

SECTION 1 – Required Details (up to 2 pages maximum)

NAME AND CONTACT DETAILS

Professor Ailbhe Ní Chasaide, Centre for Language & Communication Studies, Trinity College, Dublin 2, Ireland. anichsid@tcd.ie, Tel. 896 1348

CAREER PROFILE (Education and Employment)

Ph.D. Experimental Phonetics, University of Wales, Bangor: 1985

M.A. Linguistics, University of Wales, Bangor: 1977

Maîtrise ès Lettres French Literature, Université de Bordeaux, France: 1975 B.A. French/German, University College Galway, Ireland: 1973

Currently Associate Professor in Phonetics, TCD

1998 Fellow TCD

1992-2003 Senior Lecturer in Phonetics, TCD

1979-1992 Lecturer in Phonetics, TCD

1989, 2 months: Guest Researcher, Stockholm University, Sweden

1987, 3 months: Visiting Scientist, M.I.T. Speech Laboratory, Cambridge Mass., USA

1987, 4 months: Visiting Scientist, Haskins Laboratories, New Haven, USA 1987, 5 months: Guest Researcher, Royal Institute of Technology, Stockholm 1982, 3 months: Visiting Research Fellow, Wolfson College, Oxford University

1973/4: Junior Research and Teaching Fellow, French Dept. University College

Galway

1974/5: Lectrice d'Anglais, CES Grand Parc Bordeaux, France

DETAILS OF MOST RELEVANT RESEARCH FUNDING AS LEAD/CO-APPLICANT

CABÓGAÍ II, funded by Foras na Gaeilge (2008-2010) [€338,194]

Multidialect speech synthesis and corpora for Irish

CNGL CSET, funded by SFI (2008-2013) [€286,000]

Next generation localization

CABÓIGÍN I, funded by Foras na Gaeilge (2006-2007) [€101,000]

Development of speech synthesis for Irish

VOCON, funded by HITACHI, Japan (2005-2006) [€42,000]

Voice control in speech synthesis

IRISH PROSODY, funded by Irish Research Council for the Humanities and Social

Sciences (2003-2007). [€113,100]. *Prosody of Irish Dialects: the use of intonation, rhythm, voice quality for linguistic and paralinguistic signalling*

WISPR, funded by EU INTERREG IIIA (2004-2005) [€281,674]

Welsh and Irish Speech Processing Resources

HUMAINE NoE: EU funded Sixth Framework Programme.(2004-2007) [€103,000]

Human-Machine Interaction Network on Emotion

FOCAIL, funded by Forás na Gaeilge.(2002-2003) [€20,000]

Foclóir Canúna Il-mheánach: towards a multi-media electronic pronunciation dictionary of Irish Dialects.

COST 258, EU funded COST action (1997-2001) [€7,600]

The naturalness of synthetic speech.

SPACT, phase 1 and 2, funded by the European Space Agency (1995-1998) [€51,000]

Application of speech recognition/synthesis technology in the MIR space station.

VERIVOX, EU funded LTR working group: programme in Information Technologies (1995-

Sfl science foundation ireland fondulreacht eolaíochta éireann

SFI Principal Investigator Programme

1997) [€15,000]. *Voice variability in speaker verification.*

CABÓG, funded by ACCUTRON, Limerick and Irish-American Foundation (1993-1996) [€23,000]

A development system for Irish text-to-phoneme conversion

SPEECH MAPS, EU funded ESPRIT/BRA (1992-1995) [€54,000]

Sound-to-gesture inversion in speech: recovering the source signal from the speech waveform.

VOX, EU funded ESPRIT/BRA working group (1992-1995) [€15,000]

The analysis and synthesis of speaker characteristics.

ACCOR I & II, EU funded ESPRIT/BRA project, and working group (1989-1995)

[€189,000] *Articulatory-acoustic correlations in coarticulation.*

HISTORY OF MENTORING AND SUPERVISION

PhD: currently 5; completed 3; Masters: currently 0; completed 23 Postdocs: currently 1; past 2

INNOVATION/COMMERCIALISATION ACTIVITY (e.g. invention disclosures, patents, spin-outs)

Development of an Irish text-to speech system, publicly available on the web, under www.abair.ie Note that this system, currently available for the Donegal dialect of Irish, is being extended to cover the other major dialects. This parallel research will be exploited in the Fastnet project.

