

Donald James Derrick

Curriculum Vitae

July 19, 2025

New Zealand Institute of Language, Brain & Behaviour
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EDUCATION

- 2011 PhD **University of British Columbia, Vancouver, BC, CA**
Department of Linguistics
- 1997 MA **Dalhousie University, Halifax, NS, CA**
Department of Sociology and Social Anthropology
- 1995 BA **Saint Mary's University, Halifax, NS, CA**
Department of Anthropology

PROFESSIONAL APPOINTMENTS

- 2023- **Sr. Lecturer Above the Bar / Research Fellow**
New Zealand Institute of Language, Brain & Behaviour
University of Canterbury
- 2018-22 **Sr. Lecturer / Research Fellow**
New Zealand Institute of Language, Brain & Behaviour
University of Canterbury
- 2015-18 **Lecturer / Research Fellow**
New Zealand Institute of Language, Brain & Behaviour
University of Canterbury
- 2011-14 **Postdoc**
MARCS Institute, University of Western Sydney (Cathi Best)
New Zealand Institute of Language, Brain & Behaviour
University of Canterbury (Jen Hay)

PUBLICATIONS

Books

Gick, B. W., Wilson, I. L., and Derrick, D. (2013). *Articulatory Phonetics*. Wiley-Blackwell, Malden, Massachusetts

Edited Volume Chapters

Szreder, M., Derrick, D., and Ben-Ammar, C. (2021). Affricate variation in emirati arabic: An exploratory study. In Ntelitheos, D. and Leung, T. T.-C., editors, *Experimental Arabic Linguistics*, Series on Arabic Linguistics 10, 57–81. John Benjamins, Amsterdam

Journal Articles

Weber, N. and Derrick, D. (2025). A phonetic description of káinai blackfoot. *Language Documentation & Conservation*, 19:198–254

Derrick, D., Mayer, C., and Gick, B. (2024). Uniformity in speech: The economy of reuse and adaptation across contexts. *Glossa: a journal of general linguistics*, 9(1):1–35

Derrick, D., Gick, B., and Jermy, M. (2024). Human aeroecology. *Frontiers in Ecology and Evolution*, 12:1–6

Chen, W., Stern, M. C., Whalen, D. H., Derrick, D., Carignan, C., Best, C. T., and Tiede, M. K. (2024). Assessing ultrasound probe stabilization for quantifying speech production contrasts using the Adjustable Laboratory Probe Holder for UltraSound (ALPHUS). *Journal of Phonetics*, 105:101339

Hansmann, D., Derrick, D., and Theys, C. (2023). Hearing, Seeing, and Feeling Speech: The Neurophysiological Correlates of Trimodal Speech Perception. *Frontiers in Human Neuroscience: Speech and Language*, 17:1–11

Szreder, M. and Derrick, D. (2024). Phonological conditioning of affricate variability in emirati arabic. *Journal of the International Phonetic Association*, 54(1):146–164

Derrick, D., Kabaliuk, N., Longworth, L., Pishyar-Dehkordi, P., and Jermy, M. (2022). Speech air flow with and without face masks. *Scientific Reports*, 12(837):1–10

Derrick, D. and Gick, B. (2021). Gait change in tongue movement. *Scientific Reports*, 11(16565):1–14

Ying, J., Shaw, J. A., Carignan, C., Proctor, M., , Derrick, D., and Best, C. T. (2021). Evidence for active control of tongue lateralization in Australian English /l/. *Journal of Phonetics*, 86(101039):1–24

Strycharczuk, P., Derrick, D., and Shaw, J. (2020). Locating de-lateralization in the pathway of sound changes affecting coda /l/. *Journal of the Association for Laboratory*

Phonology, 11(1):1–27

Blue, W. J., Derrick, D., and Blue, C. L. (2020). The impacts of a community-based health education and nutritional support program on birth outcomes among migrant workers in maesot, thailand: A retrospective review. *International Social Science Review*, 96(3):1–23

Shaw, J., Carignan, C., Agostini, T., Mailhammer, R., Harvey, M., and Derrick, D. (2020). Phonological contrast and phonetic variation: The case of velars in Iwaidja. *Language*, 96(3):578–617

Heyne, M., Derrick, D., and Al-Tamimi, J. (2019). Native language influence on brass instrument performance: An application of generalized additive mixed models (GAMMs) to midsagittal ultrasound images of the tongue. *Frontiers in Psychology - Language Sciences*, 10(2597):1–26

Derrick, D., Hansmann, D., and Theys, C. (2019). Tri-modal speech: Audio-visual-tactile integration in speech perception. *Journal of the Acoustical Society of America*, 146(5):3495–3504

