

## Dagprogramma

|                   |       |       |                                                                                                                                                           |
|-------------------|-------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Ontvangst</i>  | 10:00 | 10:25 | Met koffie en thee                                                                                                                                        |
| Opening           | 10:25 | 10:30 | <i>Willemijn Heeren</i>                                                                                                                                   |
| KEYNOTE           | 10:30 | 11:15 | <i>Jo Verhoeven:</i><br>Phonetic characteristics of Foreign Accent Syndrome                                                                               |
| <i>Pauze</i>      | 11:15 | 11:30 | Met koffie en thee                                                                                                                                        |
|                   | 11:30 | 11:50 | <i>Henk van den Heuvel and Nelleke Oostdijk:</i><br>Falling silent, lost for words ... Tracing personal involvement in interviews with Dutch war veterans |
| Sessie 1          | 11:50 | 12:10 | <i>Xaver Koch and Esther Janse:</i><br>Individual predictors of articulatory precision in sibilant production across the adult life span                  |
|                   | 12:10 | 12:30 | <i>Sieb Nootboom and Hugo Quené:</i><br>Word onset effect in interactional speech errors: spontaneous speech versus elicitation                           |
| ALV               | 12:30 | 12:40 | Agenda zie p. 16                                                                                                                                          |
| <i>Lunchpauze</i> | 12:40 | 14:00 | Op eigen gelegenheid, locaties zie p. 19                                                                                                                  |
|                   | 14:00 | 14:20 | <i>Heike Schoormann, Wilbert Heeringa and Jörg Peters:</i><br>Cross-linguistic variation in Saterland Frisian vowels                                      |
|                   | 14:20 | 14:40 | <i>Remco Knooihuizen:</i><br>Second-dialect performance on TV: Accuracy and acceptability                                                                 |
| Sessie 2          | 14:40 | 15:00 | <i>Wouter Broos:</i><br>Reduction of word final /st/-clusters in monosyllabic and compound nouns in Dutch dialects                                        |
|                   | 15:00 | 15:20 | <i>Natasha Warner:</i><br>The aerodynamic puzzle of Scottish Gaelic nasalized fricatives                                                                  |
| <i>Pauze</i>      | 15:20 | 15:40 | Met koffie en thee                                                                                                                                        |
|                   | 15:40 | 16:00 | <i>Wander Lowie:</i><br>Variability in L2 phonology: a plea for a dynamic, process-based methodology                                                      |
|                   | 16:00 | 16:20 | <i>Ellen Aalders en Mirjam Ernestus:</i><br>Hoe moedertaalsprekers en tweedetaalleerders woorden met gereduceerde sjwa herkennen.                         |
| Sessie 3          | 16:20 | 16:40 | <i>Hugo Quené en Rosemary Orr:</i><br>Ritmische convergentie in T1 en T2 Engels                                                                           |
|                   | 16:40 | 17:00 | <i>Willemijn Heeren, David van der Vloed en Jos Vermeulen:</i><br>Een exploratief onderzoek naar lange-termijn formanten in tweetalige sprekers           |
| <i>Borrel</i>     | 17:00 | 18:00 |                                                                                                                                                           |

