



ADVANCING INTERDISCIPLINARY RESEARCH IN SINGING

www.airspace.ca UPEI Canada

To AIRS members and friends from the AIRS Director:

As 2012 draws to a close, let us take a moment to reflect on the enormous progress of AIRS, remarkable national and international collaboration of extraordinary scholars, students, community partners from numerous disciplines and walks of life, touched by and touching the miracle of the singing voice. Just 3 ½ years ago AIRS held its first annual meeting at the University of Prince Edward Island. Since then, over 70 researchers in 9 teams have joined in research on singing from the perspectives of development, education, and well-being. The growing knowledge, as reflected in the [AIRS Midterm Report](#) of June, 2012, has been disseminated in many ways, especially at the annual meetings in Seattle, in St. John's Newfoundland, and most recently back at UPEI.

AIRS Holiday Card and 4th Annual Meeting Reflections

Photos of the last Annual Meeting decorate a wonderful [AIRS holiday You-Tube Greeting](#)^{1,2}. Coming from all across Canada, as well as the US, South America, UK, Europe, Africa, and Australia, seasoned professionals, eager students, dedicated recent graduates, and community partners representing many disciplines, cultures, and musics contributed to enlightening academic and singing events. Academic highlights included the workshops on the Quad-cultural Songbook, the AIRS digital library, data sharing, audiovideo recording of singing, and the AIRS Test Battery of Singing Skills. Vocal highlights included the spectacular evening concert, outdoor noon performances on Victoria Row³, and the inspirational grand finale master class with Darryl Edwards at the Confederation Centre for the Arts. Everyone engaged with non-stop enthusiasm from early morning well into the night, making the most of the time together.

Mid-term Review Success

The AIRS Midterm Review by a Committee appointed by the Social Sciences and Humanities Research Council (SSHRC)⁴ resulted in the recommendation to continue funding of the AIRS MCRI through to the full seven years (March 2016, with an automatic extension to continue use of the funds for one further year). That wonderful positive outcome is thanks to the co-operation and contribution of the AIRS faculty, students, partners and staff shone that shone brightly during the Midterm Review, based on the foundation of years of working together productively. With the guidance of their supervisors from the 9 sub-themes, over 120 students who have received support from AIRS, have moved AIRS towards its milestones for the first 3.5 years of the project. These milestones are extended into the second half of the project, but now with a heightened emphasis in two directions (1) toward synergies and cross-fertilization across themes, and (2) the transfer of knowledge to the many sectors of society that singing can benefit: the sectors of education, culture, community, physical and mental health, and international affairs.

¹click on the blue hyperlink, or see December News at www.airspace.ca or copy to your browser <http://www.youtube.com/watch?v=KI6Fc3LYO7o> or see December News at www.airspace.ca

²Put together by AIRS Postdoctoral Fellow, Bing-Yi Pan, in consultation with the AIRS Director

³ thanks to co-operation for the facilities of Music PEI

⁴ Friedemann Sallis (chair), Rita Aeillo, Elizabeth Margulis, and from SSHRC Jean-François Fortin, Terry-Lee McPherson

RESEARCH HIGHLIGHTS BY SUB-THEME SINCE THE MIDTERM REVIEW **(Based primarily on "quarterly" report submissions)**

Theme 1 – Development

Sub-theme 1.1 The relation between Production and Perception in Singing. In addition to the continuing work by Christine Tsang and Laurel Trainor and their international team, Stefanie Boivert (a student of CRC Jonathan Bolduc) has adopted the VAMDA Test Battery for her graduate thesis at Laval University. Simone Falk in Germany is examining the basis of adult ratings of sung and spoken infant-directed material. A study of infant's preference for these materials reveals preference of sung over spoken materials.

Sub-theme 1.2 Multimodal aspects of Singing. The RAVDAS emotional singing and speaking test is being administered world wide with cooperation of many attendees of the AIRS Annual Meeting. Postdoctoral Fellow Steven Livingston, with supervisor Frank Russo, have created the audiovisual examples and have engaged international collaborators for validation purposes. Petra Hauf is measuring eye movements of infants in response to calming lullabies and exciting lullabies (which her team designed) and exciting ID speaking and calming ID speaking, to determine if reactions of infants to lullabies is dependent on the specific nature of the music. Sandra Trehub and her students are also looking at infant preferences for songs and speech of different emotional content.