Derrick, D., Madappallimattam, J., and Theys, C. (2019). Aero-tactile integration during speech perception: Effect of response and stimulus characteristics on syllable identification. *Journal of the Acoustical Society of America*, 146(3):1605–1614

Derrick, D., Duerr, J., and Kerr, R. (2019). Mask-less oral and nasal audio recording and air flow estimation for speech analysis. *Electronics Letters*, 55(1):12–14

Derrick, D., Bicevskis, K., and Gick, B. (2019). Visual-tactile speech perception and the autism quotient. *Frontiers in Communication - Language Sciences*, 3(61):1–11

Derrick, D., Carignan, C., Chen, W., Shujau, M., and Best, C. T. (2018). Three-dimensional printable ultrasound transducer stabilization system. *Journal of the Acoustical Society of America*, 144(5):EL392–EL398

Heyne, M., Wang, X., Derrick, D., Dorreen, K., and Watson, K. (2018). The articulation of /ɪ/ in New Zealand English. *Journal of the International Phonetic Association*, 1–23

Keough, M., Derrick, D., and Gick, B. (2018). Cross-modal effects on speech perception. *Annual Review of Linguistics*, 10(32):1–18

Keough, M., Taylor, R. C., Derrick, D., Schellenberg, M., and Gick, B. (2017). Sensory integration from an impossible source: Perceiving simulated faces. *Canadian Acoustics*, 45:176–177

Shaw, J. A., Chen, W., Proctor, M. I., and Derrick, D. (2016). Influences of Tone on Vowel Articulation in Mandarin Chinese. *Journal of Speech, Language, and Hearing Research*, 59:S1566–S1574

Bicevskis, K., Derrick, D., and Gick, B. (2016). Visual-tactile integration in speech perception: Evidence for modality neutral speech primitives. *Journal of the Acoustical Society of America*, 140(5):3531–3539

Heyne, M. and Derrick, D. (2016). Visualization techniques for empirical brass

instrument research. *International Trumpet Guild*, 140(4):6–14

Teo, T. K.-Y., Ashley, P. F., and Derrick, D. (2016). Lower first permanent molars: developing better predictors of spontaneous space closure. *The European Journal of Orthodontics*, 1–6

Derrick, D., Stavness, I., and Gick, B. (2015). Three speech sounds, one motor action: Evidence for speech-motor disparity from English flap production. *Journal of the Acoustical Society of America*, 137(3):1493–1502

Heyne, M. and Derrick, D. (2015). Using a radial ultrasound transducer’s virtual origin to compute midsagittal smoothing splines in polar coordinates. *Journal of the Acoustical Society of America*, 138(6):EL509–EL514

Chen, W., Chang, Y., Best, C. T., and Derrick, D. (2015). Super-imposing maxillary and palatal locations for electroarticulometry: A SIMPLE method. *Journal of the Acoustical Society of America*, 138(2):EL161–EL166

Derrick, D. and Gick, B. (2014). Accommodation of end-state comfort reveals subphonemic planning in speech. *Phonetica*, 71(3):183–200

Derrick, D. and Gick, B. (2013). Aerotactile integration from distal skin stimuli. *Multisensory Research*, 26:405–416

Stavness, I., Gick, B., Derrick, D., and Fels, S. (2012). Biomechanical modeling of English /r/ variants. *Journal of the Acoustical Society of America*, 131(5):EL355–EL360

Derrick, D. and Gick, B. (2011). Individual variation in English flaps and taps: A case of categorical phonetics. *Canadian Journal of Linguistics*, 56(3):307–319

Gick, B., Ikegami, Y., and Derrick, D. (2010). The temporal window of audio-tactile integration in speech perception. *Journal of the Acoustical Society of America*, 128(5):EL342–EL346

Derrick, D. and Archambault, D. (2010). Treeform: Explaining and exploring grammar through syntax trees. *Literary and Linguistic Computing*, 25(1):53–66

Gick, B. and Derrick, D. (2009). Aero-tactile integration in speech perception. *Nature*, 462:502–504

Derrick, D., Anderson, P., Gick, B., and Green, S. (2009). Characteristics of air puffs produced in English ‘pa’: Experiments and simulations. *Journal of the Acoustical Society of America*, 125(4):2272–2281

Patents

De Rybel, T. and Derrick, D. (2018). Maskless speech airflow estimation system. *PCT patent number WO 2018/021920 A1*

Derrick, D. and De Rybel, T. (2015). System for audio analysis and perception enhancement. *PCT patent number WO 2015/122785 A1*

