

Four Inclusive Practices for the Phonology Classroom

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1 Introduction

In seeking to make our teaching more inclusive and equitable, we can learn from theoretically-grounded literature on principles and research findings, often written by specialists in psychology or education, such as Brannon and Lin (2021) on the efficacy of two routes to increased student inclusion and improved academic outcomes, on the one hand reducing discrimination and on the other hand recognizing marginalized groups' histories and cultures. We can get ideas for our classroom practices by reading about what those in other fields have done, such as Dewsbury and Brame's (2019) guide for life-sciences teachers. But it can sometimes be hard to imagine how to apply principles, or how to adapt practices from a different field, so we also need concrete examples from our discipline. For phonology specifically, the literature on inclusive and equitable teaching is still small. With apologies to the authors of articles I haven't encountered yet, it includes the following: Lillehaugen et al. (2014) introduce a magnet-board system for phonetic symbols and phonological rules, designed to be used by sighted, blind, and visually impaired students; Zuraw, Aly, Lin and Royer (2019) present a grading system for phonetics and phonology designed to increase equity; Miller and Ann (2019) discuss ways to use comedy in the phonology classroom to challenge accent stereotypes; Sanders, Umbal and Konelly (2020) discuss several equity-driven innovations in phonetics/phonology course content; Miller (2021) addresses challenges for teaching phonology accessibly online; Kennedy's (2021) presentation at this workshop discussed how to tailor phonology teaching to a student body that is under exception pressure at this time. This article aims to contribute with four inclusive practices that phonology teachers may consider adapting to their courses: going beyond the land acknowledgement, going beyond basic language information, using author photos, and integrating spoken and sign languages.

2 Beyond the land acknowledgement

At many universities in the U.S., Canada, Australia, and New Zealand, the first day of class may begin with an acknowledgement of the Indigenous people(s) on whose ancestral lands the university is located. The chancellor's office at my university suggests the following text for events: "UCLA acknowledges our presence on the traditional, ancestral and unceded territory of the Gabrielino/Tongva peoples."¹ While this practice "work[s] against the daily erasure of Indigenous people", it has serious limitations and failings (Asher, Curnow & Davis 2018). Lambert, Sobo and Lambert (2021) discuss how a land acknowledgement on its own—that is, without acknowledgement of how the land was taken and without any call for change—can imply acceptance of the status quo and relegate Indigenous people to prehistory, presenting "a definitive apocalyptic vision of a world in which Indigenous sovereignty and land rights will not be recognized and will be claimed never to have really existed". After repeated exposure, students and faculty alike may come to see the land acknowledgement as a box-checking exercise that can be tuned out and that stands in place of meaningful reconciliation or reparation (Khelsilem 2014; Robinson & al. 2019; Vowel 2016). And the statement may not even be understood: international students, especially, may be unfamiliar

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¹ chancellor.ucla.edu/messages/acknowledging-native-peoples-ucla-events/

with terms such as *unceded* or *treaty* (the *ceded/unceded* binary being itself problematic, as Khelsilem discusses).

Miranda (2020) argues that at the very least, a land acknowledgement should include reminders of past and current struggles and “suggest ways to self-educate” for non-Indigenous listeners—and that the material should be refreshed periodically “to avoid oversaturation”. A small step in this direction is to substantively incorporate the land acknowledgement into the first day’s course material. In a linguistics course, the obvious way to do this is to discuss the local Indigenous language(s) in their cultural, political, and historical context. Depending on the course and its prerequisites, there are many points one could cover:

- (1) Points that could be covered on first day of class, in place of a simple land acknowledgement
 - name(s) the area’s Indigenous people(s) use for their people and language
 - inappropriate names used in the past, with acknowledgement that “Indigenous Peoples’ names in English [or another language of instruction] have evolved and are evolving” (Younging 2018, p. 102)
 - the pronunciation or phonetic transcription of those names
 - the relation of spelling to pronunciation, especially if it reflects the Indigenous language’s own orthographic system
 - how the language is currently used
 - if it is not used in daily life (sleeping languages), the history and current conditions behind this
 - current efforts at language reclamation or maintenance
 - place names that are from the language—a particularly salient link between language and land
 - resources for further reading
 - a level-appropriate phonology exercise

The example material in (2) is from the first day’s handout in an undergraduate Phonology II course.