# De Dag van de Fonetiek

Over onderzoek naar spraak en spraaktechnologie

<http://www.fon.hum.uva.nl/FonetischeVereniging>

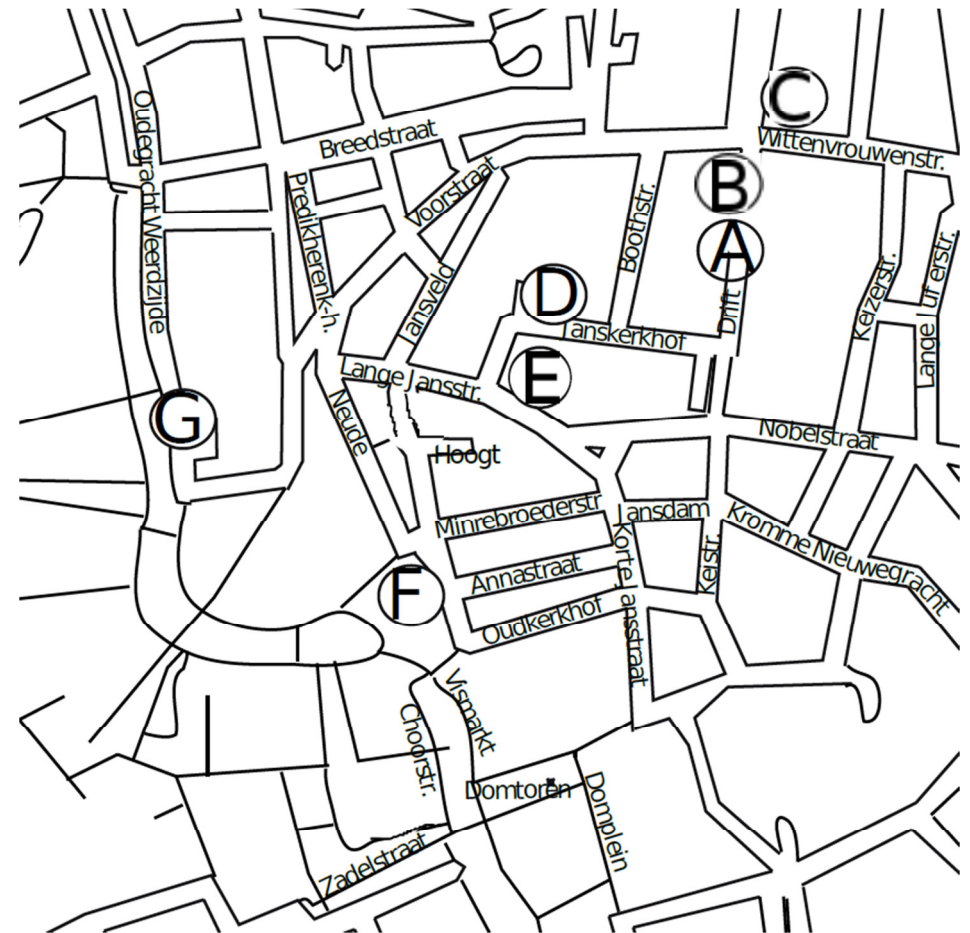
Woensdag 17 december 2014  
in de Sweelinckzaal  
Drift 21  
te Utrecht

Georganiseerd door de  
*Nederlandse Vereniging voor Fonetische Wetenschappen*

Deelname Gratis



## Locaties voor lunch op eigen gelegenheid



- |                                    |                             |                                              |
|------------------------------------|-----------------------------|----------------------------------------------|
| <b>A</b> Sweelinckzaal             | Drift 21                    | <i>Dag van de Fonetiek</i>                   |
| <b>B</b> Kantine Univ.-bibliotheek | na ingang bibliotheek links |                                              |
| <b>C</b> De Bakkerswinkel          | Wittevrouwenstraat 2        | dichtbij, niet bijzonder snel                |
| <b>D</b> Hofman Janskerkhof 17     |                             |                                              |
| <b>E</b> Broodje Carlo             | Janskerkhof                 | buiten, voor ingang Janskerk                 |
| <b>F</b> De Burgemeester           | Korte Minrebroederstraat 7  | verder weg                                   |
| <b>G</b> Broodje Mario             | Oudegracht 130              | buiten, verder weg, wereldberoemd in Utrecht |

10.30-11.15

## Phonetic characteristics of Foreign Accent Syndrome

Jo Verhoeven

*City University London / Universiteit Antwerpen*

Foreign Accent Syndrome is a relatively rare motor speech disorder in which the speech accent of a patient is perceived as a foreign accent (e.g. a native speaker of English who develops a French accent) or as a different regional accent (a native speaker of Southern British English who develops a Northern English accent). The emergence of this foreign accent is often associated with damage to the central nervous system (neurogenic FAS), but recently there has been increased recognition that psychogenic factors may play a significant role (psychogenic FAS).