Conference Proceedings

- Derrick, D., Jermy, M., and Chen, J. (2025). Isolating fast and slow flows in schlieren video. In *21st International Symposium on Flow Visualization (ISFV21)*, ISFV21–1155, Tokyo, Japan
- Derrick, D., Jermy, M., and Gick, B. (2024). Speech airflow outside the mouth. In Cho, T., Kim, S., Holliday, J., and Lee-Kim, S.-I., editors, *Proceedings of the 19th Conference on Laboratory Phonology*, 107–108, Hanyang Institute for Phonetics and Cognitive Sciences of Language (HIPCS)
- Derrick, D. (2023). Duration and sonority in blackfoot syllable structure. In Skarnitzl, R. and Volín, J., editors, *Proceedings of the 20th International Congress of Phonetic Sciences (ICPhS)*, 1990–1994, Prague, Czech republic. Guarant International
- Keough, M., Derrick, D., Taylor, R. C., Schellenberg, M. H., and Gick, B. (2019). Learning effects in multimodal perception with real and simulated faces. In Calhoun, S., Escudero, P., Tabain, M., and Warren, P., editors, *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019*, 1189–1192, Canberra, Australia. Australian Speech Science and Technology Association Inc
- Derrick, D., Heyne, M., O’Beirne, G., and Hay, J. (2019). Aero-tactile integration in Mandarin. In Calhoun, S., Escudero, P., Tabain, M., and Warren, P., editors, *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019*, 3508–3512, Melbourne, Australia. Australian Speech Science and Technology Association Inc
- Keough, M., Taylor, R. C., Derrick, D., Schellenberg, M., and Gick, B. (2017). Sensory integration from an impossible source: Perceiving simulated faces. *Canadian Acoustics*, 45:176–177
- Ying, J., Carignan, C., Shaw, J. A., Proctor, M. I., Derrick, D., and Best, C. T. (2017). Temporal dynamics of lateral channel formation in /l/: 3D EMA data from Australian English. *Interspeech*, 2978–2982
- Derrick, D., De Rybel, T., and Fiasson, R. (2015). Recording and reproducing speech airflow outside the mouth. *Canadian Acoustics*, 43(3):102–103
- Heyne, M. and Derrick, D. (2015). Trombone players seem to use different tongue positions while playing sustained notes, depending on their native languages. In Ginsborg, J., Lamont, A., Phillips, M., and Bramley, S., editors, *Proceedings of the Ninth Triennial Conference of the European Society for the Cognitive Sciences of Music (ESCOM)*, 1–10, Manchester, UK
- Davis, C., Shaw, J., Proctor, M., Derrick, D., Sherwood, S., and Kim, J. (2015). Examining speech production using masked priming. In *Proceedings of 18th International Congress of Phonetic Sciences (ICPhS)*, 1–5
- Derrick, D., Best, C. T., and Fiasson, R. (2015). Non-metallic ultrasound probe holder for co-collection and co-registration with EMA. In *Proceedings of 18th International Congress of Phonetic Sciences (ICPhS)*, 1–5

- Heyne, M. and Derrick, D. (2015). The influence of tongue position on trombone sound: A likely area of language influence. In *Proceedings of 18th International Congress of Phonetic Sciences (ICPhS)*, 1–5
- Heyne, M. and Derrick, D. (2014). Some initial findings regarding language influence on playing brass instruments. In Hay, J. and Parnell, E., editors, *Proceedings of the 15th Australasian International Speech Science and Technology Conference (SST2014)*, 180–183
- Derrick, D., O’Beirne, G. A., De Rybel, T., and Hay, J. (2014). Aero-tactile integration in fricatives: Converting audio to air flow information for speech perception enhancement. In Li, H. and Ching, P.-C., editors, *Proceedings of the 15th Annual Conference of the International Speech Communication Association (INTERSPEECH 2014)*, 2580–2584, Singapore
- Derrick, D., Fiasson, R., and Best, C. T. (2014). Coordination of tongue tip and body in place differences among English coronal obstruents. In *Proceedings of the 10th International Seminar on Speech Production (ISSP)*, Cologne, Germany
- Derrick, D., De Rybel, T., O’Beirne, G. A., and Hay, J. (2014). Listen with your skin: Aerotak speech perception enhancement system. In *Proceedings of the 15th Annual Conference of the International Speech Communication Association (INTERSPEECH 2014)*, 1484–1485, Singapore
- Shaw, J. A., Chen, W., Proctor, M. I., Derrick, D., and Dakhoul, E. (2014). On the inter-dependence of tonal and vocalic production goals in chinese. In *Proceedings of the 10th International Seminar on Speech Production (ISSP)*
- Shaw, J. A., Tyler, M. D., Kasiopa, B., Ma, Y., Proctor, M., Han, C., Derrick, D., and Burnham, D. (2013). Vowel identity conditions the time course of tone recognition. In *Proceedings of the 14th Annual Conference of the International Speech Communication Association (INTERSPEECH 2013)*, 718–722, Lyon, France
- Derrick, D. and Schultz, B. (2013). Acoustic correlates of flaps and taps in North American English. In *Proceedings of Meetings on Acoustics*, volume 19, 1–5, Montreal, Canada. International Congress on Acoustics
- Stavness, I., Gick, B., Derrick, D., and Fels, S. (2011). Biomechanical modeling of English /r/ variants. In *9th International Seminar on Speech Production*, 211–218
- Derrick, D. and Gick, B. (2010). Two phonological segments, one motor event: Evidence for speech-motor disparity from english flap production. *Canadian Acoustics*, 38(3):128–129
- Derrick, D. and Gick, B. (2010). Full body aero-tactile integration in speech perception. In *Proceedings of the 11th Annual Conference of the International Speech Communication Association (INTERSPEECH 2010)*, 122–125, Makuhari, Chiba, Japan
- Derrick, D. and Gick, B. (2008). Quantitative analysis of subphonemic flap/tap variation in NAE. *Canadian Acoustics*, 36-3:162–163
- Derrick, D. (2007). Syllabification and Blackfoot /s/. In *Proceedings of NWLC 22, SFU*

