Meg Cychosz

Department of Hearing & Speech Sciences 0100 LeFrak Hall University of Maryland, College Park College Park, MD 20742 Mail: mcychosz@umd.edu Web: megseekosh.github.io Git: github.com/megseekosh

Professional experience

Beginning Assistant Professor, Department of Linguistics,

August 2023 University of California, Los Angeles

June 2020- NIH-National Institute on Deafness and Other Communication

present Disorders (NIDCD) Postdoctoral Researcher

Center for Comparative & Evolutionary Biology of Hearing Trainee

& Department of Hearing and Speech Sciences

University of Maryland, College Park

Education

2020 **Ph.D., Linguistics,** University of California, Berkeley

Keith Johnson & Sharon Inkelas (co-chairs)

2017 **M.A., Linguistics**, University of California, Berkeley

2015 Master 1, Phonetics and Phonology

Université Sorbonne Nouvelle-Paris 3

2014 **M.A., Spanish**, Indiana University

2012 B.A., Spanish, B.A., English, B.A., French, Butler University

Additional training

forthcoming Introduction to Bayesian Data Analysis

Sixth Summer School on Statistical Methods for Linguistics and

Psychology, Potsdam, Germany

2022 ASA School 2022 Trainee: Living in the Acoustic Environment

Acoustical Society of America, Englewood, CO

2020 Certificate of Teaching and Learning in Higher Education

University of California, Berkeley

Spring 2017 **Department of Linguistics**

Stanford University

Spring 2011 Study Abroad

Université Paul Valéry III, Montpellier, France

Support

Current

2021-present NIH-NIDCD F32 Individual Postdoctoral Training Grant. "How

children with cochlear implants learn speech from their

environments." Cychosz, M. (Principal Investigator). Edwards, J., &

Newman, R (Co-Investigators). Projected award period:

06/01/2021-05/31/2023. Total cost: \$137,999.

2021-present NIH-NIDCD Extramural Clinical Loan Repayment Program. "How

children with cochlear implants learn speech from their

environments." **Cychosz, M**. (Principal Investigator). Edwards, J., & Newman, R (Co-Investigators). Total estimated cost: \$30,000.

newman, k (Co-investigators). Total estimated cost. \$50,00

Other

Awarded NSF-SBE Postdoctoral research fellowship (SPRF). Cychosz, M.

(Principal Investigator). Edwards, J., & Newman, R (Co-

Investigators). Total cost: \$137,169. [Declined due to overlap.]

2020-2021 NIH-NIDCD T32 DC000046 "Training grant on comparative and

evolutionary biology of hearing." Cychosz, M. (Postdoctoral

trainee). 06/01/2020-05/31/2021.

Publications

Refereed journals

Accepted Cychosz, M. Language exposure predicts children's phonetic

patterning: Evidence from language shift. Language. [pre-print]

2021 **Cychosz, M.,** Newman, R., Munson, B., & Edwards, J. Auditory

feedback experience in the development of phonetic production: Evidence from children with cochlear implants and their normal-hearing peers. Journal of the Acoustical Society of America.

[paper]

2021 **Cychosz, M.**, Edwards, J., Bernstein Ratner, N., Torrington Eaton, C.,

& Newman, R. Acoustic-lexical characteristics of child-directed speech between 7 and 24 months and their impact on toddlers' phonological processing. *Frontiers in Psychology: Developmental*

Psychology. 12, 712647. [paper]

2021 **Cychosz, M.**, Villanueva, A., & Weisleder, A. Efficient estimation of

children's language exposure in two bilingual communities. *Journal of Speech, Language and Hearing Research*. 64(10), 3843-3866.

[paper]

