a linguistic advantage as speakers of a dialect (Low Saxon) that is linguistically closer to Low German, and indeed their comprehension was superior. Gooskens and her colleagues carefully analyze the comprehension of cognate words separately from that of non-cognate words. It also turns out that the border subjects have a substantial advantage in the comprehension of cognates, and that pronunciation distance between Low German on the one hand and either standard Dutch or Low Saxon correlates strongly with a word’s comprehensibility, providing evidence that linguistic proximity is an important player in predicting comprehensibility as well. Since the border subjects

understand non-cognate words better than their compatriots further west, the authors conclude that experience also plays a role, albeit a less important one, in comprehension.

Christoph Purschke's paper "Regional Linguistic Knowledge and Perception. On the Conceptualization of Hessian", focuses on the perception of dialects by local laymen as opposed to professional dialectologists or sociolinguists. Information about laymen's conceptualization is obtained from maps they provide during experimental sessions (Preston 2010). Speakers in Hessen tend to classify speech into one of about eight classes and areas, including e.g., standard German, Bavarian or Berliner. Speakers from different areas identify different classes and areas – those from a larger area identify more, and subjects asked to identify speech areas within smaller maps tend to discriminate more finely. Purschke emphasizes that the lay classification is not based purely on acoustic experience, but reflects instead the complex conceptualization of language and language varieties, a more socially based construct than personal experience alone. The author examines conceptualization at different levels of detail, examining both the different varieties of German, but also the different dialects within Hessian. As an example of the impact of a factor that is not linguistic, Purschke notes the salience of Frankfurt in his subjects' reports, presumably due to the overriding importance of Frankfurt in Hessen and in the media. The paper goes on to show that conceptualization influences both perception and production. Purschke reports on how well Hessians are able to identify the provenance of different varieties when they perceive them, and that new Hessian (the variety of Frankfurt) is identified relatively well, in accordance with Frankfurt's conceptual salience. He also examines how well non-Hessians can produce (mimic) Hessian, where he again detects a conceptual orientation toward features found in Frankfurt.

Martijn Wieling and John Nerbonne ask whether pronunciation distance measures may be used to compare dialect distances in different language areas even when the dialect pronunciations have been transcribed rather differently. Their article concerns primarily perception since phonetic transcriptions of the sort dialectological field workers produce reflect perception of speech, not its production or attitudes toward it. The work is motivated by the wish to compare distributions of linguistic variation in different language areas, e.g. the distribution of the Dutch (language differences) of the Low Countries to the German of Bavaria, or the English of the U.S. eastern seaboard to

the Catalan of north-eastern Spain and Andorra. This would be straightforward if one restricted one's attention to lexical differences or other categorical differences, but the problem is more challenging when one wishes to compare pronunciations in the form of phonetic transcriptions. The authors demonstrate that the degree of phonetic detail influences the pronunciation distance measures and set out to develop a procedure to control for it. Wieling and Nerbonne suggest an iterative process where phonetic segments that play little role in distinguishing pronunciations are mapped, one by one, to a nearest neighbor. As the authors note, the procedure is also interesting when dialect atlas collections vary systematically in the degree of detail in their transcriptions.

## **Acknowledgments**

We are most grateful to the authors for entrusting their papers to us, and to the anonymous referees, for their important criticisms. The workshop was hosted by the University of Leuven, and organized in co-operation with the University of Groningen and the Radboud University, Nijmegen, who were collaborating on the project investigating the interaction of intelligibility, attitude and linguistic distance, sponsored by the Flemish-Dutch committee, which was, in turn, a collaboration between the Dutch and Flemish national science foundations (NWO and FWO). We appreciate their financial support of the workshop, which provided the impetus for this collection.

## **References**

- VAN BEZOOIJEN, Renée (2001) "Poldernederlands. Hoe kijken vrouwen ertegenaan?", *Nederlandse Taalkunde* 6 (4), 257-271.
- GEERAERTS, Dirk, Stefan GRONDELAERS & Dirk SPEELMAN (1999) *Convergentie en Divergentie in de Nederlandse Woordenschat: een Onderzoek naar kleding- en voetbalnamen*, Amsterdam: Meertens Institute.
- GOOSKENS, Charlotte (2007) "The contribution of linguistic factors to the intelligibility of closely related languages", *Journal of Multilingual and Multicultural Development*, 28 (6), 445-467.

- GRONDELAERS, Stefan, Roeland VAN HOUT & Mieke STEEGS (2010) "Evaluating regional accent variation in standard Dutch", *Journal of Language and Social Psychology*, 29, 101-116.
- HEERINGA, Wilbert & John NERBONNE (2001) "Dialect areas and dialect continua", *Language Variation and Change*, 13(3), 375-400.
- VAN HOUT, Roeland & Hans VAN DE VELDE (eds.) (2001) *R-atics. Sociolinguistic, Phonetic and Phonological Characteristics of /r/*, Etudes & Travaux 4, Brussels: Editions Université Libre de Bruxelles.
- IMPE, Leen (2010) *Mutual Intelligibility of National and Regional Varieties of Dutch in the Low Countries*, Ph.D. Diss., University of Leuven.
- LABOV, William (1994) *Principles of Linguistic Changes: Internal Factors*, Blackwell: Oxford.
- NIEDZIELSKI, Nancy (1999) "The effect of social information on the perception of sociolinguistic variables", *Journal of Language and Social Psychology*, 18, 62-85.
- PRESTON, Dennis R. (ed.) (1999) *Handbook of Perceptual Dialectology*, Volume 1, Amsterdam/Philadelphia: Benjamins.
- PRESTON, Dennis R. (2010) "Perceptual dialectology: Mapping the geolinguistic spaces in your brain", in Alfred LAMELI, Ronald KEHREIN & Stephan RABANUS (eds.), *Mapping language (Language and space: An international handbook of language variation, volume 2)*, Berlin: Mouton de Gruyter.