Working Papers in Linguistics, 62–76, SFU, Burnaby, BC

Derrick, D. (2006). Duration of Blackfoot /s/. a comparison of assibilant, affricate, singleton, geminate and syllabic /s/ in Blackfoot. In *Proceedings of WSCLA 11, UBC Working Papers in Linguistics*, UBC, Vancouver, BC

Research Tools

Derrick, D., Duerr, J., and Kerr, R. (2019). Mask-less oral and nasal audio recording and air flow estimation for speech analysis. *Electronics Letters*, 55(1):12–14

Derrick, D., Carignan, C., Chen, W., Shujau, M., and Best, C. T. (2018). Three-dimensional printable ultrasound transducer stabilization system. *Journal of the Acoustical Society of America*, 144(5):EL392–EL398

Derrick, D. (2006). TreeForm syntax tree drawing software.
sourceforge.net/projects/treeform

Reports

Bender, E., Boynton, J., Derrick, D., Ngai, V., Palmer, A., Soderland, S., Thompson, J., and Whalen, D. (2006). KMIC: Key Morphemes in Context, A Widget among Widgets, Digital Tools workshop in Linguistics: Key Morphemes in Context, A Widget among Widgets, Digital Tools workshop in Linguistics. Technical report, Michigan State University, Lansing, Michigan

GRANTS AND FELLOWSHIPS

2022-2025: Marsden Grant, New Zealand (AI = Mark Jermy, Bryan Gick), “Multi-sensory speech perception and syllable structure”, \$839,000 NZD

2021-2022: Co-funding for “Infection risk model of airborne transmission to facilitate decisions about PPE, ventilation and isolation in shared indoor spaces” - Fisher and Paykel Healthcare, \$20,000 NZD

2020-2022: MBIE Covid Innovation Acceleration Fund, New Zealand (PI = Mark Jermy), “Infection risk model of airborne transmission to facilitate decisions about PPE, ventilation and isolation in shared indoor spaces”, \$589,975 NZD

2014-2016: MBIE Grant, “Smart Ideas” Phase II, New Zealand, “Aero-tactile Enhancements of Speech Perception - Phase 2”, \$1,150,000 NZD

2012-2014: MBIE Grant, “Smart Ideas” Phase I, New Zealand, “Aero-tactile Enhancements of Speech Production”, \$553,436 NZD

2012-2015: Marsden Grant, New Zealand, “Saving energy vs. making yourself understood during speech production”, \$342,348 NZD

2012: MARCS Institute research grant (PI = Jason Shaw), “The time course of tone perception and production”, \$14,591 AUD

AWARDS AND HONORS

2019: Meritorious Poster Award, American Speech-Language-Hearing Association
Theys, C., Derrick, D., and Hansmann, D. (2019). Multimodal speech perception: the relative contribution of visual and tactile information on auditory speech perception. In *Poster in American Speech-Language-Hearing Association Annual Convention (Meritorious Poster Award Winner)*, Orlando, United States

2019: Golden Ticket, American Speech-Language-Hearing Association
Hansmann, D., Derrick, D., and Theys, C. (2019). Hearing, Seeing, and Feeling Speech: The Neurophysiological Correlates of Multimodal Speech Perception. In *Presentation at the American Speech and Hearing Association*, Orlando, Florida, United States.
American Speech-Language-Hearing Convention

2011: Raymond H. Stetson Scholarship in Phonetics and Speech Production (Honourable Mention), Acoustical Society of America

2008: A. G. Bell Student Prize in Speech Communication and Hearing, Canadian Acoustical Association