This presentation will present the most important phonetic characteristics of Foreign Accent Syndrome on the basis of an exhaustive analysis of all professional publications on Foreign Accent Syndrome since 1907, i.e. the year in which the first Foreign Accent Syndrome patient was described by the French Neurologist Pierre Marie. All the phonetic errors reported in these publications were exhaustively inventorized and classified according to the different phonetic mechanisms involved. At the segmental level, errors were classified in terms of initiation, phonetics, articulation and co-ordination. At the suprasegmental level, all statements about intonation, tone, rhythm and segment duration were inventorized and analyzed.

From the analysis, it is clear that the speech of Foreign Accent Syndrome speakers shows errors at both the segmental and suprasegmental level, with deviations in intonation topping the list. Segmental errors are generally consistent with a picture in which the speech of Foreign Accent Syndrome patients shows tendencies towards a tenser articulatory setting and a simplification of of speech sound articulation to reduce articulatory complexity. Although errors at the suprasegmental level are reported very frequently, there is little indication that these truly reflect deviant prosody: they may well represent a communicative strategy of the FAS speaker to stay in control of the speaking turn.

### **Over de spreker:**

Jo Verhoeven is Universitair Hoofddocent Taalkunde aan de Universiteit Antwerpen en Reader in Phonetics aan City University London. Hoewel hij een erg ruime interesse heeft in de fonetiek in het algemeen, is zijn onderzoek zich de laatste jaren steeds meer gaan richten op de spraakpathologie.

11.30-11.50

## **Falling silent, lost for words ... Tracing personal involvement in interviews with Dutch war veterans**

Henk van den Heuvel and Nelleke Oostdijk

*CLS/CLST, Radboud Universiteit, Nijmegen*

In sources used in oral history research (such as interviews with eye witnesses), passages where the degree of personal emotional involvement is found to be high can be of particular interest, as these may give insight into how historical events were experienced, and what moral dilemmas and psychological or religious struggles were encountered. The length of speech pauses are important paralinguistics cues reflecting the emotional state of a speaker (Tisljár-Szabo & Pléh, 2014) and these can be realised by silent pauses, filled pauses and word lengthening (Van Donzel & Koopmans-van Beinum, 1996).

In a pilot study involving a large corpus of interview recordings with Dutch war veterans, we have investigated if it is possible to develop a method for automatically identifying those passages where the degree of personal emotional involvement is high. The method is based on the automatic detection of exceptionally large silences and filled pause segments (using Automatic Speech Recognition), and cues taken from specific n-grams. The first results appear to be encouraging enough for further elaboration of the method.



Ik word lid van de  
*Nederlandse Vereniging voor Fonetische Wetenschappen*

achternaam:

voorletter(s), evt. titel:

afdeling/vakgroep:

postadres:

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De contributie bedraagt 10 euro per jaar.

Aanmelden als lid bij:

Anja Schüppert, secretaris NVFW

Center for Language and Cognition Groningen, Rijksuniversiteit Groningen

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Hier kunt u ook terecht voor meer informatie over de *Nederlandse Vereniging voor Fonetische Wetenschappen*.

## AGENDA



### Algemene Ledenvergadering van de *Nederlandse Vereniging voor Fonetische Wetenschappen*

17 december 2014  
12.30-12.40 uur

Sweelinckzaal, Drift 21, Utrecht

#### 1. Opening

#### 2. Mededelingen

#### 3. Financiën

De balans over 2013 zal voor inzage beschikbaar zijn. Vanaf 2014 neemt Mirjam de Jonge het penningmeesterschap over van Willemijn Heeren.

#### 4. Bestuursamenstelling

- Van de volgende bestuursleden verlopen de termijnen in december 2014: Mirjam de Jonge (Universiteit van Amsterdam), Esther Janse, (Radboud University Nijmegen / MPI Psycholinguïstiek), Marie Postma (Universiteit Tilburg).
- Van hen stellen de volgende bestuursleden zich herkiesbaar: Mirjam de Jonge, Esther Janse.
- Vanwege het vertrek van een bestuurslid, wil het bestuur graag versterking van een nieuw lid.
- Andere leden die zich voor het bestuur verkiesbaar willen stellen worden verzocht dit voor aanvang van de vergadering kenbaar te maken bij de secretaris van de vereniging (a.schueppert@rug.nl).