- (2) Tongva [passage from beginning of class handout]
 - UCLA is located on the ancestral lands of the Gabrielino/Tongva/Kizh people. This land was never ceded through treaty.
 - All three names are widely used, with different spellings. Four different organizations represent the Tongva people and use somewhat different names—I’m not intending to support any one over the others by the choice of how to write the language name!
 - The Tongva language is not now spoken in daily life, but the Gabrielino-Tongva Language Committee (with assistance from UCLA’s Pam Munro) works to reawaken the language.
 - Especially if you’re new to L.A., I hope you’ll take a few minutes this week to learn the very basics of Tongva culture and history, including the history behind why the language is no longer spoken, which includes enslavement and land theft under Spanish rule, and continued forced labor under U.S. rule:
 - Wikipedia: en.wikipedia.org/wiki/Tongva
 - UCLA Newsroom article about contemporary Tongva educators: newsroom.ucla.edu/stories/ucla-project-reveals-invisible-presence-of-the-tongva
 - Beautiful multimedia LA Times story about Tongva language, culture, geography, history, and language reclamation work. Won LSA journalism award: www.latimes.com/projects/la-me-col1-tongva-language-native-american-tribe/

Photo is then provided from UCLA Newsroom site: Tongva education conference at Kuruvungna Springs in West Los Angeles.

- Is a Uto-Aztecan language—this family spans a large area of the Western U.S. and Mexico. Well-known family members include Shoshoni, Numu Tekwapu also known as Comanche, Hopi, and Nahuatl.
- Some local place names that come from Tongva (or maybe a closely related language—it's not always clear): Azusa, Cahuenga, Topanga, Tujunga

Singulars and plurals from Munro 1983 follow. Students break into small groups to develop an analysis of vowel alternations.

3 Beyond basic language information

When introducing an example from a new language in class, I used to state just the language family, number of speakers, and country or countries where the language originated or is widely spoken. But this leaves unchallenged the idea that language users, especially of marginalized languages, are there for linguists to extract data from. Davis (2017) has critiqued this extractive view and linked it to the colonial practices of looting physical objects for scholarship. Instead, we can give richer information that centers the people and their culture, history, and politics, providing at least a small counterweight to phonology's focus on analyzing the structure of transcribed words and phrases in a disembodied fashion.

What information to include is highly dependent on the language. If the language is no longer used in daily life, I now state the main causes of language attrition. These are not always obvious to students. For Indigenous languages in California, for example, students may already be aware of the role that forced residential schooling played in language suppression, but may not realize how common it was for communities, after being driven violently off their land, to be forced to share territory with speakers of other languages, so that English became a lingua franca. Merely stating the number of language users, as I used to, could contribute to the public misunderstanding that Davis (2017) discusses, whereby language attrition is seen a natural process or a simple, free choice by speakers—with negative consequences for language reclamation movements. And as Leonard (2017) discusses, linguists' near-exclusive focus on fluent language users is often at odds with a community's philosophy of what language is and what it is for. Stating the number of language users without context also obscures the complexities of language shift (Mufwene 2017; Mufwene & Vigouroux 2017) and may leave students assuming that the causes and context are always similar and don't need to be learned about anew in each case.

Other information that could be shared with students includes why a current name is used instead of an obsolete or incorrect name that was formerly used, and words used in English that come from the language.

To draw students' interest and make the information more vivid, I include (and credit) images that highlight language users' agency and perspectives, such as notable speakers (historical or contemporary, especially if they are known for their language-related contributions), events related to the language or people in the news, writing systems and old manuscripts, language immersion programs, art works, album covers, book and magazine covers, film stills, flags, statues, street scenes and street signs, and inventions. This can present challenges, as available photos often reflect an anthropological or touristic gaze; images produced by the people themselves are preferable. And one must also bear in mind cultural and religious restrictions on images, especially those of the deceased. Another challenge is that photos of easily identified notable speakers (e.g., on Wikipedia) skew heavily male; it can require a bit more digging to combat this skew.

I initially struggled with deciding which languages to provide this information for. At first I felt it would be strange to tell students what Arabic, Korean, or French is, when they are already well aware of these languages. But in the end it has become too difficult and arbitrary to draw the line between familiar and unfamiliar languages (on which side of the line should Thai fall? Polish? Bengali?), especially when the set of familiar languages is different for each student. I didn't want to give the impression that there are "ordinary" languages that don't require further explanation, and "exotic" languages that do, or that there is one set of languages that everyone should consider familiar. It's always possible to present some interesting context about even a major world language that every student is in fact familiar with.