2006-07: University Graduate Fellowship, University of British Columbia

2003-06: Junior Fellow: Green College, University of British Columbia

2004-05: University Graduate Fellowship, University of British Columbia

1995-96: Dalhousie Fellow, Dalhousie University

1994-95: Joy Estate Trust, St. Mary’s University

1994-95: Achievement Scholarship, St. Mary’s University

INVITED PRESENTATIONS

Invited Workshops/panels

Derrick, D., Jermy, M., and Gick, G. (2024). Speech airflow outside the mouth. In *Workshop at National Tsing-Hua University*, Taiwan

Gick, B. (Moderator) Asadi, S., Bouvier, N.M., & Derrick, D. (Panel). Transmission of airborne pathogens through expiratory activities, Association for the Advancement of Science Annual Meeting (AAAS2022), Feb 19, 2022

Derrick, D. Co-collection and co-registration of speech production ultrasound and articulometry data. Conference, National Tsing Hua University, October 21, 2017

Derrick, D. The Ultrasound machine. College of Humanities and Social Sciences,

Department of Linguistics, United Arab Emirates University, October 10, 2016

Derrick, D. Co-collection and co-registration of speech production ultrasound and articulometry data. Speech Science and Technology Conference, University of Canterbury, Christchurch, December 2, 2014

Invited Talks

Derrick, D. Aero-tactile integration in speech: Effects and limitations. Nanyang Technological University (Singapore), November 16, 2018

Derrick, D. Aero-tactile integration in speech: Effects and limitations. National Tsing Hua University (Taiwan), November 21, 2018

Derrick, D. Applied and Commercial Research in Speech Production and Perception. National Taiwan University, October 16, 2017

Derrick, D. Aero-tactile Speech Perception and Production. Academia Sinica (Taiwan), October 18, 2017

Derrick, D. Aero-tactile speech perception and production. College of Humanities and Social Sciences, Department of Linguistics, United Arab Emirates University, October 26, 2016

Derrick, D. Saving energy vs. making yourself understood during speech production, Interdisciplinary Speech Research Lab, University of British Columbia, May 9, 2016

Derrick, D. Production and perception of complex flap/vowel interactions. College of Humanities and Social Sciences, Department of Linguistics, United Arab Emirates University, October 18, 2016

Derrick, D. Co-collection and co-registration of speech production ultrasound and articulometry data. University of Alberta, Edmonton, Canada, December 14, 2015

Derrick, D. Phonetic constraints on speech: Ultrasound, EMA, and 3D modeling studies. Humboldt-Universität Zu Berlin, September 6, 2014

Derrick, D. Co-collection and co-registration of speech production ultrasound and articulometry data. University of Aizu, Aizuwakamatsu, Japan, July 29, 2014

Derrick, D. Aero-tactile Integration in Speech Perception, Department of Speech-Language Pathology, University of Toronto, June 16, 2010

Derrick, D. Aero-tactile Integration in Speech Perception, Department of Psychology, National University of Singapore, August 10, 2010

Derrick, D. and B. Gick. Tactile speech perception by everyday perceivers. Department of Radiology & Biomedical Imaging. University of California, San Francisco. September 18, 2009

CONFERENCE ACTIVITY

- Derrick, D. and Heyne, M. (2024). R-Sandhi in New Zealand English. In *Linguistic Society of New Zealand Annual Conference*
- Derrick, D. and Pishyar-Dehkordi, P. (2023). Syllabification, sonority theory, and blackfoot. In *The 2023 Annual Conference of the Linguistic Society of New Zealand*, 63, University of Auckland, New Zealand. Language and Society
- Hansmann, D., Derrick, D., and Theys, C. (2023). Multimodal Speech Perception: Hearing, Seeing, and Feeling Speech. In *32nd World Congress of the International Association of Communication Sciences and Disorders*
- Hinchey, S., Newbury, J., Derrick, D., Hansmann, D., and Theys, C. (2023). What's the link between sensory integration and reading comprehension in autistic children? a mobile eeg study. In *Australasian Society for Autism Research (ASfAR) Conference*, Christchurch, NZ
- Hinchey, S., Newbury, J., Derrick, D., Hansmann, D., and Theys, C. (2023). Reading comprehension and sensory integration in autistic children: Eeg study design. In *32nd World Congress of the International Association of Communication Sciences and Disorders 2023*
- Derrick, D. and Gick, B. (2022). Gait change in tongue movement in american and new zealand english. In *8th International Conference on Speech Motor Control*, Groningen, the Netherlands
- Derrick, D. (2022). Human airflow while breathing, speaking, and singing with and without masks. In *Association for the Advancement of Science Annual Meeting (AAAS2022)*
- Hinchey, S., Newbury, J., Derrick, D., Hansmann, D., and Theys, C. (2022). Reading comprehension and sensory integration in autistic children: An eeg study. In *George Abbott Symposium*, Christchurch
- Hinchey, S., Newbury, J., Derrick, D., Hansmann, D., and Theys, C. (2022). Manual icon reading comprehension and sensory integration in autistic children: An eeg study. In *Health Research Society of Canterbury poster expo*, August 11
- Hansmann, D., Derrick, D., and Theys, C. (2019). Hearing, Seeing, and Feeling Speech: The Neurophysiological Correlates of Multimodal Speech Perception. In *Presentation at the American Speech and Hearing Association*, Orlando, Florida, United States. American Speech-Language-Hearing Convention
- Theys, C., Derrick, D., and Hansmann, D. (2019). Multimodal speech perception: the relative contribution of visual and tactile information on auditory speech perception. In *Poster in American Speech-Language-Hearing Association Annual Convention (Meritorious Poster Award Winner)*, Orlando, United States
- Heyne, M., Al-Tamimi, J., and Derrick, D. (2019). Using generalized additive (mixed) models to uncover novel patterns of speech production and account for unknown