2021	Cychosz, M., Munson, B., & Edwards, J. Practice and experience predict coarticulation in child speech. Language Learning and Development. 17(4), 366-396. [paper]
2021	Cychosz, M. The coarticulation-duration relationship in early Quechua speech. <i>Journal of Phonetics</i> . 87, 101052. [paper]
2021	Cychosz, M., Cristia, A, Bergelson, E., Casillas, M., Baudet, G., Warlaumont, A. S., Scaff, C., Yankowitz, L., & Seidl, A. Vocal development in a large-scale, crosslinguistic corpus. Developmental Science. 24(5), e13090. [paper]
2021	Cychosz, M. , Erskine, M., Munson, B., & Edwards, J. A lexical advantage in four-year-old children's word repetition. <i>Journal of Child Language</i> . 48(1), 31-54. [pubmed]
2020	Cychosz, M.* , Romeo, R., Soderstrom, M., Scaff, C., Ganek, H., Cristia, A., Casillas, M., de Barbaro, K., Bang, J., & Weisleder, A.* Longform recordings of everyday life: Ethics for best practices. Behavior Research Methods. 52, 1951-1969. [paper]
2019	Cychosz, M. , Edwards, J., Munson, B., & Johnson, K. Spectral and temporal measures of coarticulation in child speech. <i>Journal of the Acoustical Society of America-EL, 146</i> (6), EL516-EL522.
2018	Cychosz, M. Bilingual adolescent vowel production in the Parisian suburbs. <i>International Journal of Bilingualism</i> , 23(6), 1291-1315.
	Manuscripts under review
Under review	Cychosz, M., Mahr, T., Munson, B., Newman, R., & Edwards, J. Phonetic detail, not auditory deprivation, shapes how preschoolers with cochlear implants process speech variation. [pre-print]
Under review	Cychosz, M. & Newman, R. Units of processing in perceptual normalization for speaking rate. [pre-print]
	Book chapters
2022	Cychosz, M.* , & Cristia, A.* Using big data from long-form recordings to study development and optimize societal impact. In Advances in Child Development and Behavior, ed. J.J. Lockman & R. Gilmore. Vol. 62, pp. 1-36. Cambridge, MA: Academic Press. [pubmed]
	Fully peer-reviewed conference proceedings
2019	Lin, S.*, Cychosz. M .*, Shen, A.*, & Cibelli, E. The effects of phonetic training and visual feedback on novel contrast production. In

Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia. 2019 Schuller, B. W. Batliner, A. Bergler, C., Pokorny, F. B., Krajewski, J., Cychosz, M., Vollmann, R., Roelen, S., Schnieder, S., Bergelson, E., Cristia, A., Seidl, A., Warlaumont, A., Yankowitz, L., Noth, E., Amiriparian, S., Hantke, S., & Schmitt, M. The INTERSPEECH 2019 Computational Paralinguistics Challenge: Styrian Dialects, Continuous Sleepiness, Baby Sounds & Orca Activity. In Proceedings of Interspeech 2019, Graz, Austria. 2018 Cychosz, M. Functional load and frequency as predictors of consonant emergence across five languages. In Proceedings of the 40th Annual Meeting of the Cognitive Science Society. 2017 Cychosz, M., Gordon, A., Odimegwu, O., Connolly, O., Bellassai, J., & Roemmele, M. Effective Scenario Designs for Free-text Interactive Fiction. Proceedings of the 10th International Conference on Interactive Digital Storytelling (ICIDS). Madeira, Portugal. 2017 Bellassai, J., Gordon, A., Roemmele, M., Cychosz, M., Odimegwu, O., & Connolly, O. Unsupervised Text Classification for Natural Language Interactive Narratives. Proceedings of the 10th International Workshop on Intelligent Narrative Technologies (INT10). Snowbird, Utah. Other conference proceedings 2018 Cychosz, M., & Kalt, S. The contribution of functional load on children's vocalic development. In Gallagher, G., Gouskova, M., and Yin, S. (eds.), Supplemental Proceedings of the 2017 Annual Meeting on Phonology. Washington, DC: Linguistic Society of America. 2018 Cychosz, M., & Kalt, S. Language-specific sources of acoustic stability. In Proceedings of the 42nd Annual Boston University Conference on Language Development. 2016 Cheng, A., Faytak, M., & Cychosz, M. Language, race, and vowel space: Contemporary California English, Proceedings of the 42nd Annual Meeting of the Berkeley Linguistics Society. (Vol. 42). Berkeley, California. Datasets and corpora Cychosz, M.*, Romeo, R., Soderstrom, M., Scaff, C., Ganek, H., 2020 Cristia, A., Casillas, M., de Barbaro, K., Bana, J., & Weisleder, A.*

Daylong Audio Recordings of Children's Linguistic Environments

Cychosz, M., Cristia, A., Bergelson, E., Casillas, M., Baudet, G.,

(DARCLE) Ethics Repository. DOI 10.17605/OSF.IO/U3TFV.