You may be wondering how you could afford the extra time in class for this type of information. I've found that it only takes a few minutes each time, and is partly compensated by the time that students need

anyway to re-focus before plunging into a new set of examples—instead of spending that time tuned out from a new set of data, students can spend it tuned in to a different type of material. It does take *me* a fair amount of time to put together this information for a given language, but the next time I talk about the same language in another course, I can simply copy, paste, and update the material.

4 Author photos

There are many good reasons to assign and cite a diversity of authors in our courses. We want perspectives from marginalized groups—on many dimensions—to be heard. We want to combat the culture’s narrow stereotypes of who is an intellectual or a linguist. And we want to promote a sense of belonging—crucial to student success, as Strayhorn (2018) argues—among students who are themselves from marginalized groups (see Stout & al. 2011, Schinske & al. 2016 and references therein on the benefits of exposing students to counter-stereotypical examples of experts).

I’ve begun including photos of authors on my syllabi, lecture handouts, and lecture slides, as small insets, the height of three to four lines of text. This has also been advocated by Jenkins and Saul (2016). (Not all authors want their photos widely shared, so I generally take a photo from the author’s official website or a book jacket; if these are not available, I don’t include a photo for that author.) I do this for two reasons. First, even if I’ve been successful in assigning and citing a diversity of authors, students, seeing only the authors’ family names, may not realize this, and photos provide somewhat of a corrective. Of course photos can be misleading about the very aspects of identity we assume that they reveal, namely race and gender. And we don’t even expect photos to give us clues about all the other aspects of an author’s identity, including aspects highly relevant to the subject matter, such as whether the author of an analysis of sign language phonology is herself Deaf.² Despite all this, the reality remains that when author photos are included, a syllabus composed entirely of white, male authors will look strikingly different from one that is not. The photos also add some visual interest to handouts, and remind students that research is conducted by humans, with all the benefits and limitations that brings.

The second reason to include author photos is as a self-accountability tool that sometimes makes me dig a little deeper when deciding on readings. Instead of the first reading that comes to mind on a given topic, I may be prompted to also consider the second and third. Often they are at least as suitable, even if less cited. (See Bertolero & al. 2020; Dworkin & al. 2020 on racial and gender biases on citations, in a different field; see Kahneman 2013 for the idea that what comes to mind quickly is especially subject to stereotype and bias.) And when there is a strong underlying lack of author diversity in some topics, confronting a page of author photos may lead us to reflect on why this is: are these really the most essential topics to cover, or simply the most canonical? If female scholars and scholars of color are directing their energies elsewhere, that bears listening to.

5 Integrating spoken and sign languages

Looking through seven current introductory textbooks on my bookshelf yields a total of one sentence about sign languages. This reflects the reality that in phonology courses, sign languages are either omitted altogether or treated as a separate (and often, advanced) topic (Sanders, Umbal & Konelly 2020). Up until a couple of years ago, I was fully guilty of this behavior, including sign languages only in the occasional graduate seminar. Hochgesang (2019) discusses how this treatment of sign languages, besides its scientific undesirability, marginalizes Deaf people and Deaf cultures, and leaves hearing students with the impression that sign languages are peripheral. And it’s self-perpetuating, as most new linguistics PhDs graduate feeling unqualified to include sign languages in their teaching, and have few resources to draw on, in terms of the topics, examples, and problem sets found in textbooks and in course materials that have been posted online.

To break this cycle, and present sign and spoken languages on equal footing to our students, we need to regularly incorporate examples from sign languages into the topics we already cover. A module on sign language phonology early in the course could give students needed background, but what I’ve been doing

² A photo might normally be assumed to reveal age too, but an author’s age in their current photo may bear little relation to their age when they wrote the cited work, or even to their current age.

instead is spreading out sign-specific background throughout the course whenever it's needed to support an example.