OTHER INFORMATION AS APPROPRIATE (e.g. invited presentations....)

Personal awards/honours

Government of Ireland Senior Research Fellowship, Irish Research Council for the Humanities and Social Sciences (2003)

Member of Board, Trinity College (elected representative, 2002-2004)

Fellow Trinity College Dublin (elected, 1998)

Treasurer of the International Phonetic Association (elected, 1995-2003)

Vice President of the International Phonetic Association (elected, 1993-1995)

Council member of the International Phonetic Association (elected, 1991-present)

Trinity Trust Award for research at Royal Institute of Technology (KTH), Stockholm (1989)

Fulbright Award for research at M.I.T. and Haskins Laboratories, New Haven (1987)

Swedish Institute Scholarship for research at Royal Institute of Technology, Stockholm (1986)

CNRS (Paris)/ and NBST (Dublin) Award: research visits, French speech laboratories (1985) Research Fellowship, Oxford University (1982)

Research Tenowship, Oxford Oniversity (1702)

University of Wales Studentship (1977-1979)

Scholarship from Irish Linguistics Institute (1975-1977)

Junior Research and Teaching Fellowship, University College Galway (1973-1974))

Invited talks (selection)

ICP, Grenoble; INTERSPEECH, Jeju, Korea; *Speech Prosody*, Nara, Japan; JST/CREST Workshop, Kobe, Japan; Bell Laboratories, New Jersey; University of New York, Binghamton; Haskins Laboratories, New Haven; Stockholm University; University of Copenhagen; University of Lund; CNET, Lannion, France; University of Sussex; University of Edinburgh; Cambridge University.

Reviewer

I have acted as reviewer for several international speech and phonetics journals including: Speech Communication, Journal of Phonetics, Language and Speech, Scandinavian Journal of Logopedics Phoniatics Vocology, and Journal of the International Phonetic Association.



SECTION 2 – Publication Listing (up to three pages maximum)

FULL LIST OF PUBLICATIONS (or up to maximum space allowed)