- by-group variation. In *Poster in Boston Speech Motor Control Symposium*
- Carignan, C., Shaw, J. A., Agostini, T., Mailhammer, R., Harvey, M., and Derrick, D. (2019). A temporal ultrasound study of lenition in Iwaidja. In *Linguistic Society of America Annual Meeting*, New York City
- Derrick, D., Hansmann, D., Haws, Z., and Theys, C. (2018). Audio-Visual-Tactile integration in speech perception. In *LabPhon 16 - The 16th Conference on Laboratory Phonology, Lisbon, Portugal*, 2
- Shaw, J., Carignan, C., Agostini, T., Mailhammer, R., Harvey, M., and Derrick, D. (2018). Stop, approximant, and timing slot: The changing faces of the velar stop in Iwaidja. *Journal of the Acoustical Society of America*, 144(3):1941
- Strycharczuk, P., Derrick, D., and Shaw, J. (2018). How vocalic is vocalised /l/? Evidence from lateralisation. In *Presented at the 16th conference on Laboratory Phonology (Labphon16)*, Lisbon, Portugal
- Hansmann, D., Theys, C., and Derrick, D. (2018). Hearing, seeing, and feeling speech: A pilot eeg study. In *Proceedings of the 36th International Australasian Winter Conference on Brain Research*, Queenstown, New Zealand
- Derrick, D., O'Beirne, G. A., De Rybel, T., Fiasson, R., and Hay, J. (2016). Effects of speech airflow on 2FC word identification in Mandarin and English. In *Proceedings of the 16th Speech Science and Technology Conference (SST2016)*, 1 *
- Heyne, M., Wang, X., Dorreen, K., Derrick, D., and Watson, K. D. (2016). The articulation of /r/ in New Zealand English. *Journal of the Acoustical Society of America*, 140(4):3225
- Heyne, M., Dorreen, K., Wang, X., Derrick, D., and Watson, K. D. (2016). An ultrasound study of /r/ in new zealand english. In *Linguistic Society of New Zealand Annual Conference (Language in Society)*, Wellington, New Zealand
- Heyne, M. and Derrick, D. (2016). Stylistic variation of sub-phonemic syllabic influences on new zealand english schwa production. In *NWAV 45*, Simon Fraser University
- Derrick, D. and Buerkle, D. (2016). Speech prediction from subphonemic production. In *LabPhon 15 - The 15th Conference on Laboratory Phonology* *
- Derrick, D., O'Beirne, G. A., Gordon, M., De Rybel, T., Fiasson, R., and Hay, J. (2016). Effects of aero-tactile stimuli on continuous speech perception. *Journal of the Acoustical Society of America*, 1
- Heyne, M. and Derrick, D. (2015). Benefits of using polar coordinates for working with ultrasound midsagittal tongue contours. In *169th meeting of the Acoustical Society of America (Poster)*, Pittsburgh, PA
- Heyne, M., Derrick, D., and Hay, J. (2015). An ultrasound study of monophthongs in New Zealand English. In *Talk given at the 46th Annual Conference of the Australian Linguistics Society*, Western Sydney University, Paramatta
- Derrick, D. and Fiasson, R. (2014). Evidence of early motor planning in speech

