Perceptual color experience is universally appealing – without it our visual lives would consist of monochrome shades of gray. But despite many similarities, a number of linguistic societies categorize and apply meaning to perceived color in ways that differ from the familiar associations learned by English language speakers. This raises the question: What are the cognitive factors that influence the assignment of linguistic categories to conceptual domains such as everyday color experience? This is a central question in the research program of Kimberly A. Jameson, associate project scientist in the Institute for Mathematical Behavioral Sciences, U.C. Irvine.

“How we individually classify color depends on, among other things, the uses and importance of color in our everyday visual processing environments,” she says, “and the ways different societies of people develop meaning systems on the rather uniform domain of color perception can tell us a lot about cognition, communication, perceptual processing and environmental color salience and utility.”

In May, Jameson was awarded a $46,616 grant from the UC Pacific Rim Research Program to compile data and study variations in color categorization among Pacific Rim cultures. This region is of particular linguistic interest, says Jameson, and is in the spotlight because an archive of raw data by the late cognitive anthropologist, Dr. Robert E. MacLaury, will through this project be made accessible for the first time to the general research community. This unique archive includes the Mesoamerican Color Survey, which draws from interviews with 900 speakers of some 116 Mesoamerican languages. With UC funding and newly granted access to MacLaury’s archive, Jameson, Paul Kay and Richard S. Cook, of the International Computer Science Institute at UC Berkeley, will lead the effort to create a publically accessible, analyzable database of MaLaury’s color survey.

“Some of MacLaury’s data collected from 1978-1981 are irreplaceable since the tentacles of global media have greatly diminished societies of monolingual native language speakers,” says Jameson. “Access to his data is therefore very valuable.”

The resulting extensive web accessible database will be made available to scientists alongside the existing World Color Survey database. The World Color Survey (2005, 2009) and its sister publication Basic Color Terms: Their Universality and Evolution (1969) by Brent Berlin and Paul Kay, are currently the most cited references for color categorization, and, according to experts in cognitive anthropology, may be the most influential research of the last fifty years carried out by social anthropologists.

“In general, large-scale cross-linguistic comparisons of cognitive representation of meaning are often difficult to undertake because of the rarity of this kind of data. Pairing the World Color Survey with this new database will make available, in digital format, a mountain of data to interdisciplinary researchers of color categorization, naming and cognition,” she says.

The project began in July and is planned for completion in July 2013. The online database will be digitized and compiled by Jameson, Kay and Cook, and will be hosted by the International Computer Science Institute at UC Berkeley, allowing researchers worldwide to examine a variety of new comparisons concerning color concept formation and categorization behaviors across several Pacific Rim linguistic cultures.

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