2019

4

Crosslinguistic Corpus of Babble Development in Five Languages. DOI 10.17605/OSF.IO/RZ4TX.
 Cychosz, M. Cychosz HomeBank Corpus, DOI 10.21415/YFYW-HE74. (2000+ hours of naturalistic daylong recordings of bilingual South Bolivian Quechua and Spanish speech)
 Escobar, E., Cychosz, M. Hayes, D., Lapierre, M., Raskit, T. L., Michael, L., Nee, J. E., & Remirez, E. Berkeley Field Methods: South Bolivian Quechua, SCL 2016-13, Survey of California and Other Indian Languages. University of California, Berkeley. DOI: 10.7297/X2T72FMM.

Warlaumont, A. S., Scaff, C., Yankowitz, L., & Seidl, A. BabbleCor: A

Published repositories (scripts + tutorials)

2020 **Cychosz, M.** Categorize app. GitHub Repository. github.com/megseekosh/Categorize_app_v2

2020 **Cychosz, M.** Triple formant tracker. Github Repository. aithub.com/megseekosh/vocal tract vowel

* Denotes shared first authorship

Fellowships and Awards

2022	Early Career Travel Subsidy
	\$500, Acoustical Society of America
2021	Young Investigator Travel Award
	\$500, Women in Acoustics & Acoustical Society of America
2021	Open Access Publishing Award
	\$1475, University of Maryland
2021	Strategic Plan Presentation Winner (for exemplifying international
	research related to children's development)
	Society for Research on Child Development
2019	Raymond H. Stetson Scholarship in Phonetics and Speech Science
	\$30,000, Acoustical Society of America
2019	Indigenous Languages of Latin America (ILLA) Travel Grant
	\$1000, UC Berkeley
2019	Oswalt Documenting Endangered Languages Grant
	\$4500, UC Berkeley
2018, 2019	Student Travel Subsidy Award
	Acoustical Society of America
2018	Student Technology Fund Grant, UC Berkeley
	to fund recording and field equipment for child language
	data collection in Bolivia
2018	Oswalt Documenting Endangered Languages Grant
	\$5000, UC Berkeley
Spring & Fall 2018	Dissertation Completion Fellowship

UC Berkeley

2017	Society for Language Development Student Award (awarded annually to the student demonstrating
2017	the most diverse research agenda) Tinker Summer Field Research Grant
	UC Berkeley
2016	Graduate Assembly Conference Travel Grant UC Berkeley
2016-17	Foreign Language Area Studies Fellowship: Portuguese Institute for European Studies, UC Berkeley
2015, 2016, 2018	Department of Linguistics Travel Grant UC Berkeley
2015, 2017	Student Technology Fund Grant UC Berkeley with Keith Johnson and Auburn Barron-Lutzross to fund recording equipment for UC Berkeley Sociophonetic Area for Recording Conversational Language
2013	Summer Research Grant, Indiana University
2013	Phi Beta Kappa
2012	Kappa Alpha Theta academic scholarship
annually	Rappa Alpha mela academic scholalship
ariirodiiy	
	Presentations
	Invited Talks (external)
2022	Cychosz, M. "What long-distance coarticulation can tell us about coarticulatory development." Invited talk part of special session "Perspectives on Long Distance Coarticulation" 183 rd Meeting of the Acoustical Society of America. Denver, CO.
2022	Cychosz, M. "Coarticulation, compensation, and phonetic change." ZAS Berlin: Phonetics & Phonology. Berlin, Germany.
2022	Cychosz, M. "Speech biases and the speech environment." Johns Hopkins Cognitive Science Colloquium, Baltimore, MD.
2022	Cychosz, M. "Coarticulation, compensation, and phonetic change." Harvard University Linguistics Colloquium, Cambridge, MA.
2022	Cychosz, M. "Coarticulation, compensation, and phonetic change." UCLA Linguistics Colloquium, Los Angeles, CA.
2022	Cychosz, M. "Environmental influences on children's phonetic development." San Diego State Speech, Language, and Hearing Sciences Colloquium, San Diego, CA.
2021	Cychosz, M. Why kids are hard to understand: Implications for speech technology and children's development. Invited talk for the Acoustical Society of America Press Room. [An outlet that