- production. LabPhon 14 - The 14th Conference on Laboratory Phonology, Tokyo, Japan. Poster *
- Shaw, J. A., Chen, W., Tyler, M., Derrick, D., and Proctor, M. (2014). Perceptual attunement to coarticulation: hearing tone in vowel height. LabPhon 14 - The 14th Conference on Laboratory Phonology, Tokyo, Japan. Poster *
- Teo, T. K. Y., Ashley, P. F., and Derrick, D. (2013). Factors affecting spontaneous space closure after the extraction of first permanent molars. In *National Dental Centre Singapore* *
- Derrick, D. and Gick, B. (2012). Speech rate influences categorical variation of English flaps and taps during normal speech. In *Acoustics week in Hong Kong (2012)*
- Derrick, D. and Gick, B. (2011). Subphonemic planning across syllable, morpheme and word boundaries. Acoustical Society of America, 161st meeting
- Derrick, D. and Gick, B. (2011). Subphonemic planning across syllable and word boundaries. ISSP 2011, poster
- Derrick, D. (2011). Syllable iteration rate influences categorical variation of English flaps during normal speech. In *New Zealand Institute of Language, Brain and Behaviour Annual Workshop (NZILBB)*, Christchurch, New Zealand
- Stavness, I., Gick, B., Derrick, D., and Fels, S. (2011). Biomechanical modeling of English /r/ variants. ISSP 2011, presentation
- Derrick, D. and Gick, B. (2011). Subphonemic planning across syllable, morpheme and word boundaries. *Journal of the Acoustical Society of America*, 129(4):2455
- Derrick, D. and Gick, B. (2010). Two phonological segments, one motor event: Evidence for speech motor disparity from English flap production. Acoustics Week in Canada 2010, presentation
- Derrick, D. and Gick, B. (2010). Planning strategies governing selection of kinematic flap/tap variants in north american english. Ultrafest V, presentation
- Derrick, D. and Gick, B. (2009). End-state comfort governs kinematic variation in english flap/tap sequences. *Journal of the Acoustical Society of America*, 125(4):2569
- Derrick, D. and Gick, B. (2008). Quantitative analysis of subphonemic flap/tap variation in NAE. Acoustics Week in Canada 2008, presentation
- Derrick, D. and Gick, B. (2008). Up-flaps, down-flaps, alveolar taps and post-alveolar taps in American English. ACL-CLA 2008, poster
- Derrick, D. (2006). Blackfoot phonotactics. 22nd North West Linguistics Conference, presentation *
- Derrick, D. (2006). Blackfoot syllabification and 's'. 38th Algonquian Conference, presentation
- Derrick, D. (2006). Blackfoot geminates and affricates. WSCLA 11, poster *

- Derrick, D. (2006). Does VOT distinguish homorganic stops in Blackfoot? 38th Algonquian Conference, poster
- Derrick, D. and Gick, B. (2005). Production quality of /r/ and /l/ liquids among Beijing and non-Beijing Mandarin ESL learners. 149th Meeting of the Acoustical Society of America, poster
- Derrick, D. (2005). Production quality of /r/ and /l/ liquids among Cantonese and Mandarin ESL learners. *Journal of the Acoustical Society of America*, 117(4):Pt. 2:2425
- Vogt, F., Guenther, O., Hannam, A., van dan Doel, K., Lloyd, J., Vihan, L., Chander, R., Lam, J., Wilson, C., Tait, K., Derrick, D., Wilson, I., Jaeger, C., Gick, B., Vatikiotis-Bateson, E., and Fels, S. (2005). ArtiSynth designing a modular 3D articulatory speech synthesizer. *Journal of the Acoustical Society of America*, 117(4):Pt. 2:2542

TEACHING EXPERIENCE

Instructor

2017-18	Instructor: LING 307 : Topics in Phonetics and Phonology	UC
2013	Instructor: UWS 100201: Special Study in Languages and Linguistics	UWS
2011	Instructor: LING 317: Directed studies on Instrumental Phonetics	UBC
2008	Instructor: LING 316: Introduction to Speech Science	UBC
2008	Guest Instructor: AUDI 513: Lecture on Articulatory Phonetics	UBC

Teaching Assistant (Tutor)

2007,09,11	TA: LING 316: Introduction to Speech Science	UBC
2006, 10	TA: LING 100: Introduction to Linguistics	UBC
2009	TA: LSA 302: Articulatory Phonetics	UC Berkeley
2006-07,09	TA: LING 317: Instrumental Phonetics	UBC
2008	TA: LING 317/530B: Instrumental Phonetics	UBC
1995-96	TA: Sociology and Anthropology	Dalhousie