- *C. Gobl, C. and Ní Chasaide, A. (in press). Voice source variation and its communicative functions. *The Handbook of Phonetic Sciences* (2nd edition), eds. W. J. Hardcastle and J. Laver, Oxford, Blackwell.
- *Yanushevskaya, I., Ní Chasaide, A. and Gobl, C. (2008). Cross-language study of vocal correlates of affective states. *INTERSPEECH* 2008, Brisbane, Australia, 330-333.
- O'Reilly, M., Ní Chasaide, A. and Gobl, C. (2008). Cross-Dialect Irish Prosody: Linguistic Constraints on Fujisaki Modelling. *INTERSPEECH* 2008, Brisbane, Australia, 886-889.
- Yanushevskaya, I., Gobl, C. and Ní Chasaide, A. (2008). Voice quality and loudness in affect perception. *Proc. of the 4th Int. Conf. on Speech Prosody*, Campinas, Brazil.
- Yanushevskaya, I., Tooher, M., Gobl, C., Ní Chasaide, A. (2007). Time- and amplitude-based voice source correlates of emotional portrayals. In A. Paiva, R. Prada, R. W. Picard (Eds.) *Affective Computing and Intelligent Interaction*, Springer, Berlin/Heidelberg, 156-170.
- O'Reilly, M. and Ní Chasaide, A. (2007). Analysis of intonation contours in portrayed emotions using the Fujisaki model. *The 2nd Conference on Affective Computing and Intelligent Interaction. Proceedings of the Doctoral Consortium*, Lisbon, Portugal, 17-24.
- Dalton, M. & Ní Chasaide, A. (2007). Melodic alignment and micro-dialect variation in Connaught Irish. In C. Gussenhoven & T. Riad (Eds.), Tones and Tunes: Studies in Word and Sentence Prosody, Vol. 2, Mouton de Gruyter, Berlin, 293-315.
- *Dalton, M. and Ní Chasaide, A. (2007). Nuclear accents in four Irish (Gaelic) dialects. *Proc. of the XVIth International Congress of Phonetic Sciences*, Saarbrücken, 965-968.
- Ní Chasaide, A., Wogan, J., Ó Raghallaigh, B., Ní Bhriain, Á., Zoerner, E., Berthelsen, H. and Gobl, C. (2006). Speech Technology for Minority Languages: the Case of Irish (Gaelic). *Proc. INTERSPEECH 2006*, Pittsburgh, 181-184.
- Wogan, J., Ó Raghallaigh, B., Ní Bhriain, Á., Zoerner, E., Berthelsen, H., Ní Chasaide, A. and Gobl, C. (2006). Developing a Spoken Corpus and a Synthesiser for Irish (Gaelic). *Proceedings of the 5th SALTMIL Workshop on Minority Languages*, Genoa, Italy.
- Ní Chasaide, A. and Dalton, M. (2006). Dialect alignment signatures. *Proceedings of the 3rd International Conference on Speech Prosody*, Dresden, Germany, pp. 4, paper OS1-3-263.
- Yanushevskaya, I., Gobl, C. and Ní Chasaide, A. (2006). Mapping Voice to Affect: Japanese listeners. *Proc. of the 3rd Int. Conf. on Speech Prosody*, Dresden, Germany.
- *Dalton, M. and Ní Chasaide, A. (2005). Tonal alignment in Irish Dialects. *Language and Speech*, 48 (4), 441-464.
- *Ní Chasaide, A. and Gobl, C. (2005). On the relationship between phonatory quality and affect. In W. J. Hardcastle and J. Mackenzie Beck (eds.) *A Figure of Speech: a Festschrift for John Laver*, Lawrence Erlbaum, 323-346.
- Yanushevskaya, I., Gobl, C. and Ní Chasaide, A. (2005). Voice quality and f0 cues for affect expression: implications for synthesis. *Proc. INTERSPEECH* 2005, Lisbon, 1849-1852.
- Dalton, M. and Ní Chasaide, A. (2005). Peak timing in two dialects of Connaught Irish. *Proc. INTERSPEECH* 2005, Lisbon, 1377-1380.
- Williams, B., Prys, D. and Ní Chasaide, A. (2005). Creating an ongoing research capability in speech technology for two minority languages: experiences from the WISPR project. *Proc. INTERSPEECH* 2005, Lisbon, 189-192.
- Ní Chasaide, A. and Gobl, C. (2004). Decomposing linguistic and affective components of phonatory quality. *Proc. INTERSPEECH* 2004, Jeju Island, Korea, Vol. 2, pp. 901-904.
- Ní Chasaide, A. and Gobl, C. (2004). Voice quality and f0 in prosody: towards a holistic account. *Proceedings of the 2nd International Conference on Speech Prosody*, Nara, Japan, pp. 189-196.



