

Program

ANNABEL J. COHEN AND THE AIRS
SUMMER RESEARCH STUDENTS

MUSIC AND THE MIND- MARITIMES

A collaborative workshop featuring
music and psychology



July 19, 2019 | 10am-4pm | Andrew Hall

Schedule of
Events

Director's
Welcome

Student Organizer's
Welcome

Presentation
Abstracts and
Biographies



UNIVERSITY
of Prince Edward
ISLAND

Celebrating the 10th anniversary of the AIRS Lab and the 25th anniversary of the Music Cognition Lab!

A special thank you to the faculties and departments at UPEI
who have made this event possible

*Benefitting Society through Training and Research in Music Cognition,
Auditory Perception, and Singing
In the context of Culture, Multimedia, Technology and Cognition in Education*

SCHEDULE OF EVENTS

MORNING

9:45 Coffee

10:00 **Corey Collett**, Summer Lab Student- welcome

10:10 **Rob Oakie**- Executive Director, MusicPEI

10:15 Musical presentation- **Alexandra Smith**, BMus, Summer Lab Student, voice & **Justin Amador**, BMus, Lab Alumni, piano

10:25 **Alexandra Smith**, BMus- Benefits of Later Life Singing Lessons

10:30 **Katherine Lowings**- Music Therapist, Catholic Family Services Bureau

10:45 **Mark Sandiford**- Executive Director, CreativePEI

10:50 Break

11:00 **James Mullen**- Founder, CEO, Adventus International- An Interactive Approach to Music Learning for Universal Access to Instrumental Skill Development : MusIQ Box

11:15 **Keynote- Dr. Jessica Strong**, PhD, UPEI- Instrumental Music Training and Late Life Cognition

12:00 Lunch

Boxed lunch (for pre-registrants) courtesy of UPEI Department of Psychology and the Faculty of Arts

AFTERNOON

1:00 Tony Reddin- Three-song sing-along

1:10 Sara Campbell- Learning Manager, School of Performing Arts, Holland College

1:15 Musical Presentation- **Erin Hannah**, BA and Honours Student, voice and guitar

1:20 Erin Hannah, BA- Creativity and Music: A Literature Review

1:30 Jingyuan Sun, BA Honours- The Influence of Tone Language in Singing

1:45 Dr. Jonathan Wilbiks, PhD, Assistant Professor, Department of Psychology UNB- Pitch-space interactions are modulated by response mapping: a ground-embodied-situated perspective

2:00 Emma Campbell, BA- Music and Parkinson's disease

2:05 Break-Celebratory Cake

2:15 Corrine Hendricken-Eldershaw, Alzheimer Society PEI

2:20 Emily Hughes, BA and Honours Student- Singing and Dementia

2:30 Corey Collett- Knowledge of Pop Music in Canadian and Chinese University Students

2:40 Musical Presentation- **Sannu Lawt**, Mount Allison University, and **Minu Lawt**, Queen Charlotte Intermediate, violins

2:50 Student Panel

3:05 Audience response to the day- what questions about music and the mind are important to you and how could they best be solved?

3:20 Dr. Annabel J. Cohen, PhD, ARCT- How film music works: Congruence, Association and the Working Narrative (CAM-WN)

3:30 Closing Remarks- **Dr. Annabel J. Cohen**

3:35 Optional Music Cog/AIRS laboratory and poster tour, or patio chat weather permitting

4:00 End of Music and the Mind: Maritimes Workshop

STUDENT ORGANIZERS' WELCOME

Good morning,

We wish to thank you all for taking the time to attend our workshop today. We have spent much time coordinating this event and hope that it creates a positive and useful space to share information. This summer has been a busy one for us in the lab. Along with research, we have been focused on making our space accessible and functional for us. Twenty-five years of the lab means twenty-five years of materials to examine! Our time here in the lab has included weekly meetings with five other members, including Dr. Annabel Cohen and Honours students, along with special guests. We can share our progress, ideas, and advice during this time, which has been most helpful. We are grateful to Dr. Cohen and the University of Prince Edward Island for granting us the opportunity to work in our areas of interest and to continue advancing the field of music psychology.