Supervisory Experience

2021-	PhD: Multi-modal speech production	UC	Peiman Pishyar-Dehkordi
2021-	PhD: Multi-sensory EEG	UC	Sarah Hinchey
2014-20	PhD: Articulatory, acoustic and perceptual characteristics of laterals in Lebanese accented English	UWS	Jia Ying
2017-19	PhD: Aero-tactile infant research	UBC	Megan Keough
2014-16	PhD (supervisor): L1 and trombone playing	UC	Matthias Heyne
2017	MSc: Audio-tactile research	UC	Jilcy Madappallimattam
2016-	MSc: Hearing impaired AT integration	UC	Mark Gordon
2015-16	MA: Visual-tactile research	UBC	Katie Bicevskis
2016-17	Postdoc: Systematic A/V Brain review	NZILBB	Doreen Hansmann
2014	Postdoc: Aero-tactile research	NZILBB	Tom De Rybel
2016-17	RA: Aero-tactile research	NZILBB	Matthias Heyne
2015-	RA: Eye-tracking and Ultrasound	UC	Kieran Doreen
2013-	RA: EMA/ultrasound research	NZILBB	Romain Fiasson
2013-14	RA: Aero-tactile research	NZILBB	Kieran Stone
2013	RA: EMA/Ultrasound research	MARCS	Elita Dakhoul, Zeiya Speede
2012-13	RA: Acoustical correlates research	MARCS	Ben Schultz
2010-12	RA: Textbook Illustration	UBC	Andrea Yeung, Wini Murphey Kate Komova, Anna Klenin
2008-09	RA: Phonetics (fullmouth)	UBC	Connor Mayer, Zachary Ng Cathy Lin
2008-09	RA: Phonetics (flaps and taps)	UBC	Aislin Stott
2008	TA: Speech Science	UBC	Aislin Stott
2008	RA: Curriculum building	UBC	Aislin Stott

RESEARCH EXPERIENCE

- 2009-11 **Research Assistant**
University of British Columbia (Bryan Gick)
Aero-tactile, flap kinematics, and MEG research
- 2008 **Research Assistant**
University of British Columbia (Linguistics Department)
Wrote course materials for:
LING 316: Introduction to Speech Science
LING 317: Instrumental Phonetics
- 2007-08 **Research Assistant**
University of British Columbia (Joe Stemberger)
Programmed Psychology Experiments
Conducted over 90 Experiments
- 2004-06 **Research Assistant**
University of British Columbia (Linguistics department)
Technical support
Academic Equipment Fund grant writing/equipment purchase
Interdisciplinary Speech Research Lab equipment maintenance
- 2003-04 **Research Assistant**
University of British Columbia (Human Communications Technology)
Artisynth concepts and tongue model

SERVICE

Service to Profession

- 2019-: Associate Editor: *Phonetica*
- 2020-23: Associate Editor: *Journal of the Acoustical Society of America - Express Letters*
- 2015-19: Sponsorship Chair: International Congress of the Phonetic Sciences (ICPhS 2019), Melbourne, Australia
- 2018: Review committee: 2nd International Symposium on Applied Phonetics (ISAPh 2018)
- 2015: Review committee: International Congress of the Phonetic Sciences (ICPhS 2015)
- 2012: Review committee: *Speech Science and Technology*
- 2006: A/V committee: 38th Algonquian conference, UBC
- 2004: A/V committee: Ultrafest II, Peter Wall Institute, UBC
- Occasional Reviewer: *Biological Sciences*; *Canadian Journal of Linguistics*; *Child Language*; *Current biology*; *Frontiers in Psychology*; *Journal of Experimental*

Psychology; Journal of the International Phonetic Association; Journal of Phonetics; Journal of Second Language Pronunciation; Journal of Speech, Language, and Hearing Research; Journal of the Acoustical Society of America; Laboratory Phonology; Language; Proceedings of the National Academy of Sciences; Proceedings of the Royal Society; Speech Communication

Service to University

2019-: Human Ethics Committee: University of Canterbury

2015: Commercialization advisor (informal): New Zealand Institute of Language, Brain, and Behaviour, University of Canterbury

2013-14: National Ethics Application Form reviewer - scientific review: (Western Sydney University, Australia)

Service to Community

2016: Steering committee: Great Southern Unconference, Christchurch, New Zealand

MEDIA COVERAGE - SELECTED

Founder, Maps of Speech (<https://www.mapsofspeech.com> ,
<https://www.youtube.com/channel/UCUqj36JuFmq1-Q-X3vO6skA>)

Ballance, A. (2015). 'air puffs', speech and mobile phones.

<http://www.radionz.co.nz/national/programmes/ourchangingworld/audio/201766020/'air-puffs',-speech-and-mobile-phones>

Yong, E. (2009). How our skin helps us to listen.

<http://scienceblogs.com/notrocketscience/2009/11/25/how-our-skin-helps-us-to-listen/>

RESEARCH METHODS

Acoustic analysis; Articulatory; Eye-tracking; Electroglottograph; Electropalatograph; Electroencephalograph (experiment design); High-speed video; Mask-less airflow; Nasalance; Pneumotachograph; Programming (Unix tools, Java, JavaScript, Matlab, PERL, PRAAT, Python, R, SQL); Schlieren analysis; Ultrasound; Water-droplet analysis