One of your research interests is exploring universals in language. What fundamental features do signed and spoken languages have in common?

All languages have layers of structure, starting with a limited set of minimal contrastive formational features (sound contrasts in spoken languages; contrasts in handshapes and movements in signed languages) that combine into words, which then combine to form a potentially infinite number of sentences. This kind of grammatical productivity is found in both spoken and signed languages.

What misconceptions about signed language do people often have? What do you want them to know?

Research on sign language challenges the idea that speech is unique as the basis for human language. While many people have thought that language is what sets humans apart from animals, this has usually been attributed to the ability of speech to map arbitrary sounds to meaning, allowing one to convey abstract ideas. People have argued that nonverbal gesture is limited in its ability to express thoughts. However, the emergence and evolution of complex sign languages from these gestural roots shifts the definition of language to include any open-ended symbolic system for human communication, in either the auditory or visual mode.

How has our understanding of signed language changed over time?

People used to think signed systems were not languages, [that] they were pantomime or simple codes representing the surrounding spoken language. Then, starting 50 to 60 years ago, linguists began to show
that sign languages were actually independent languages with structures of their own. This early research focused on the most basic properties of American Sign Language, showing, for example, that signs are composed of combinations of the features of location, movement, handshape, and hand orientation. Subsequent research has shown that mature sign languages (those with a long history of use among Deaf people) have much more complex structures at all levels, and that young sign languages in earlier stages of development can be studied to provide important information on how complex, mature languages develop over time.

**You recently launched a massive open online course (MOOC). What drew you to the MOOC format? Have you noticed any particular advantages or disadvantages of teaching that way?**

I appreciate that the MOOC format allows me to integrate introductory to advanced information about the structure and history of signed languages with instructional materials I have developed for upper-level undergraduate courses such as Brain and Language and the Structure of ASL for the departments of cognitive science, linguistics, and ASL at various universities. The MOOC format permits me to combine my lectures (in American Sign Language — since I am a native signer myself — and English voiceover with captions too) with PowerPoint slides outlining and illustrating what I am lecturing about, links to movies and demos of the material I am discussing, and homework exercises to give students practice in seeing the structure of signed languages. This multimedia format provides a rich learning environment, especially for the many interested students who are unfamiliar with such materials.

The overall point I want to convey to students is how languages — in this case, visual–manual languages — evolve over time to fit the human mind. I have therefore designed my MOOC as a vehicle for students to understand this point gradually, just as language learners develop their understanding — from the way novice signers first master word formation to the increased linguistic complexity that generally requires learning the language from childhood to achieve native competence. The multimedia technology of the MOOC can easily be combined with design principles for building incremental problem-solving heuristics through the course, to take students from simple aspects of sign language structure to much more complex design questions.

We have designed the course so that students from diverse backgrounds can all participate in this journey. Our students run the gamut from those who are native sign-language users to those who are not signers but are interested in learning about different languages of the world. The Sign Language Structure, Learning, and Change MOOC is hosted on the [GeorgetownX site](http://www.georgetownx.org).