Sincerely,

Alexandra Smith and Corey Collett, AIRS Summer Research
Assistants

CHAIR'S WELCOME

Dear Participants in the Music and Mind: Maritimes Workshop,

On behalf of the Department of Psychology of the University of Prince Edward Island, I am delighted to welcome you to this intensive summer workshop on Music and Mind: Maritimes. The event marks 25 years of research in the Music Cognition and Auditory Perception Research and Training Laboratory. Many students have had valuable experience and acquired skills that have served them well in their careers. I know because I am one of them. As an undergrad in the lab, over 20 years ago, I first learned that I could do research and, what is more, that I loved it! Although I did not stay in the music area, the general skills that I learned during my time in the Music Cognition and Auditory Perception Research and Training Laboratory were largely transferable, and it so happened that my later studies of ultrasonic vocalizations in rodents were both facilitated and enhanced by the acoustical information and research techniques that I had picked up in the Music Cognition lab.

The Workshop also marks 10 years since the inception of the AIRS Major Collaborative Research Initiative on Singing that has taken our understanding of singing to the next level, from the perspectives of many disciplines. Through conversations with Dr. Annabel Cohen, I've learned that a 3-volume books series (Routledge Companion to Interdisciplinary Studies in Singing) will soon be published, with the volume on Singing and Well-being already submitted to the publisher, and the remaining two on

Development, and on Education soon to follow – a total compilation of over 100 chapters, to which UPEI undergraduates, graduate students, postdoctoral students, and UPEI faculty members have had the opportunity of contributing, while several other students worked as the manuscript co-ordinators.

Today's Music and Mind: Maritimes workshop is truly multidisciplinary and cross-sectoral, building bridges across educational, community and industry constituencies. At UPEI we are immensely proud of the leadership role that Dr. Annabel Cohen has played in bringing about remarkable collaborations and offering students exceptional training opportunities. We are truly proud of the successes of our UPEI students, so well represented on today's program. The workshop itself has been organized by students, Corey Collett and Alexandra Smith, and much credit is owed to them, along with the other lab members. We look forward to long-term fruitful relationships in the Maritime region, pursuing possibilities to which this workshop on Music and the Mind will give rise.

Have a great workshop.

Sincerely,

Tracy Doucette, Ph. D.

Chair, Department of Psychology

DIRECTOR'S WELCOME

It is a pleasure to welcome you to this celebratory Music and Mind: Maritimes workshop. The event marks 25 years of the UPEI Department of Psychology Music Cognition and Auditory Perception Research and Training Laboratory (UDPMCAPRTL for short) and 10 years since the start of the Advancing Interdisciplinary Research in Singing (AIRS) project. These two initiatives have supported and been supported by dozens of UPEI undergraduate students. Many have gone on to speech pathology and audiology. Some have gone on to graduate school in psychology and become clinical psychologists or university professors; some are teachers or are employed in other ways. It is always the hope that experience in the laboratory has been applicable to their careers and has led to future opportunities.

Students in the lab working on problems related to music cognition, auditory perception, or singing are often building on the work of previous students, and in this way, knowledge accumulates. Dissemination of this new knowledge through publication or conference presentation, serves a purpose of advancing understanding of human behavior and the brain. This summer, the laboratory was blessed with an extraordinary group of talented students interested in music research from many different perspectives. As they shared their knowledge and interests at our early lab meetings, the idea of having a student-led workshop began to take shape, with the reigns handed over to co-organizers Corey Collett, a final year undergraduate Psychology student and Alexandra Smith, a graduate of the UPEI Music Department. They have worked tirelessly and with imagination to bring you this day. They are deserving of boundless thanks. I acknowledge also the conscientious support of the other lab members, Emma Campbell, Erin Hannah, Emily Hughes, Henry Orford, and Jingyuan Sun, who will share their research projects with you.

My gratitude is also expressed to executive directors of provincial organizations whose mandates connect with music in unique ways: Corrine Hendricken-Eldershaw (Alzheimer's Society PEI), Mark Sandiford (Creative PEI), Rob Oakie (Music PEI), and Sara Campbell (School of Performing Arts of Holland College). Music therapist Kathering Lowings (Catholic Family Services Bureau) adds yet another critical dimension to the program. Further afield, I am delighted to

welcome from Nova Scotia, James Mullen, founder and CEO of Adventus international, developer of music educational software and hardware, and from the University of New Brunswick, St. John, Dr. Jonathan Wilbiks whose special interest is music psychology. Also it is so fortuitous that Dr. Jessica Strong, the newest member of the UPEI Department of Psychology Clinical PsyD program, has a special interest in the application of music in aging, and has moved to PEI from Boston, in time to give our keynote address.