- Ní Chasaide, A., Dalton, M., Ito, M. and Gobl, C. (2004). Analysing Irish Prosody: a dual linguistic/quantitative approach. *Proc. SALTMIL Workshop at LREC2004*, Lisbon: 60-63.
- Prys, D., Williams, B., Hicks, B., Jones, D., Ní Chasaide, A., Gobl, C., Carson-Berndsen, J., Cummins, F., Ní Chiosáin, M., McKenna, J., Scaife, R. and Uí Dhonnchadha, E. (2004). WISPR: Speech processing resources for Welsh and Irish. *Proc. SALTMIL Workshop at LREC2004*, Lisbon, 68-71.
- Dalton, M. and Ní Chasaide, A. (2003). Modelling intonation in three Irish dialects. *Proc. of the 15th International Congress of Phonetic Sciences*, Barcelona, 1073-1076.
- Ryan, C., Ní Chasaide, A. and Gobl, C. (2003). Voice Quality Variation and the Perception of Affect: Continuous or Categorical? *Proc. 15th Int. Congress of Phonetic Sciences*, Barcelona, 2409-2412.
- Gobl, C. and Ní Chasaide, A. (2003). The role of voice quality in communicating emotion, mood and attitude. *Speech Communication*, 40, 189-212.
- Ní Chasaide, A. and Gobl, C. (2003). Voice quality and expressive speech. *Proc. of the 1st JST/CREST Int. Workshop on Expressive Speech Processing*, Kobe, Japan, 19-28.
- Gobl, C. and Ní Chasaide, A. (2003). Amplitude-based source parameters for measuring voice quality Proceedings of the ISCA Tutorial and Research Workshop VOQUAL'03 on Voice Quality: Functions, Analysis and Synthesis, Geneva, 151-156.
- Fitzpatrick, L. and Ní Chasaide, A. (2002). Estimating lingual constriction location in high vowels: a comparison of EMA and EPG based measures. *J. of Phonetics*, 30, 397-415.
- Gobl, C., Bennett, E. and Ní Chasaide, A. (2002). Expressive synthesis: how crucial is voice quality. *IEEE Workshop on Speech Synthesis*, Santa Monica, California, paper 52, 1-4.
- Ní Chasaide, A. and Gobl, C. (2002). Voice Quality and the Synthesis of Affect. In Keller, et al. (Eds.) *Improvements in Speech Synthesis*, Wiley & Sons, 252-263.
- Gobl, C. and Ní Chasaide, A. (2002). Dynamics of the Glottal Source Signal: Implications for Naturalness in Speech Synthesis. In E. Keller, G. Bailly, A. Monaghan, J. Terken and M. Huckvale (Eds.) *Improvements in Speech Synthesis*, Wiley and Sons, 273-283.
- Ní Chasaide, A. and Gobl, C. (2000). Voice quality variation: analysis and perception of affect. *Speech and Signals Aspects of Speech Synthesis and Automatic Speech Recognition*, ed. W. Sendlmeier, Wissenschaftliche Buchhandlung Theo Hector, Frankfurt am Main, pp. 141-155.
- Fitzpatrick, L. and Ní Chasaide, A. (2000). Inferring tongue articulation from simultaneous EMA & EPG: complementary and conflicting data. *Proc. of the 5th Seminar on Speech Production: Models and Data*, Ludwig-Maximillians-Universität, München, pp. 201-204.
- Gobl, C. and Ní Chasaide, A. (2000). Testing affective correlates of voice quality through analysis and resynthesis. In R. Cowie, E. Douglas-Cowie and M. Schröder (Eds.) *Proc. ISCA Workshop on Speech and Emotion: A Conceptual Framework for Research*. Queen's University, Belfast, 178-183.
- Ní Chasaide, A. (1999). Irish. *Handbook of the International Phonetic Association: a guide to the use of the international phonetic alphabet*, Cambridge University Press, 111-116.
- Gobl, C. and Ní Chasaide, A. (1999). Techniques for analysing the voice source. In W. J. Hardcastle and N. Hewlett (Eds.) *Coarticulation: Theory, Data and Techniques*, Cambridge University Press, Cambridge, 300-20.
- Gobl, C. and Ní Chasaide, A. (1999). Voice source variation in the vowel as a function of consonantal context. In W. J. Hardcastle and N. Hewlett (Eds.) *Coarticulation: Theory, Data and Techniques*, Cambridge University Press, Cambridge, 122-43.
- Gobl, C. and Ní Chasaide, A. (1999). Perceptual correlates of source parameters in breathy voice. *Proceedings of the XIVth International Congress of Phonetic Sciences*, San Francisco, 2437-40.
- Hoole, P., Gobl, C. and Ní Chasaide, A. (1999). Laryngeal coarticulation. Coarticulation:



- Theory, Data and Techniques. In W.J. Hardcastle and N. Hewlett (Eds.) *Coarticulation: Theory, Data and Techniques*, Cambridge University Press, Cambridge, 105-107.
- Hoole, P., Gobl, C. and Ní Chasaide, A. (1999). Techniques for investigating laryngeal articulation. Coarticulation: Theory, Data and Techniques, Coarticulation: Theory, Data and Techniques. In W. J. Hardcastle and N. Hewlett (Eds.) Coarticulation: Theory, Data and Techniques, Cambridge University Press, Cambridge, p. 294.
- Fitzpatrick, L. and Ní Chasaide, A. (1999). Human speaker nomograms using EMA data. Proc. of the XIVth Int. Congress of Phonetic Sciences, San Francisco, 2021-2024.
- Ní Chasaide, A. and C. Gobl, C. (1997). Voice offset characteristics for voiceless fricatives and stops. Journal of the Acoustical Society of America 102, (1997), 3134.
- Ní Chasaide, A. and C. Gobl, C. (1997). Voice source variation. In *The Handbook of Phonetic Sciences*, eds. W. J. Hardcastle and J. Laver, Oxford, Blackwell, pp. 427-461.
- Ní Chasaide, A. and C. Gobl, C. (1995). Illustrations of the IPA: Irish. Journal of the International Phonetic Association, Vol. 25, Issue 2, 34-39.
- Gobl, C., Monahan, P. and Ní Chasaide, A. (1995). Intrinsic voice source characteristics of selected consonants. *Proc. of the XIIIth Int. Congress of Phonetic Sciences*, Stockholm, Vol. 1, 74-77.
- Ní Chasaide, A. and Gobl, C. (1995). Towards acoustic profiles of phonatory qualities. *Proc. of the XIIIth International Congress of Phonetic Sciences*, Stockholm, Vol. 4, 6-13.
- Ní Chasaide, A. and Fitzpatrick, L. (1995). Assimilation of Irish velarised and palatalised stops. *Proc. of the XIIIth Int. Congress of Phonetic Sciences*, Stockholm, Royal Institute of Technology and Stockholm University, 1995, Vol. 1, 334-337.
- Scully, C., Stromberg, K., Horton, D., Monahan, P., Ní Chasaide, A. and Gobl, C. (1995). Analysis and articulatory synthesis of different voicing types. *Proc. of the XIIIth Int. Congress of Phonetic Sciences*, Stockholm, Vol. 2, pp. 482-485.
- Ní Chasaide, A. (1995). Centres of study in Europe: Ireland. In *European Studies in Phonetics and Speech Communication*, eds. G. Bloothooft, V. Hazan, D. Huber and J. Llisterri, OTS publications, Utrecht, 224-227.
- Ní Chasaide, A. and Gobl, C. (1993). Contextual variation of the vowel voice source as a function of adjacent consonants. Language and Speech, 36, Vol. 2-3, 303-330.
- Fitzpatrick, L. and Ní Chasaide, A. (1993). Using EMA, EPG and acoustic data to look at quantal theory: an account of work in progress. *Forschungsberichte des Instituts für Phonetik und Sprachkliche Kommunikation der Universität München*, 31, 229-238.
- Gobl, C. and Ní Chasaide, A. (1992). Acoustic characteristics of voice quality. *Speech Communication*, Vol. 11, pp. 481-490.
- Ní Chasaide, A., Gobl, C. and Monahan, P (1992). A technique for analysing voice quality in pathological and normal speech. *J. of Clinical Speech & Language Studies*, Vol. 2, 1-16.
- Kane, P. and Ní Chasaide, A. (1992). A comparison of the dysphonic and normal voice source. *Journal of Clinical Speech & Language Studies*, Vol. 2, No. 1, pp. 17-29.
- Ní Chasaide, A. and Fealy, G. (1991). Articulatory and acoustic measurements of coarticulation in Irish (Gaelic) stops. *Proc. 12th Int. Congress of Phonetic Sciences*, Aixen-Provence, Vol. 4, 30-33.
- Ní Chasaide, A. and Gobl, C. (1990). Linguistic and paralinguistic variation in the voice source. *Proc. International Conference on Spoken Language Processing*, Kobe, Japan.
- Ní Chasaide, A. (1987). Glottal control of voicelessness and of aspiration. *Proceedings of the 11th International Congress of Phonetic Sciences*, Tallinn, Estonia.
- Ní Chasaide, A. & Ó Dochartaigh, C. (1984). Some durational aspects of preaspiration. *Festschrift in Honour of E. Uldall*, N.U.U., 141-158.
- Ní Chasaide, A. (1979). The laterals of Gaoth Dobhair Irish and Hiberno-English. *Papers in Celtic Phonology*, N.U.U., 54-78.