There are some challenges to integrating spoken and sign languages in our teaching, which is part of the reason why it happens so seldom. First is the question of how to present data in class or an assignment. For spoken languages, we might use phonetic transcription, spelling, or romanized transliteration; we would use audio only as a supplement, since it's too fleeting and students need something static that they can inspect at their own pace. For sign languages, video is likewise too fleeting, and none of the existing transcription systems is widely used in linguistic literature and dictionaries. I have favored line drawings where available, and use moving video only as a supplement. Line drawings abstract away from irrelevant detail and draw the eye to the linguistically important aspects of a sign utterance, with helpful means of conveying motion, such as arrows. When line drawings are not available, photos or video stills are good alternatives. If a source gives only a gloss for a sign language word, often photos or videos to take stills from can be found in online dictionaries and documentation banks. See for example the ASL Signbank (aslsignbank.haskins.yale.edu, Hochgesang, Crasborn & Lillo-Martin 2019), Wikisign's index of dictionaries, organized by country of origin (lsf.wikisign.org/wiki/Langue:Signes_du_Monde)³, and Asian SignBank for several Asian sign languages, searchable by handshape (cslds.org/asiansignbank).

Another, related challenge is that books and articles describing a phenomenon in a sign language's phonology tend to include far fewer illustrated examples than a similar description of a spoken language's phonology would include transcribed examples. This is presumably because of how much space each image takes up, as well as the expense of producing line drawings. This can make it difficult to create problem sets, where students need a good-sized set of data to test their conjectures against. But for lectures I haven't found it to be a problem: just as with many spoken-language cases, we often need only two or three example words to get the point across.

You might object that for some phonology topics, there simply aren't suitable sign language examples available in the literature. I believe this is not a problem, and certainly not a reason to exclude sign languages entirely, because not every topic covered in a course has to include examples from both modalities.

The vicious cycle mentioned above, whereby lack of training in sign language phonology produces faculty unequipped to train the next generation in sign language phonology, creates another obstacle. Many instructors worry that we are not knowledgeable enough to do justice to sign language phonology and feel that it might be better to avoid the topic than to teach it poorly. A particular worry is how to strike the right balance between on the one hand teaching the similarities between spoken and sign languages, and on the other hand treating sign languages on their own terms, without forcing them into spoken-language categories. But we teach many topics we're not experts in, and inevitably simplify them in ways that a true expert might disagree with. Personally, I have never published research in articulatory phonetics, metrical stress theory, language production errors, lexical tone, or intonation, and yet I happily teach all of these topics, and many more that I have no research experience in. Reading a short overview such as Fenlon, Cormier and Brentari 2017 should equip the average phonologist to read and understand literature in sign language phonology—which anyway is generally written with readers in mind who may have little background in sign phonology—and begin collecting good examples to use in class. Eventually, some examples will begin to emerge as classics that everyone knows about, and future generations of phonology instructors will be able to integrate the two modalities with more confidence.

Some topics where I've found it was particularly easy to integrate spoken- and sign-language examples are listed in (3), with citations to some data sources I've used—these are *not* meant to represent the foundational or most important works on each topic, but rather those that contain data particularly suitable for use in class.

(3) Examples of topics conducive to integrating spoken and sign examples

- Minimal pairs, distinctive features (Dye & Shih 2006, Emmorey 2009, Morgan 2009, Goldin-

³ English table of contents available at lsf.wikisign.org/wiki/Langue:Signes_du_Monde/English_TOC, but not as easy to use

Meadow & Brentari 2015; for minimal pairs, almost any reference grammar of a sign language)

- Feature geometry (Sandler 1989)
- Autosegmental feature spreading (Tang & al. 2010)
- Phonotactic constraints (Sandler 2012; Eccarius 2011; Mandel 1979; Napoli & Wu 2003; Fenlon, Cormier & Brentari 2017)
- Syllables (Perlmutter 1992)
- Word-shape constraints triggering repair (Sandler 1999; Tang & al. 2010; Brentari 2011)
- Phonological phrases and intonational phrases (Nespor & Sandler 1999; Crasborn 2011; Brentari 2011)
- Intonation (Sandler 2004; Sandler 1999)
- Rule feeding (Padden & Perlmutter 1987)
- Differing rates of process application (van der Kooij 2002)
- Sociolinguistic variation (McCaskill & al. 2011; Tamminga, Fisher & Hochgesang 2019)
- Phonology acquisition (Karnopp 2002)
- Loanword adaptation (Cormier, Schembri & Tyrone 2008; Hendriks & Dufoe 2014)
- Diachronic change (Jantunen & Takkinen 2010; Eccarius 2011; Frishberg 1975)
- Language production errors (Klima & Bellugi 1979)

6 Conclusion

It's daunting to make big changes in our courses, and often there are so many big changes we'd already like to make that we don't have room for yet another. But the advice we often receive to start small applies here: if your upcoming course includes no sign language at all, you might set a goal of adding just one or two examples somewhere in the term. Next time you teach the course, add one or two more. (Only one of the five courses I regularly teach has fully reached the level of spoken-sign integration I'm hoping for; the other four are all in progress.) You could try adding richer context for just one language per handout or even per week; or adding author photos only when refreshing old materials and not when facing the larger task of preparing brand-new materials.