Sub-theme 1.3, AIRS Test Battery of Singing Skills. A dedicated team of Mayumi Adachi, Helga Gudmundsdottir, Stefanie Stadler Elmer, Beatriz Ilari, and Mike Forrester are finalizing new child version of the AIRS Test Battery of singing skills. Mike and his students have completed a review of longitudinal studies of musical and singing ability. A new music experience questionnaire has been created by Bing-Yi Pan and Annabel Cohen to complement the AIRS-Test Battery of singing skills, for which over 150 persons have been tested in the on-line version. Bing-Yi has also written a methodology paper, soon to be submitted. Esther Mang has created all audiovisual materials for a Cantonese version to be implement early in 2013.

In Estonia, children between the ages of two to six years have led to one MA thesis (by Laura Välja) and two seminar papers (by Ristin Siimer and Anna Stepanova) at the Department of Musicology, Estonian Academy of Music and Theatre. Individual students focused on particular tasks of the battery such as singing 'Brother John', and free musical composition to a picture. Ristin is studying how the responses of participants might be grouped according to two parameters: their conformity to the Western tonal music canon and their degree of spontaneity (which is thought to reflect how implicitly or explicitly knowledge about the Western canon is applied by the participant during the task). Anna will look into whether any differences might be detected in performances of native Russian versus native Estonians.

Beatriz Ilari has completed the analyses of data of the exploratory study on the applications of the AIRS test battery with Brazilian children (aged 6-8). I am hoping to begin data collection, in the U.S. and in Brazil (with the help of Caroline Brendel and Angelita Broock), in the Winter on the new AIRS Test Battery for children. She is currently working on the IRB protocol for this particular study. She has gotten IRB approval for the project on singing and the elderly in Los Angeles, and are currently collecting data. All audio recordings are available for the DL. Helga Gutmondsdottir is also exploring issues of appropriate measurement of children's vocal development using AIRS Test Battery data.

Theme 2 - Education

Sub-theme 2.1 Learning to Sing Naturally. Martha Gabriel and June Countryman (UPEI) are continuing with data collection at both school playgrounds and early childhood centres, examining the informal musicking of children. Students of Patricia Campbell at the University of Washington, Karen Howard, James Morford, and Matt Swanson, are on their way to substantiate some of the 2.1 questions

and issues, especially with regard to a theory of informal acquisition of song and singing skills and the songs/stories of Native American/First Nations elders. They expect that to have three pieces of scholarly writing, on children's singing processes (wide-scope study of facets and factors in the literature), theoretical framework that underscores ways and means of singing naturally, and analysis and discussion of the oral lore (stories and songs) of the Skagit elders.

Sub-theme 2.2 Formal Teaching of Singing. Postdoctoral fellow Liliya Nafikova from the Ukraine is working with Carol Beynon at Western University on choral techniques, and is compiling a review of techniques for teaching singing to children in Russia and the Ukraine, which will be of value as a comparison to American/British techniques. A longitudinal study (under the overall guidance of Darryl Edwards) of the role of voice lessons on development of the singing voice is underway in Toronto and Prince Edward Island. Weekly lessons are being audio or audiovideo recorded for subsequent acoustical (and potentially video motion) analysis.⁵ Jane Ginsborg (Royal Northern College) has initiated a study with her students on the analysis of performance cues, collecting audio data primarily. She has also begun to study the first-year experience of music students in a required choir component. June Countryman continues her data collection with a children's choir with the intent of writing about formal group singing instruction.

Sub-theme 2.3 Using Singing to Teach. Nathalie Henrich (France) with student Sandra Cornaz have presented workshops on improving phonetic second language acquisition with singing-voice tasks. They are currently working on the statistical analysis of a perceptual-test database. The objectives are to study how the use of singing voice may modify the perception of a vowel.

Henrietta Lempert (University of Toronto) exploring the role of singing in the learning of an artificial language reports that data collection for the overt singing vs overt speaking conditions is nearly complete. She and her students have enough data to arrive at conclusions regarding gender. The audiation phase (auditory imagery) is expected to begin in January. Concurrently, her team has completed constructing materials using a natural language (Korean) rather than artificial language which will be conducted along with the artificial language audiation study. The design and research questions are identical to the artificial language phase except for the language.

Theme 3 Well-being

Sub-theme 3.1 Singing and Cross-Cultural Understanding Larry O'Farrell (Queen's University UNESCO Chair in Arts and Learning) reports on the study of the impact of a culture-bearer on the intercultural understanding of members of an adult community choir: A case study conducted in collaboration with Dr. Ben Bolden. Data collection is almost complete with final interviews being arranged and analysis to begin in December.