#### 5. Sluitting

11.50-12.10

### **Individual predictors of articulatory precision in sibilant production across the adult life span**

Xaver Koch and Esther Janse

*Radboud University Nijmegen*

Whereas there has been a considerable amount of research on cognitive predictors for language comprehension ability, very little is known about individual differences in spoken language production. While links have been found between individuals' production patterns and their perceptual category boundaries, it is unclear whether and how cognitive and linguistic abilities affect articulatory precision.

This study investigates articulatory precision in a large sample (n=100) of younger, middle-aged and older Dutch adults as indexed by center of gravity measures (spectral moments) for word-initial sibilants ([ʃ], [s]). The research question is whether individuals' production precision is related to measures of a test battery (e.g., hearing acuity, memory, processing speed, vocabulary) and/or to speech perception performance quantified as performance in a preceding listening study. We also investigate effects of age, sex, education level and regional variation on articulatory precision and include speech rate effects in our statistical modelling. Participants were asked to read aloud a carrier sentence containing target words starting with either [ʃ] or [s] followed by one of five different vowels. Analyses are based on differences in center of gravity measures for the two sibilants as well as on centroid distance measures for the vowel contexts. Results will be discussed.

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Voorstellen voor agendapunten kunt u schriftelijk, of per e-mail, indienen bij de secretaris. Voor kandidaatstelling voor het bestuur kunt u ook contact opnemen met de secretaris. Voor informatie over kandidaatstelling en schriftelijk of bij volmacht stemmen voor de bestuursverkiezingen verwijzen wij u naar het Huishoudelijk Regelement (zie: <http://www.fon.hum.uva.nl/FonetischeVereniging/Vereniging/Reglement.txt>).

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12.10-12.30

## **Word onset effect in interactional speech errors: spontaneous speech versus elicitation**

Sieb Nooteboom and Hugo Quené

*UiL OTS, Utrecht University*

Interactional speech errors are speech errors that have an obvious source in the immediate environment. It has been observed that segmental interactional speech errors are more frequent in word onsets than in other positions. Earlier we have shown that in spontaneous speech this so-called "word onset effect" in interactional errors in spontaneous speech may be fully explained by the number of opportunities segments in different positions in the word have for interaction with other segments in the immediate environment. However, there is experimental evidence for a real word onset effect in elicited interactional speech errors.

We will report a tongue twister experiment set up to investigate interactional substitutions of consonants under different elicitation conditions. Results show a real and considerable word-onset effect if the interacting consonants share both word-onset position and pre-stress position as compared to a condition in which they share a word medial position plus pre-stress position. However, when the interacting consonants share neither position in the word nor pre-stress position, error frequency is completely determined by numbers of opportunities. We conclude that the word onset effect is limited to experiments that successfully elicit interactions by selective activation of segments.

16.40-17.00

## Een exploratief onderzoek naar lange-termijn formanten in tweetalige sprekers

Willemijn Heeren<sup>1</sup>, David van der Vloed<sup>2</sup> en Jos Vermeulen<sup>2</sup>

<sup>1</sup>LUCL, Universiteit Leiden, <sup>2</sup>Nederlands Forensisch Instituut