References

- Asher, Lila, Joe Curnow & Amil Davis. 2018. The limits of settlers' territorial acknowledgments. *Curriculum Inquiry*. Routledge 48(3). 316–334. <https://doi.org/10.1080/03626784.2018.1468211>.
- Bertolero, Maxwell A., Jordan D. Dworkin, Sophia U. David, Claudia López Lloreda, Pragya Srivastava, Jennifer Stiso, Dale Zhou, et al. 2020. Racial and ethnic imbalance in neuroscience reference lists and intersections with gender. *bioRxiv*. Cold Spring Harbor Laboratory 2020.10.12.336230. <https://doi.org/10.1101/2020.10.12.336230>.
- Brannon, Tiffany N. & Andy Lin. 2021. "Pride and prejudice" pathways to belonging: Implications for inclusive diversity practices within mainstream institutions. *American Psychologist*. US: American Psychological Association 76(3). 488–501. <https://doi.org/10.1037/amp0000643>.
- Brentari, Diane. 2011. Sign language phonology. In John Goldsmith, Jason Riggle & Alan C. L. Yu (eds.), *The handbook of phonological theory*, 691–721. 2nd edition. Blackwell Publishing Ltd.
- Cormier, Kearsy, Adam Schembri & Martha Tyrone. 2008. One hand or two? Nativisation of fingerspelling in ASL and BANZSL. *Sign Language & Linguistics* 11. 3–44. <https://doi.org/10.1075/sl&U38;l11.1.03cor>.
- Crasborn, Onno. 2011. The other hand in sign language phonology. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology. Volume 1: General issues and segmental phonology*, 223–240. Malden, MA and Oxford: Wiley-Blackwell.
- Davis, Jennifer L. 2017. Resisting rhetorics of language endangerment: Reclamation through Indigenous language survivance. *Language Documentation and Description* 14. 37–58.
- Dewsbury, Bryan & Cynthia J. Brame. 2019. Inclusive Teaching. *CBE—Life Sciences Education*. American Society for Cell Biology (Ise) 18(2). fe2. <https://doi.org/10.1187/cbe.19-01-0021>.
- Dworkin, Jordan D., Kristin A. Linn, Erin G. Teich, Perry Zurn, Russell T. Shinohara & Danielle S. Bassett. 2020. The extent and drivers of gender imbalance in neuroscience reference lists. *Nature Neuroscience*. Nature Publishing Group 23(8). 918–926. <https://doi.org/10.1038/s41593-020-0658-y>.
- Dye, Matthew W.G. & Shui-I Shih. 2006. Phonological priming in British Sign Language. In Louis Goldstein, D. H. Whalen & Catherine T. Best (eds.), *Laboratory Phonology* 8, 241–314. Berlin and New York: Mouton de Gruyter.