	provides "efficient dissemination of information regardingthe field of acoustics to the news media, science writers, and other interested parties."]
2021	Cychosz, M. Reconsidering variability in child speech production. Invited talk part of special session "Ideas worth reconsidering in speech perception and production." 181st Meeting of the Acoustical Society of America. [virtual]
2021	Cychosz, M. Environmental influences on speech development. University of Delaware Syntax, Neurolinguistics, and Phonetics/Phonology (SNaP) Meeting. Newark, DE.
2020	Cychosz, M. Environmental influences on children's phonetic development. UCLA Phonetics Seminar. Los Angeles, CA.
2018	Cychosz, M. Functional load and frequency as predictors of consonant emergence across five languages. Presented for Georgetown University Linguistics Department, PhonLab. Washington, D.C.
2018	Cychosz, M. Cross-linguistic predictors of consonant emergence. Presented for University of Maryland, Learning to Talk lab. College Park, MD.
2018	Cychosz, M. Cross-linguistic predictors of consonant emergence. Presented for University of Maryland, Project on Children's Language Learning. College Park, MD.
	Invited Talks (internal)
2019	Cychosz, M. Daylong audio recordings in linguistic research: Collection, management, and use. Presented for the Group on American Indian Languages, Berkeley, CA.
2019	Cychosz, M . Child learners and daylong recording methods: New challenges in linguistic fieldwork. Presented for the UC Berkeley Fieldwork Forum, Berkeley, CA.
2017	Cychosz, M. Language specificity in phonological development. Presented for University of California, Berkeley, Language and Cognitive Development Lab, Berkeley, CA.
	Conference presentations
2022	Cychosz, M. , & Cristia, A. "Using big data from long-form recordings to study development and optimize societal impact." Poster to be given as part of thematic poster session on <i>Western Biases in Infant</i>

Research: The state of the field and strategies for change. International Congress for Infant Studies. Ottawa, Canada.

2022	Villanueva, A., Cychosz, M. , & Weisleder, A. "Dual Language Input from Adults and Older Children in Two Communities." Poster to be given at the Special Topic Meeting: Construction of the 'Other': Development, Consequences, and Applied Implications of Prejudice and Discrimination. Society for Research in Child Development. Rio Grande, Puerto Rico.
2022	Villanueva, A., Cychosz, M. , & Weisleder, A. Do bilingual infants experience each language in distinct interactional contexts? Presented as part of symposium "Children's exposure to and use of socially meaningful variation in language." Cognitive Development Society. Madison, WI.
2022	Cychosz, M. Language exposure and phonological working memory development. Talk given at the 96 th Annual Meeting of the Linguistic Society of America. Washington, D.C.
2021	Cychosz, M., Edwards, J. R., Bernstein Ratner, N., Torrington Eaton, C., & Newman, R. Disentangling acoustic measures from lexical statistics in child-directed speech. Poster given at the 181 st Meeting of the Acoustical Society of America. Seattle, WA.
2021	Cychosz, M. Nonword repetition patterns in a culture with infrequent child-directed speech. Poster given at the 46 th Annual Boston University Conference on Language Development. Boston, MA.
2021	Cychosz, M., Munson, B., & Edwards, J. Children talking also matters: Language practice and experience predict speech production patterns. Talk given at the 15th Congress of the International Association for the Study of Child Language.
2021	Kuzminykh, N Cychosz, M Cristia, A. What day-long audio-recordings can tell us about children's vocal development. Talk given at the Münster Conference on Linguistic Representations and Language Processing.
2021	Villanueva, A., Cychosz, M. , & Weisleder, A. Dual language input from adults and older children in two communities. Poster given at the 2021 Society for Research in Child Development Biennial Meeting.
2021	Kuzminykh, N Cychosz, M .,Cristia, A. Effect of age and language phonological complexity on children's vocalizations. Flash paper given at the 2021 Society for Research in Child Development Biennial Meeting.