A Music and Mind: Maritime workshop would not be complete without live music performance.

Appreciation is expressed to today's talented performers: including Erin Hannah (vocalist/guitar), duo Alexandra Smith (vocalist) and Justin Amador (piano), and Islander violinists/fiddlers Minu Lawt a student at Queen Charlottetown Intermediate School, and Sannu Lawt, from the Department of Music, Mount Alison University.

My gratitude extends to the Department of Psychology, chaired by Dr. Tracy Doucette, and the Faculty of Arts (Dean Neb Kujundzic, acting Dean James Moran), for the 25 years of support of the Music Cognition Laboratory, and to UPEI Research Services and UPEI as a whole for its support of Music Cognition and AIRS initiatives over many years.

All attendees of the workshop, from various walks of life, help to direct our research to real-world problems where music can play a role in benefitting society. Your input, feedback and ideas are welcomed regarding what issues associated with music are important and how we can work together addressing them. I wish you a most fulfilling experience at this Music and Mind; Maritimes workshop.

Sincerely,

Annabel Cohen, Ph. D., A.R.C.T.

Director, AIRS

UPEI Music Cognition and Auditory Perception Research and Training Laboratory

PRESENTER BIOGRAPHIES AND ABSTRACTS

Rob Oakie- Executive Director and co-founder of Music PEI, Rob Oakie has been instrumental in the growth of PEI's music industry. Since establishing Music PEI in 2008, the number of PEI internationally touring artists has grown by over 400%. Rob developed an effective grant program, an international artist exchange program, 2 conferences (Showcase PEI and the Canadian Song Conference) and many other innovative programs. Rob was awarded the 2019 ECMA Stompin Tom Award for his work in the music industry and is a mandolinist when time allows.

Presentation abstract-

- The Canadian Song Conference
- Canadian Songwriter Challenge
- The Golden Ticket Program
- Takin Care of Business
- Showcase PEI

Alexandra Smith holds a Bachelor of Music in vocal performance from the University of Prince Edward Island under the tutelage of Professor Sung Ha Shin Bouey and Stephen Bouey. She has also spent the past year studying at the University of Toronto with esteemed voice teacher and coach, Laura Tucker.

Her interests extend beyond music and singing to include linguistics, language acquisition, and psychology. She has taken courses in all of these areas both from the University of Prince Edward Island and the University of Toronto. Although her formal musical training has been in classical voice, Alexandra also performs across Prince Edward Island singing in various styles such as jazz and pop music.

In the fall, Alexandra will be attending Dalhousie University to begin her Master of Science in Speech-Language Pathology. She hopes to be able to combine her love for music, linguistics, and psychology to aid singers struggling with vocal health issues, and to incorporate music into her practice in the future.

Presentation Abstract

Much is known and continues to be discovered about instrumental music lessons, however, oftentimes, singing lessons go overlooked as a viable option for people. In fact, little to no work has been done on discovering the benefits of singing lessons for people who start these lessons later in life.

The presentation addresses the ongoing analysis of a study and some of the benefits of singing lessons reported by later life singers.

Katherine Lowings, BMT MC MTA CCC, holds a Bachelor of Music Therapy from Acadia University and a Masters of Counselling from the University of Lethbridge. She is a Certified Music Therapist through the Canadian Association for Music Therapy works as a Music Therapist, Family Therapist, Music Therapy Internship Supervisor, Triple P Practitioner, and Music Together Within Therapy provider at Catholic Family Services Bureau (CFSB) in Charlottetown PE. CFSB is an non-profit non-denominational counselling agency that works to provide all Islanders with the help they need. She is also the President of the Atlantic Association for Music Therapy and is currently completing her Masters in Counselling from the University of Lethbridge. Katherine works within the community to provide services on an individual and group basis with a wide variety of clients. Katherine uses the power of music and other creative interventions to connect and communicate with the client's she works with. She seeks to provide a positive environment where clients can use their strengths to overcome their challenges.

James Mullen- Jim Mullen is founder and CEO of Adventus International, an education technology company building a reputation for uniquely engaging and effective music education solutions. With degrees in Mathematics and Electrical Engineering from the University of Waterloo, Jim began his career as an electrical engineering at Hewlett Packard before moving to NS to teach electronics at NS Community College. After several years teaching, and after his first successful commercial software application, Jim became interested in using technology to improve the way learning occurs. Jim's interest in creating a successful business resulted in the creation of Adventus in 1996. Jim is one of ten children in his family, each of whom completed their RCM Grade VIII, a testament to his parents' strong interest in child development and music. With Adventus Jim planned to increase access to learning the language of music, focused on significant skill development.