- Eccarius, Petra. 2011. A constraint-based account of distributional differences in handshapes. In Rachel Channon & Harry van der Hulst (eds.), *Formational Units in Sign Languages*, 261–284. 1st edn. De Gruyter. (1 January, 2020).
- Emmorey, Karen. 2009. The psycholinguistics of signed and spoken languages: how biology affects processing. In Gareth Gaskell (ed.), *Oxford Handbook of Psycholinguistics*. Oxford University Press.
- Fenlon, Jordan, Kearsy Cormier & Diane Brentari. 2017. The phonology of sign languages. In S. J. Hannahs & Anna Bosch (eds.), *The Routledge Handbook of Phonological Theory*. <https://doi.org/10.4324/9781315675428-16>. <https://www.taylorfrancis.com/>.
- Frishberg, Nancy. 1975. Arbitrariness and Iconicity: Historical Change in American Sign Language. *Language* 51(3). 696–719. <https://doi.org/10.2307/412894>.
- Goldin-Meadow, Susan & Diane Brentari. 2015. Gesture, sign and language: The coming of age of sign language and gesture studies. *The Behavioral and brain sciences* 1. 1–82. <https://doi.org/10.1017/S0140525X15001247>.
- Hendriks, Bernadet & Shelley Dufoe. 2014. Non-native or native vocabulary in Mexican Sign Language. *Sign Language & Linguistics* 17(1). 20–55. <https://doi.org/10.1075/sll.17.1.02hen>.
- Hochgesang, Julie. 2019. Inclusion of Deaf linguistics and signed language linguistics. Presented at the Georgetown University Roundtable (GURT), Georgetown University.
- Hochgesang, Julie, Onno Crasborn & Diane Lillo-Martin. 2019. *ASL Signbank*. New Haven, CT: Haskins Lab, Yale University. <https://aslsignbank.haskins.yale.edu>.
- Jantunen, Tommi & Ritva Takkinen. 2010. Syllable structure in sign language phonology. In Diane Brentari (ed.), *Sign languages*, 312–331. Cambridge: Cambridge University Press.
- Jenkins, Katharine & Jennifer Saul. 2016. How to incorporate diverse texts in your syllabus? *Diversity reading list in philosophy: How to incorporate diverse texts into your syllabus?* <https://diversityreadinglist.org/teach/> (24 January, 2022).
- Kahneman, Daniel. 2013. *Thinking, Fast and Slow*. 1st edition. New York: Farrar, Straus and Giroux.
- Karnopp, Lodenir Becker. 2002. Phonology acquisition in Brazilian Sign Language. In Gary Morgan & Bencie Woll (eds.), *Directions in sign language acquisition*, 29–54. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Kennedy, Robert. 2021. Phonology course design for the contemporary student. Presented at the Annual Meeting on Phonology, Toronto.
- Khelsilem. 2014. Khelsilem's Tips for Acknowledging Territory 1.0. *Liberated Yet?* <https://liberatedyet-blog.tumblr.com/post/106089801816/khelsilems-tips-for-acknowledging-territory-10>.
- Klima, Edward & Ursula Bellugi. 1979. *The Signs of Language*. Cambridge, Mass.: Harvard University Press.
- Kooij, Els van der. 2002. *Phonological Categories in Sign Language of the Netherlands: The Role of Phonetic Implementation and Iconicity*.
- Lambert, Michael C., Elisa J. Sobo & Valerie L. Lambert. 2021. Rethinking Land Acknowledgments. *Anthropology News* 62(6). <https://www.anthropology-news.org/articles/rethinking-land-acknowledgments/> (22 December, 2021).
- Leonard, Wesley Y. 2017. Producing language reclamation by decolonising “language.” In Wesley Y. Leonard & Haley De Korne (eds.), *Language documentation and description*, vol. 14, 15–36. London: EL Publishing. <https://escholarship.org/uc/item/6jm137h0>.
- Lillehaugen, Brook Danielle, Gabriela Echavarría Moats, Daniel Gillen, Elizabeth Peters & Rebecca Schwartz. 2014. A tactile IPA magnet-board system: A tool for blind and visually impaired students in phonetics and phonology classrooms. *Language*. Linguistic Society of America 90(4). e274–e283. <https://doi.org/10.1353/lan.2014.0074>.
- Mandel, Mark A. 1979. Natural Constraints in Sign Language Phonology: Data from Anatomy. *Sign Language Studies* 24(1). 215–229. <https://doi.org/10.1353/sls.1979.0006>.
- McCaskill, Carolyn, Ceil Lucas, Robert Bayley & Joseph Hill. 2011. *The Hidden Treasure of Black ASL: Its History and Structure*. Gallaudet University Press.
- Miller, Shelby. 2021. ADA compliance and teaching linguistics online. *Proceedings of the Linguistic Society of America* 6(2). 5095. <https://doi.org/10.3765/plsa.v6i2.5095>.
- Miller, Taylor & Jean Ann. 2019. Teaching phonology through comedy. Presented at the Manchester Phonology Meeting 27 fringe workshop on Teaching Phonology: The State of the Art, Manchester.
- Miranda, Deborah A. 2020. Bad NDNS: Land Acknowledgment: Why Do It? *Bad NDNS*. <https://badndns.blogspot.com/2020/02/land-acknowledgment-why-do-it.html>.
- Morgan, Mike. 2009. Typology of Indian Sign Language (ISL) Verbs from a Comparative Perspective. In Rajendra Singh (ed.), *Annual Review of South Asian Languages and Linguistics: 2009* (Trends in Linguistics, Studies and Monographs 222), 103–133. Berlin & New York: Mouton de Gruyter.
- Mufwene, Salikoko S. 2017. Language vitality: The weak theoretical underpinnings of what can be an exciting research area. *Language*. Linguistic Society of America 93(4). e202–e223. <https://doi.org/10.1353/lan.2017.0065>.
- Mufwene, Salikoko S. & Cécile B. Vigouroux. 2017. Individuals, populations, and timespace: Perspectives on the ecology of language revisited. *Language Ecology*. John Benjamins 1(1). 75–103. <https://doi.org/10.1075/le.1.1.05muf>.