Arla Good (Ryerson, supervisor Frank Russo) spent the fall in the Yukon in a project that brought native song and dance to aboriginal students. Hear her [CBC interview](#) that affirms the rewards to both the students and to the research. Arla has been also a key assistant in the Quad-cultural songbook project, teaching the songs of 4 cultures (including Canadian) to Grade V students in Toronto, last year.

The multicultural choir at UPEI has continued to meet weekly (leadership Bing-Yi Pan and Lucy Chen), developing and testing materials and approaches for the proposed handbook on formation of multicultural choirs on university campuses. The choir membership changes with the academic terms, but community and staff members provide a constant foundation. A second choir is beginning in 2013 with Blair Ellis at the helm (student with a Music Performance degree, now completing a Psychology degree at Mount Alison).

⁵ Others interested in a similar initiative should get in touch with Ross Dwyer who will provide information on the policy and commitments of the voice students. Additional students are welcome at any age and background level.

Plans are to develop the resilience of song project with Godfrey Baldacchino and Steven Brown, following the July videoconference workshop. In connection with the development of multicultural choirs and beyond, Godfrey plans also to initiate a study of tensions in choral singing where goals differ with respect to singing for accuracy versus singing for the fun of it.

Lily Chen-Hafteck has received funding for her second conference on [Educating the Creative Mind](#), and a symposium from AIRS on singing and creativity in children would be welcome on the program (Deadline Feb 1). It is expected that the meeting will provide an opportunity for members of the Quad-cultural Songbook project to meet. Lily is managing the data analysis begun over the summer, entailing results from over 400 students in grade 5 in 4 countries.

Sub-theme 3.2 Singing and Intergenerational Understanding. Rachel Heydon and her team including Canada Research Chair (Brock) Jennifer Rowsell extended the original Intergenerational Singing (IG) project to a new digital IG singing project. They introduced ipads to the seniors and used videos of the children singing. It was wonderful. The seniors had the choice of whether to take the ipads home to play with and all wanted to. They loved them. A funny moment occurred when one woman accidentally stumbled upon some Justin Bieber videos. A group of senior women gathered around that ipad to watch him sing. They laughed and laughed and teased each other. Meanwhile the development of the handbook for IG Singing Curriculum is continuing.

Sub-theme 3.3 Singing and Health Benefits. Jennifer Nicol has research moving along several different lines. Following ethics approval, the Stonehouse/Nicol thesis study on inclusive choirs has started recruitment and completed an interview and 2 observations. Active recruitment is ongoing for the Blom/Nicol thesis study on parent music groups with the first round of data collection completed. The data collection for the Emmerson/Nicol dissertation study on high school based music/singing program for adolescent moms and their children wraps up in December. Some of the latter footage may become shared in the digital library. A new student RA (McAllister) joined the grounded theory study of choir membership and perceived health benefits and started another round of recruitment.

New AIRS member Laurel Young (Concordia) obtained seed funding from Concordia University for research: "The Use of Singing to Promote Health and Well-Being for Adults with Developmental Disabilities" supplementing funding for research assistants obtained from AIRS. An abstract was submitted to the Canadian Association of Music Therapy to present a paper related to this work at the 2013 conference in Saskatoon. She also facilitated a 4-week music and health group at Wellspring Cancer Support Centre in Toronto which had a singing and wellness component. New AIRS member Amy Clements-Cortez (Baycrest, Toronto) has continued to lead Buddy's Glee Club and the data are to be analyzed in the new year. She has also received independent funding to create a CD associated with this (very) senior's choir that she points out, could be used for research purposes.

Steven Clift (Sidney de Haan Centre, Canterbury, UK) reports being half way through a two year project on singing and COPD. Results from the evaluation of the first year of singing groups are being processed at the moment. Six groups were established with a total of 106 people with COPD at baseline. Groups met weekly for 10 months with the usual seasonal breaks. Spirometry and St. Georges Respiratory Questionnaire are the principal measures. Preliminary analysis has show significant positive improvements in lung function and health status at 10 month follow up. The groups and performances have been filmed and his team is currently creating a series of short films to illustrate the work of the project.

Of **general interest** to all groups, Sally Busch (supervisor Mary Gick) is developing a survey of singing engagement (going beyond the typically have you sung in a choir, have you taken voice lessons) and Blair Ellis is exploring anxiety about singing, in order to get a handle on the problem of a biased sample in studies of singing (that possibly draw on a minority who do not mind singing in public).