Lange-termijn formanten (LTFs), d.w.z. gemiddelden van formantmetingen (F1, F2, F3) van vocalen in lange fragmenten, worden gezien als een bruikbaar feature in forensische sprekervergelijking (vb. Nolan and Grigoras, 2005; Gold e.a., 2013), omdat ze eigenschappen van de supralaryngale holten van een specifieke spreker reflecteren. LTFs zouden onafhankelijk zijn van individuele segmenten (Nolan and Grigoras, 2005) en talen (Jessen, 2010). Maar er is meer onderzoek nodig om deze laatste claim te valideren, o.a. omdat het aantal onderzochte taalcombinaties klein is, en verschillende spreekstijlen wel degelijk een invloed hebben op LTFs (Moos, 2010). In dit exploratieve onderzoek wordt hiertoe een eerste stap gezet. Aan de hand van forensisch getapt telefoonmateriaal (Van der Vloed et al., 2014) is bekeken in hoeverre LTFs vergelijkbaar zijn tussen talen en binnen sprekers in een groep van twaalf bilinguale sprekers van het Nederlands en het Turks. De resultaten duiden erop dat LTFs vergelijkbaar zijn tussen talen, en dat ze meer vergelijkbaar zijn binnen sprekers dan tussen sprekers. Dit ondersteunt de bruikbaarheid ervan voor forensische sprekervergelijking.

### Referenties

- Gold, E., French, P. and Harrison, P. (2013). Examining long-term formant distributions as a discriminant in forensic speaker comparisons under a likelihood ratio framework. *Proceedings of Meetings on Acoustics*, Vol. 19.
- Jessen, M. (2010). *Workshop Langzeitformantenanalyse*. BKA, Wiesbaden, 28 April 2010.
- Moos, A. (2010). Long-term formant distribution as a measure of speaker characteristics in read and spontaneous speech. *The Phonetician* 101, 7–24.
- Nolan, F. and Grigoras, C. (2005). A case for formant analysis in forensic speaker identification. *Journal of Speech, Language and the Law* 12, 143–173.
- Van der Vloed, D. L., Bouten, J. S. and Van Leeuwen, D.A. (2014). NFI-FRITS: A forensic speaker recognition database and some first experiments. *Proceedings of Odyssey Speaker and Language Recognition Workshop 2014*, Joensuu, Finland, June 16-19, 2014, pp. 6-13.

14.00-14.20

## Cross-linguistic variation in Saterland Frisian vowels

Heike Schoormann, Wilbert Heeringa and Jörg Peters

*Institute of German Studies, Oldenburg University, Oldenburg, Germany*

This study investigates the vowel space of trilingual speakers of Saterland Frisian, Low German, and High German. The three vowel systems show differences in the number of distinct categories but share the majority of vowel qualities. To examine whether the dispersion and size of the vowel space correlates with the number of vowel categories to enhance perceptual distance (c.f. *Theory of Adaptive Dispersion*; Lindblom, 1986; Liljencrants & Lindblom, 1972) speakers were instructed to read vowels of all three languages in a /hVt/ frame.

Measurements of mid-vowel F1 and F2 and durations of monophthongs did neither reveal cross-linguistic differences in the size of the vowel spaces nor a positive correlation of dispersion with inventory size. Furthermore, Saterland Frisian and Low German monophthongs were found to be merged with respect to formant frequencies and durations. Only High German showed systematic differences in the phonetic realization of corresponding vowels. These results suggest that the trilingual subjects may use the same base-of-articulation (cf. Bradlow, 1995) for Saterland Frisian and Low German but not for High German.

### References

- Bradlow, A., (1995). A comparative acoustic study of English and Spanish vowels. *Journal of the Acoustic Society of America*, Vol. 97 (3), 1916-1924.
- Liljencrants, J. & Lindblom, B. (1972). Numerical simulations of vowel quality systems: The role of perceptual contrast. *Language*, 48, 839-862.
- Lindblom, B. (1986). Phonetic universals in vowel system“. In: Ohala, J. & Jaeger, J. (eds.), *Experimental Phonology*. Orlando: Academic Press, 13-44.

14.20-14.40

## Second-dialect performance on TV: Accuracy and acceptability

Remco Knooihuizen

*University of Groningen*

Performance in a second dialect (Trudgill, 1983) is thought not to give a realistic view of second-dialect acquisition (Chambers, 1992; Siegel, 2010). An analysis of performance, however, excludes factors as motivation and analytical ability, and allows for an exclusive focus on the extent to which speakers can modify their behaviour.