Within two years Adventus had developed its first successful software engine to provide immediate, quality feedback while a student played a MIDI piano keyboard connected to a computer. The effect on the learning process was significant, and the pedagogy and content were integrated in such a way as to keep students engaged and successful through each stage of learning. Today, the comprehensive Adventus suite of music and piano learning software is enjoyed in several countries, from preschool through university, each blended learning solution combining technology, pedagogy and content with detailed teacher guidance to ensure easy integration into any comprehensive music curriculum. In 2009 Jim was nominated for a Manning Innovation Award for Adventus innovation that changed the way music is learned. Adventus solutions are used by over 400 schools across North America, by over a million students.

Presentation Abstract

The presentation will take examples of classroom and individual use of the comprehensive blended learning solution, demonstrating how universal access can be consistently achieved at any school, providing evidence of the key observable benefits resulting from investment in this approach. The presentation will highlight barriers to adoption of change and will demonstrate a classroom and home solution that is much simpler and more effective than previous solutions on the market.

Jessica Strong, Ph.D., is a licensed clinical geropsychologist and Assistant Professor of Psychology at UPEI. She holds two Bachelor's degrees with majors in Psychology, German, and Piano Performance. Before beginning her graduate studies, she was awarded a Fulbright Grant to study the effect of music therapy on dementia and depression in Mannheim, Germany. Dr. Strong received her Ph.D. in Clinical Psychology from the University of Louisville, specializing in Aging and Neuropsychology. She completed her clinical rotations at the Boston VA Healthcare System, affiliated with Harvard Medical School. Dr. Strong's research focuses broadly on early life music exposure and late life cognitive change, as well as music used as an intervention in late life.

Long-time musician and song-writer **Tony Reddin** hails from Bonshaw. Self taught on guitar, Tony has recorded quite a few songs, sings in many choirs, and MCs the monthly Bonshaw Ceilidh. He also enjoys volunteering at schools, as a community event organizer, and as a leader of singalongs, dances, nature walks, canoe paddles and discussions of other alternatives to fossil fuel consumption. He'll be sharing some of his songs Friday evening at the Haviland Club, 8- 10:30 pm, to which he would like to invite everyone!

Sara Campbell's musical career began early on PEI with piano lessons, church choir, concert band and jazz band. After taking voice lessons through high school, she went on to graduate with first class honours from St. Francis Xavier University with a Bachelor of Music in Vocal Jazz. She completed a Masters of Sacred Music at the University of Toronto and Emmanuel College. Sara studied Vocal performance and pedagogy with Lynn Blaser, and had the pleasure of learning conducting and choral techniques from Dr. Hilary Apfelstadt, Dr. Lori Dolloff, and Zimfira Poloz. Sara is particularly interested in Vocal Science and how bringing new visual techniques into private lessons can enhance a singers performance and understanding of their instrument.

Sara sings in the alto section of Sirens, an eleven-member, award-winning women's chorus in Charlottetown. The choir is enjoying a busy 2018 season with a performance in March and a feature concert at the Indian River Festival in June. Sirens will also be featured at Podium this summer, a national choral and conducting conference taking place in St. John's NFLD. While there, they will perform the world premiere of composer Jeff Enns new commission, "Sorrow Song of Whales." This work was made possible with partnership from Mi'kmaq elder Methilda Knockwood and PEI Poet Laureate Deidre Kessler with funding from the PEI government. When she's not busy singing and teaching, Sara spends time at home with her husband Dave, and their two-year-old son Ben.

Erin Hannah received her undergraduate degree in Psychology from the University of Prince Edward Island. She is currently working on her Honours degree exploring music, improvisational singing and the question of domain-specific creativity. In her free time, Erin enjoys singing and playing guitar.

Presentation Abstract

This presentation is based on Erin's literature review for her Honour's Thesis. It will introduce the what, why, and how of creativity, the fundamentals of music psychology, and what is known so far in the field of musical creativity in the field of psychology.

Jonathan Wilbiks is an Assistant Professor of Psychology at the University of New Brunswick Saint John. His research interests surround the human perceptual system, specifically how we take information from auditory and visual stimuli in our environment and integrate them with one another. He is also interested in studying differences in audiovisual integration between people, including the influence of musical training and ability, autism spectrum disorders, and other similar individual difference factors.