OTHER NEWS

Staffing

Ross Dwyer, who arrived as our new Administrative Assistant a year ago, has certainly learned the ropes, and will see AIRS through the next productive year. AIRS benefitted greatly from project management services of Therese Antonini who has now moved on to another management position. Nyssim Lefford spent 7 months with AIRS working as a Postdoctoral Fellow focusing on the Digital Library until this fall when she took a full-time faculty position in Sweden. We miss Therese and Nyssim and wish them well. The [postdoctoral position](#) for research work on the digital library is being posted and all qualified applicants are encouraged to apply (see Student Opportunities at airsplace.ca).

Sub-theme videoconferences February 2013

Early in January, Ross Dwyer will schedule videoconferences for each of the 9 sub-themes for early February. The main purpose of these meetings is to decide on the direction and details of the sub-theme's proposal to support students in Year 5 (meeting the new milestones for the sub-theme as best as possible). The student funding applications are due February 25th (submitted by faculty, not students, and ideally only by the sub-theme leader(s) on behalf of the sub-theme members) with release of results of the competition in March for work to begin as early as April 1, 2012.

AIRS Quarterly reports

A final Year 4 report on activity of all themes and all members will be compiled in June, 2013 based on the new on-line reporting forms. (<http://www.airsplace.ca/node/1148>). Thanks to all who have already completed their first report, and please everyone else try to do so. Thanks to Jonathan and Therese for implementing this report form, and Mary Gick for comments on the form, which is working very well at the outset. Feedback remains welcome.

5th Annual Meeting - August 11-13, 2013, at Ryerson University, in Toronto. The [Biennial Meeting of the Society for Music Perception and Cognition](#) August 8 – 11 (convened by Frank Russo) will precede the AIRS 5th Annual Meeting, August 11-13. The two meetings overlap with an opening AIRS poster session August 11, 2:30, to which all members of SMPC are invited. The AIRS opening plenary will take place on August 12th, with Plenary Technical Sessions in the afternoon, dinner and concert in the evening. The AIRS Workshops will take place on August 13th. The Quad-Country Songbook project workshop will likely be on the 11th or 13th (TBA). As in prior meetings, singing and technical presentations will share the stage. Accommodation for 3 nights as needed will be provided to all AIRS members, and travel support will be awarded (by competition) to at least one student from each sub-theme.

AIRS Partners

A new partnership is developing with [SingFit](#) following Rachel Tubman's visit to the AIRS 4th Annual Meeting. SingFit has created an app that "enables healthcare professionals and informal caregivers to provide improved care through singing". The company is also advertising the position of "[Clinical Research Manager](#)" which might be of interest to a senior graduate student or graduate with "educational or research experience at the intersection of health and music".

AIRS has obtained ethics clearance to interview songwriters (through [Music PEI](#)), members of [Veteran's Affairs Canada](#) choir, and newcomers to PEI (affiliated with [Culture PEI](#)).

PROJECT ADMINISTRATION MESSAGES FROM ROSS DWYER

Current action requests for AIRS Collaborators:

AIRSplice website information updates required:

AIRS will be working in the coming months on updating the [AIRSplice](#) website and needs your help in making sure we have the most up-to-date information about all of our members. Please review your contact and background information on the [AIRSplice](#) web site and verify that all your details and information are current, and that you have uploaded a photo.

If you are unsure of how to update your information, here is a quick guide to get you started:

- Log in to your account on the [AIRSplice](#) website
- Click on the “My Account” Icon on the left of the screen.
- Click “Edit”
- Update BOTH your “Account” and “User Information” Sections.
- Upload your Picture on the “Account” Section. (Maximum dimensions are 85x85 and the maximum size is 30 kB)

We would very much like to have two photos of each of our members for the new site, the image you have uploaded on your account section, and a second image of you doing what we do best here at AIRS, Singing! We will be making a collage of all AIRS members singing - based on an striking precedent created for the Toronto Mendelssohn choir, long ago.

Please send this "singing image" directly by email to Ross Dwyer – Rdwyer@upei.ca, for incorporation on the new website collage.