2019 Cychosz, M., Lin, S., & Johnson, K. Estimating bilingual children's language exposure from daylong audio recordings. California Meeting on Psycholinguistics. Santa Cruz, CA. [Unable to attend] 2019 **Cychosz**, **M**. Holistic lexical storage: evidence from child speech. Presented at the 19th International Congress of Phonetic Sciences, Melbourne, Australia. 2019 Lin, S.*, Cychosz. M.*, Shen, A., & Cibelli, E. The effects of phonetic training and visual feedback on novel contrast production. Presented at the 19th International Congress of Phonetic Sciences. Melbourne, Australia. 2019 Cychosz, M., Munson, B., & Edwards. J. Familiarity and practice predict autonomy in children's speech gestures. Presented at the Workshop on Modeling the Development of Speech Planning in Production. Macquarie University, Sydney Australia. 2019 Cychosz, M. Coarticulation varies by consonant identity in adult and child speech. Presented at the 177th Meeting of the Acoustical Society of America, Louisville, Kentucky. 2018 Cychosz, M., & Tracy, E. Bilingual speech associations in phonetic representation. Presented at the 176th Meeting of the Acoustical Society of America, Victoria, BC, Canada. 2018 Cychosz, M., Erskine, M., & Edwards, J. The lexical advantage: Four year old children learn words, not sounds. Presented at the 43rd Annual Boston University Conference on Language Development, Boston, MA. 2018 Cychosz, M. Functional load and frequency as predictors of consonant emergence across five languages. Presented at the 40th Annual Meeting of the Cognitive Science Society, Madison, WI. 2018 Cychosz, M. Cross-linguistic predictors of consonant emergence, Presented at the International Child Phonology Conference, Crete, Greece. 2017 Cychosz, M. & Kalt, S. Language-specific sources of acoustic stability in phonological development. Presented at the 42nd Boston University Conference on Language Development, Boston, MA. 2017 Cychosz, M. & Kalt, S. The contribution of functional load on children's phonological development. Presented at the 2017 Annual Meeting on Phonology, New York, NY. 2017 Daidone, D., Lidster, R., Kruger, F., & Cychosz. M. New methods for predicting perceptual discriminability of non-native contrasts. Presented at the 9th Annual Pronunciation in Second Language Learning & Teaching (PSLLT) Conference.

2017	Cychosz, M. , & Johnson, K. Social evaluation addresses actuation in sound change. Presented at the 4 th Workshop on Sound Change. Edinburgh, Scotland.
2017	Lin, S., Cychosz, M ., Shen, A., & Cibelli, E. Instructional and biofeedback training in L2 contrast learning. Presented at the 91 st Annual Meeting of the Linguistic Society of America, Austin, TX.
2016	Cychosz, M. Sources of variation in an emerging Parisian French vernacular. Presented at New Ways of Analyzing Variation 45, Vancouver, Canada.
2016	Cychosz, M. , & Garrote Salazar, M. Acquisition of the passive in Spanish-learning children: Constructing the syntactic skeleton. Presented at the 41 st Annual Boston University Conference on Language Development. Boston, MA. [unable to attend]
2016	Cychosz, M. Identity and adolescence as factors in L2 phonological acquisition. Presented at New Sounds: 8th International Conference on Second-Language Speech, Aarhus, Denmark.
2016	Cheng, A., Faytak, M., & Cychosz, M . Language, race, and vowel space: Contemporary California English. Presented at <i>Berkeley Linguistics Society 42</i> , Berkeley, CA.
2015	Cychosz, M. Variation in the signal: Social correlation in a completed sound change. Presented at New Ways of Analyzing Variation 44, Toronto, Canada.

Public Outreach

Public Lectures for A.G. Bell of Maryland

June 2022	"After the hearing screening: Establishing a foundation for language growth following diagnosis" with Christina Blomquist & Nicole Nguyen
July 2022	"Look, Listen, Learn: How early talk at home helps your child learn language" with Christina Blomquist & Nicole Nguyen
August 2022	"In the classroom and on the playground: Translating at-home practices for school" with Christina Blomquist & Nicole Nguyen

Public Events Organized

June 2022 "Mini scientist meet-and-greet" [an educational and play session

for children with hearing loss and their families] with Christina

Blomquist & Nicole Nguyen

Teaching Experience

University of Maryland, College Park: Tutorials & Workshops

Winter 2022 RMarkdown for intermediate/advanced R users, Primary Instructor

Winter 2022 **Getting started with grant writing**, Workshop leader

Winter 2021 Intermediate/advanced R, Primary Instructor

Winter 2021 **Practical tips for R**, Primary Instructor

UC Berkeley: Courses

Spring 2020 Linguistics: Phonological Development, Primary Instructor

Fall 2019 Linguistics: Phonetics, Graduate student instructor

Primary instructor: Susan Lin

Spring 2019 **Psychology: Language Development**, Graduate student instructor

Primary Instructor: Mahesh Srinivasan

Summer 2018 Linguistics/Psychology: Language Development, Primary Instructor

Linguistics: Historical Linguistics, Graduate student instructor

Primary Instructor: Andrew Garrett

Indiana University: Courses

Spring 2014 Spanish 200, primary instructor Fall 2013 Spanish 105, primary instructor