Presentation Abstract

In making perceptual decisions about auditory stimuli, individuals have been shown to be influenced by irrelevant visual stimuli that are presented at around the same time as the auditory stimulus. Generally speaking, a visual stimulus presented high in space tends to be more easily associated with a relatively high pitch, and a visual stimulus low in space matches better with a low pitch. This is demonstrated through an increased in accuracy, as well as a decrease in responding speed when making a pitch judgement. These pitch-space interactions have recently been shown to also be influenced by response mapping. If responding to a high pitch with a response button high in space (or a low pitch and a low response button), this also promotes faster and more accurate responding. The current research takes this interaction and examines its effects in a grounded-embodied-situated (GES) perspective. The GES framework illustrates how humans orient themselves in space (groundedness), act and interact based on experience (embodiedness), and are malleable and subject to the influence of their present scenario (situatedness). Specifically, we examined individuals who have (or do not have) familiarity with the cello in a context where responding was set up similarly to the cello, as well as a context where it was set up in a more standardized way. Findings suggest that response orientation does play a significant role in this context, and that musical sophistication (although not necessarily specific to the cello) also plays an important role in pitch perception.

Emily Hughes, is an Associate Consultant at IG Wealth Management, where Emily produces holistic financial plans, encompassing anything from investments to tax planning to estate and retirement planning.

As a young entrepreneur, Emily has made the decision to step back into the academic sphere and is currently working on her honours degree with Dr Annabel Cohen. This project will be focused on musicality and dementia, specifically on singing and dementia patients. This will also be the subject of her presentation today.

Hailing from the north shore of our gentle island, Emily is also a professional dog enthusiast and enjoys participating in Netflix marathons in her downtime.

Corey A. Collett is something of a modern day renaissance man. Working toward a Bachelor's of Science, with a focus on Chemistry, double majoring in Psychology and Sociology he has a well-rounded undergraduate education. Corey plans to start his Honours work in psychology under the supervision of Dr. Cohen in the fall. Before returning to Academia, Corey has worked for several years as a Commissionaire at the Pearly and Rideau Veterans Health Center in Ottawa, Canada. During this time, he developed a passion for helping and caring for persons of advanced years and dementia, which is what prompted his return to study Psychology and Science.

Corey is also the president of MAPUS (Mature and Part Time University Students) of UPEI and enjoys helping other mature students navigate university life. When not working on campus in the Psychology department Corey enjoys reading Tolkien, Goodkind, Moon, Butcher.. the list of favourite authors goes on for a while. Corey also enjoys an eclectic taste in music with special mentions going out to Uematsu, Chopin, and Graffin. In the lab, Corey fills that ever critical role of Jack of All Trades, helping out anywhere needed whether it is SPSS data analysis, wrangling technology, helping keep things in their proper place and everything in between.

Presentation Abstract

Building on the work of Krumhansl and Zupnick (2013) this study applied a cross-cultural approach to examining the cascading reminiscence bump. This study examined both Chinese and Canadian university students' knowledge of pop music. This presentation explores the background, demographics, methods and results of the study. Additionally, this presentation will discuss what it is like to come into a research project late and working with already collected data.

Cohen, Annabel is a Professor of Psychology at the University of Prince Edward Island where she directs the Music Cognition and Auditory Perception Research and Training Laboratory. She initiated and directed the Advancing Interdisciplinary Research in Singing Major Collaborative Research Initiative. She was Editor of *Psychomusicology: Music, Mind, & Brain* (2009 – 2017). She is a fellow of the American Psychological Association, the Canadian Psychological Association, and the Psychonomics Society.

Presentation Abstract

Film music serves many functions in a film, and audiences are often oblivious to much of the effective music in film. How is it that music that is not part of reality of a film when added to the film engages an audience? The presentation addresses these phenomena by focusing on two basic aspects of cognition: bottom-up sensory processes and top-down memory and narrative processes, and two coding principles of structural congruence and association respectively. All four aspects contribute to the establishment of the dynamic “Working Narrative” that is the experience of watching a film. Together these processes are encompassed by the Congruence-Association Model with Working Narrative (CAM-WN) that accounts for how the audience makes sense of the multimodal sources of information, including music, presented by film director. The theory has inspired several different lines of research conducted UPEI students.