Dated Book Series submissions:

Submissions for the edited book series are still being requested. Please follow the link to submit your abstract: [The Abstract Submission for AIRS Edited Book Series on Interdisciplinary Research in Singing: Volume 1 Development, Volume 2, Education and Volume 3 Well-Being.](#)

AIRS Quarterly Reports:

If you have not done so already, please follow the link to submit your [Quarterly Report: Individual Researcher Report for period of July 1 to November 30, 2012](#)

These reports are an invaluable resource to the AIRS team and help to keep us up-to-date with all of the excellent Research work happening throughout the project.

Finally, the Project Administration Team would like to take this opportunity to wish you all the best for the upcoming festive season and would encourage you to please contact Ross on Rdwyer@upei.ca, 902-566-6023, if you have any questions or need any assistance with any AIRS administration related issues, such as contracts, aspects of funding, and AIRS policies.

FINAL REMARKS OF THE DIRECTOR OF AIRS

As seen above, the quality and quantity of activities of AIRS across the country and around the world are nothing short of outstanding. Each theme of AIRS is acquiring new knowledge about singing on many fronts, and exciting synergies are developing across sub-themes and Themes and with community partners. It is noteworthy that the research highlights section reflects only some of the key AIRS research activities over the last little while. There is much more to report. AIRS already has generated and will continue to generate much knowledge to disseminate to policy makers and leaders. Our next challenge is to augment our sharing of activities with stakeholders, partners, and policy makers. An AIRS workshop is being encouraged in London, Ontario for example, where there is a nucleus of AIRS researchers in each of the Themes, as well as many partner and stakeholders having some involvement.

There is much to be thankful for, and in closing the year, I would like to specially acknowledge:

- ♪ the Social Sciences and Humanities Research Council of Canada (SSHRC) for funding AIRS (over 60 students received funding in Year 4 alone)
- ♪ AIRS Advisory Board members: Hilary Apfelstadt, Philip Smith, and Catherine (Kate) Stevens
- ♪ AIRS Theme Leaders: Frank Russo (Theme 1, Development), Patricia Campbell (Theme 2, Education), and Mary Gick (Theme 3, Well-being). NB: Helga Gudmundsdottir has kindly shared Theme 2 leadership since September. This group, which forms the AIRS Steering Committee, in addition to taking responsibility for an entire Theme of AIRS, is enormously helpful to me in sharing the review and direction of all aspects of AIRS activities through regular monthly meetings (beginning #38 in 2013!).
- ♪ AIRS Sub-Theme leaders:
 - Theme 1: Development - Christine Tsang and Laurel Trainor (1.1), Frank Russo & Sandra Trehub (1.2), Annabel Cohen (1.3)
 - Theme 2: Education - Patricia Campbell (2.1) Darryl Edwards (2.2), Jenny Sullivan & Andrea Rose (2.3)
 - Theme 3: Godfrey Baldacchino & Lily Chen-Hafteck (3.1), Rachel Heydon (3.2), Jennifer Nicol (3.3)
- ♪ AIRS Policy and Planning Committee (all sub-theme leaders + leaders of the Global Group (Mayumi Adachi and Stefanie Stadler Elmer), Partners (Lee Willingham and Corrinne Henricksen-Eldershaw), Stakeholders, Student and Early Career Researcher group (Arla Good), and the Stats, IP, and Ethics Group (Jenny Sullivan, Mary Gick, Bradley Frankland)
- ♪ AIRS Student and Early Career Researcher group (Arla Good)
- ♪ Conference Workshop organizers, Lily Chen-Hafteck, Coralie Vincent, Nyssim Lefford, Bing-Yi Pan
- ♪ AIRS Digital Library Team: (Nyssim Lefford, Jonathan Lane, George Tzanataki, Theresa Leonard in leadership roles)
- ♪ AIRS numerous community partners and stakeholders
- ♪ UPEI: Department of Psychology, Faculty of Arts, University Library, Vice President Research, and Office of the President, and the home team of Therese Antonini, Ross Dwyer, Nyssim Lefford, Jonathan Lane, & Bing-Yi Pan, Donald Moses

I remain humbled and honoured to be leading this extraordinary team. Please accept:

- **my thanks** for all your amazing work and activities that is associated with AIRS
- **my congratulations** on your remarkable research progress
- **my encouragement** for your continued dedication to singing research, and
- **my best wishes** for a wonderful holiday season and a prosperous and fulfilling New Year.

We will see each other soon by videoconference. In August many will be together in Toronto at AIRS-5, and there will be plenty of opportunities for smaller groups to meet in other settings around the globe throughout the year ahead. I look forward to keeping in touch with you all during 2013, a year which promises many fruits of our labours.

Sincerely,

Annabel Cohen

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