- Munro, Pamela. 1983. Selected Studies in Uto-Aztecan Phonology. *International Journal of American Linguistics* 49(3). 277–298.
- Napoli, Donna & Jeff Wu. 2003. Morpheme structure constraints on two-handed signs in American Sign Language: Notions of symmetry. *Sign Language & Linguistics* 6. 123–205. <https://doi.org/10.1075/sll.6.2.03nap>.
- Nespor, Marina & Wendy Sandler. 1999. Prosody in Israeli Sign Language. *Language and Speech* 42(2–3). 143–176. <https://doi.org/10.1177/00238309990420020201>.
- Padden, Carol A & David M Perlmutter. 1987. American Sign Language and the Architecture of Phonological Theory. *Natural Language & Linguistic Theory* 5(3). 335–375.
- Perlmutter, David. 1992. Sonority and syllable structure in American Sign Language. *Linguistic Inquiry* 23. 407–442.
- Robinson, Dylan, Kanonhsyonne Janice C. Hill, Armand Garnet Ruffo, Selena Couture & Lisa Cooke Ravensbergen. 2019. Rethinking the Practice and Performance of Indigenous Land Acknowledgement. *Canadian Theatre Review*. University of Toronto Press 177(1). 20–30.
- Sanders, Nathan, Pocholo Umbal & Lex Konelly. 2020. Methods for increasing equity, diversity, and inclusion in linguistics pedagogy. In *2020 CLA Conference Proceedings*.
- Sandler, Wendy. 1989. *Phonological Representation of the Sign*. Dordrecht: Foris.
- Sandler, Wendy. 1999. Cliticization and prosodic words in a sign language. In T Alan Hall & Ursula Kleinhenz (eds.), *Studies on the phonological word*, 223–255. Amsterdam: John Benjamins.
- Sandler, Wendy. 2004. Sign language phonology. In William J. Frawley (ed.), *Oxford encyclopedia of linguistics*. Oxford University Press.
- Sandler, Wendy. 2012. The phonological organization of sign languages. *Language and Linguistics Compass* 6(3). 162–182. <https://doi.org/10.1002/lnc3.326>.
- Schinske, Jeffrey N., Heather Perkins, Amanda Snyder & Mary Wyer. 2016. Scientist Spotlight Homework Assignments Shift Students' Stereotypes of Scientists and Enhance Science Identity in a Diverse Introductory Science Class. *CBE—Life Sciences Education*. American Society for Cell Biology (lse) 15(3). ar47. <https://doi.org/10.1187/cbe.16-01-0002>.
- Stout, Jane G., Nilanjana Dasgupta, Matthew Hunsinger & Melissa A. McManus. 2011. STEMing the tide: using ingroup experts to inoculate women's self-concept in science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology* 100(2). 255–270. <https://doi.org/10.1037/a0021385>.
- Strayhorn, Terrell. 2018. *College Students' Sense of Belonging*. <https://doi.org/10.4324/9781315297293>.
- Tamminga, Meredith, Jami Fisher & Julie Hochgesang. 2019. Weak hand variation in Philadelphia ASL: a pilot study. *UPenn Working Papers in Linguistics* 25(2).
- Tang, Gladys, Diane Brentari, Carolina González & Felix Sze. 2010. Crosslinguistic variation in the use of prosodic cues: The case of blinks. In Diane Brentari (ed.), *Sign languages*, 519–541. Cambridge: Cambridge University Press.
- Vowel, Chelsea. 2016. Beyond territorial acknowledgments. <https://apihtawikosisan.com/2016/09/beyond-territorial-acknowledgments/>.
- Younging, Gregory. 2018. *Elements of Indigenous Style: A Guide for Writing By and About Indigenous Peoples*. Edmonton, Alberta: Brush Education.
- Zuraw, Kie, Ann M Aly, Isabelle Lin & Adam Royer. 2019. Gotta catch 'em all: Skills grading in undergraduate linguistics. *Language: Teaching Linguistics* 95(4). e406–e427.