Spring 2013 Fall 2012

Fall 2017

Advising/Mentoring

UC Berkeley

2020 Adela Arriola 2020 Hitomi Torng

2019-2020 Karina Fong-Hirschfelder

2019-2020 Sierra Adachi 2019-2020 Rachel Elia 2019-2020 Kiran Girish 2019 Sonnet Phelps

2017-2018 Benjamin Papadopoulos

2016-2017 Sofea Dil

University of Maryland

2020-2021 Ka 2018-present Mi	a Garg, Aeshah Tawfik, Farheen Ahmed vya Ganesan, Kaliyah Gowing chele Liquori cca Higgins
---------------------------------	---

Other Professional Experience

Summer 2016 Visiting Research Assistant (Computer Science)

Institute for Creative Technologies, University of Southern California

2014-2015 English Language Teaching Assistant

Lycée Darius Milhaud, Le Kremlin Bicêtre, France

Summer 2012 Machine Translation Intern

Reverso-Softissimo, Paris, France

Academic Service

Manuscript Reviewing: Annals of the New York Academy of Sciences, Behavior Research Methods, Bilingualism: Language and Cognition, Child Development, Developmental Science, Diachronica, Ear and Hearing, Frontiers in Psychology: Language Sciences, Journal of Child Language, Journal of Phonetics

Conference Reviewing: Linguistic Society of America Annual Meeting, Cognitive Science Society, Many Paths to Language Acquisition, Berkeley Linguistics Society

Adhoc Grant Reviewing: UK Medical Research Council, Research Grants Council of Hong Kong

Organizing

2022	Co-organizer with Katie Franich: Linguistic Society of America Symposium on "Suitcase phonetics: Creating a portable phonetics laboratory" at the 2022 Linguistic Society of America Meeting
2021	Co-organizer LangVIEW International Summer/Winter School on Language Acquisition, Pedagogical Team
2020	Co-organizer Berkeley Linguistics Society Workshop (BLS 2020): Phonological Representations.
2019	Co-organizer 10 th Annual Computational Paralinguistics Challenge (ComParE): Interspeech 2019

2017 Organizer, Berkeley Women in Linguistics Working Group
 2017 Conference Organizer, Berkeley Linguistics Society (BLS42)
 2017 Conference Organizer, Institute for European Studies Conference

2016-2017 Organizer, Berkeley Phonetics & Phonology Phorum

Leadership

2021-2024 **Appointed Member**, Acoustical Society of America Speech

Communication Technical Committee

2017-present Board member and pre-Pl group organizer, DARCLE

(Daylong Audio Recordings of Children's Linguistic Environments)

Committees/Other

2022 **Member**, Search committee for Acoustical Society Speech

Communication Technical Committee Chair

2021 **Member** University of Maryland Language Science Center

taskforce on undergraduate education

2020 **Session Chair (Phonetics)**, Linguistics Society of America 2021

Annual Meeting

2015-2017 Alternate Representative, Graduate Student Assembly, UC Berkeley

Skills

Software Python, R, SQL, shell scripting, Praat (analysis, scripting), Git,

OpenSesame, LaTeX, Audacity, CLAN, Fieldwork tools (ELAN, FLEX)

Hardware Eyetracking (EyeLink 1000), Ultrasound (Edgetrak),

Wearable technologies (LENA, etc.)

Languages

Native English

Near-native Spanish, French Conversational Portuguese

Reading Catalan, Romanian (undergraduate coursework)
Research South Bolivian Quechua (coursework 2016-2017;

fieldwork 2017-present)

Ecuadorian Quechua, Yucatec Maya (graduate coursework)

Professional Affiliations

Acoustical Society of America Linguistic Society of America International Phonetic Association

Phi Beta Kappa