This paper focuses on the short vowel systems in the American English performance of three Australian actors in the television series *Camp* (2013). There are clear phonological and phonetic differences between Australian and American English, necessitating an adaptation of accent. Acoustic analysis shows that, for the KIT /ɪ/, DRESS /ɛ/ and TRAP /æ/ vowels, the actors use sufficiently lowered realisations to fit an American model, but at the expense of greater variability in their second dialect compared to their first. This is in line with findings from second-language acquisition (van Dijk et al., 2011). Performance for the STRUT /ʌ/ and LOT /ɑ/ vowels is less on target. As the actors' American English accents received mixed reviews on internet fora, the acoustic analysis will be contrasted with a foreign-accent rating (underway at the time of abstract submission).

### References

- Chambers, J. K. 1992. Dialect acquisition. *Language* 68(4), 673–705.
- Van Dijk, Marijn, Marjolijn Verspoor & Wander Lowie. 2011. Variability and DST. In Marjolijn Verspoor, Kees de Bot & Wander Lowie (eds.), *A dynamic approach to second language development: methods and techniques*, 55–84. Amsterdam: Benjamins.
- Siegel, Jeff. 2010. *Second dialect acquisition*. Cambridge: Cambridge University Press.
- Trudgill, Peter. 1983. Acts of conflicting identity: the sociolinguistics of British pop-song pronunciation. In *On dialect: social and geographical perspectives*, 141–160. Oxford: Blackwell.

16.20-16.40

## Ritmische convergentie in T1- en T2-Engels

Hugo Quené and Rosemary Orr

*UiL OTS, Utrecht University*

Als T1- en T2-sprekers Engels als lingua franca gebruiken, dan verwachten we dat hun accenten convergeren, en dat ook de ritmische patronen zullen convergeren. Deze ritmische convergentie is onderzocht met behulp van een longitudinaal corpus (27 gevorderde T2-sprekers van het Engels, 8 T1-sprekers). Spraakritme is hier geoperationaliseerd als de piekfrequentie in het spectrum van het intensiteitsverloop, genormaliseerd voor spreeknelheid.

Onze resultaten laten zien dat (1) de variantie tussen sprekers in ritme mettertijd afneemt, vooral tussen de eerste en tweede geluidsopname. (2) Ritme verschilt significant tussen mannen en vrouwen, maar alleen voor de T1-sprekers. (3) De ritme-maat wordt enigszins beïnvloed door spreektempo, omdat zwakke syllaben sterker worden gereduceerd bij een sneller tempo, maar ook dit effect treedt alleen op bij de T1-sprekers.

Deze bevindingen suggereren dat (a) ritmische convergentie inderdaad optreedt, terwijl (b) tegelijkertijd de subtiele effecten van geslacht en metrische structuur niet goed verworven worden door de gevorderde T2-sprekers.



16.00-16.20

## Hoe moedertaalsprekers en tweedetaalleerders woorden met gereduceerde sjwa herkennen.

Ellen Aalders<sup>1</sup> en Mirjam Ernestus<sup>1,2</sup>

<sup>1</sup>Radboud Universiteit Nijmegen, <sup>2</sup>Max Planck Instituut Nijmegen

Door sjwa-reductie klinkt een Engels woord zoals *support* vaak als *sport*. Wij onderzochten hoe dergelijke uitspraakvarianten geïnterpreteerd worden door drie groepen luisteraars met moedertalen die verschillen in de mate waarin klinkerreductie voorkomt. Engelse en Nederlandse luisteraars hebben veel ervaring met klinkerreductie in hun moedertaal, terwijl Spanjaarden daar nauwelijks ervaring mee hebben. In het Engels kan reductie van sjwa leiden tot heel korte en volledig afwezige sjwa's. In woorden waarin sjwa gevolgd wordt door een stemloze plosief, blijkt de aanwezigheid van die sjwa ook uit de aspiratie op die volgende plosief: de /p/ van *support* verschilt van die van *sport*.

In een decisietaak gaven proefpersonen voor Engelse pseudoworden (bijvoorbeeld *suppol*) aan of ze één of twee lettergrepen hoorden. We manipuleerden (1) de duur van de sjwa (0 tot 48 ms) en (2) de aspiratieduur van de erop volgende /p/ (0 tot 65 ms). De resultaten laten zien dat de Engelse moedertaalsprekers beide details gebruiken bij hun interpretatie. Nederlanders en Spanjaarden waren minder gevoelig voor variatie in aspiratieduur, overeenkomstig het belang van aspiratieduur in hun moedertaal. Spanjaarden hadden een langere sjwa nodig hadden om twee lettergrepen te horen. We concluderen dat moedertaal een effect heeft op hoe luisteraars gereduceerde woorden verstaan.

14.40-15.00

## Reduction of word final /st/-clusters in monosyllabic and compound nouns in Dutch dialects

Wouter Broos

Gent University, Belgium

The main research question of this article was whether different reduced word forms are stored in the mental lexicon of the speaker. This was answered by means of a production experiment where participants coming from Roosendaal and Ede had to read phrases that were presented to them. These phrases contained two nouns, the first ending in the cluster /st/ and the second beginning with a consonant.

Reduced word forms were measured and results show that the effect of dialect were strongly significant with regard to the pronunciation of /s/ ( $F(1, 1022) = 78.399$ ;  $p < .001$ ) and /t/ ( $F(1, 1022) = 736.293$ ;  $p < .001$ ). Specifically, people speaking the dialect of Ede pronounced /t/ in such a way that it added up to a total of 5% of the total word while this was 16% for the people of Roosendaal.

The final experiment contained a lexical decision task and it showed that people from Ede were a lot less accurate when compared to speakers of Roosendaal (41.66% less accurate, to be exact). This means that people from Ede often perceived reduced words as words. We propose a hybrid-model of word recognition.

15.00-15.20

## **The aerodynamic puzzle of Scottish Gaelic nasalized fricatives**

Natasha Warner

*University of Arizona / Max-Planck-Institute for Psycholinguistics, Nijmegen*

Scottish Gaelic is sometimes described as having nasalized fricatives (/ṽ/ distinctively, and [f̃, x̃, h̃] etc. triggered by assimilation). However, there are claims in the phonetic literature that it is not aerodynamically possible to open the velum for nasalization while maintaining frication noise.

We present aerodynamic data from 14 native Scottish Gaelic speakers to determine how the posited nasalized fricatives in this language are realized. Most tokens demonstrate loss of the nasalization distinction, but some productions include nasalization with the consonant realized as an approximant, nasalization of [h̃], nasalization on the vowel preceding the consonant, or sequential frication and nasalization, none of which pose an aerodynamic conflict. A very few tokens do contain nasalization and frication at the same time with a trade-off in airflow.

We also present perceptual evidence showing that Gaelic listeners can hear this distinction significantly better than chance, but not well. Thus, instrumental phonetic data from this language, one of the few in the world described as having nasalized fricatives, confirms that such a distinction is possible, but not through producing strong nasalization concurrently with clear frication noise. Furthermore, although speakers most often neutralize the distinction, when they maintain it they do so through a variety of phonetic mechanisms, even within a single language.

15.40-16.00

## **Variability in L2 phonology: a plea for a dynamic, process-based methodology**

Wander Lowie

*University of Groningen*

Even though the most important questions about the acquisition of (L2) sound systems concern change over time (like the effect of age of onset; acquisition orders, perception vs. production; implicational relationships), most research has investigated the outcomes of phonological development rather than the process itself. I will argue that only a longitudinal, process-based approach can truly inform us about the developmental process. In this paper I will report on two longitudinal case studies of English learners of Dutch.

Using variability analyses and nonlinear time series analyses, several phonetic correlates (Voice Onset Time, vowel formants) were analyzed over time in two tasks: a word naming task and in a shadowing task. Based on previous studies it could be expected that pronunciation accuracy is first approached in shadowing tasks and gradually spreads to more spontaneous production.

The data show variable developmental patterns in the two tasks, and support the idea that variability is not an irrelevant by-product of development, but can be seen as the motor of change. The data also show how process-based analyses will be able to reveal dynamic interactions that would remain concealed in product based approaches.