

## **LANGUAGE CONTACT IS PART OF LANGUAGE EMERGENCE: NOUN PHRASE ORDERING IN NICARAGUAN SIGN LANGUAGE**

MOLLY FLAHERTY<sup>\*1</sup>, SAVITHRY NAMBOODIRIPAD<sup>2</sup>, AND SUSAN GOLDIN-MEADOW<sup>3</sup>

<sup>\*</sup>Corresponding Author: moflaherty@davidson.edu

<sup>1</sup>Department of Psychology, Davidson College, Davidson, USA

<sup>2</sup>Department of Linguistics, University of Michigan, Ann Arbor, USA

<sup>3</sup>Department of Psychology, The University of Chicago, Chicago, USA

Research on language emergence typically conceptualizes the birth of grammatical structure in a vacuum, i.e., an environment free of other languages. New languages, however, are not born in petri dishes. Here we consider a case of potential language contact between a new sign language in Nicaragua and the spoken language with which it cohabitates: Spanish.

We investigated noun phrase (NP) ordering in three successive cohorts in Nicaraguan Sign Language (NSL): Cohort 1, who came together in the 1970s and first formed NSL; Cohort 2 and Cohort 3, who were exposed to NSL upon school entry 1986-1998. We showed participants a series of cards depicting sets of objects (e.g., dogs, cars). Set size varied 1-4, and objects were either large or small. Participants described each card, and we classified their descriptions by the ordering of NP elements. Data was collected in 2009 (N=6) and 2015 (N=24, including the original 6).

Both lab-based artificial language learning studies (e.g., Culbertson et al., 2012) and cross linguistic data (see Dryer, 2008) indicate that adults prefer harmonic noun phrase ordering patterns, where adjective and number are expressed either both prenominally or both postnominally. In agreement with these findings, in 2009, we found that Cohort 1 and Cohort 2 signers produced harmonic orders (either noun-adjective-number or noun-number-adjective), with no significant difference between cohorts. In 2015, the pattern was the same for Cohort 1, who still preferred harmonic orders. Unexpectedly however, Cohort 2 signers increased their use of the non-harmonic number-noun-adjective order, which was also the preferred order for Cohort 3 signers. The preference for non-harmonic

order increased significantly with cohort ( $\beta=-5.24$ ,  $p<.02$ ). This means in 2015, *individual signers* in the second cohort moved away from the harmonic pattern they displayed in 2009.

We propose language contact as an explanation for this unanticipated shift. This situation meets Thomason (2001)'s criteria for establishing contact-induced change: there is no language-internal motivation for this shift, word order is a highly borrowable linguistic feature (Bickel & Hickey, 2017; Thomason & Kaufman, 1988), and the order of nouns, numerals, and adjectives in NSL in 2015 matches Spanish order. The shift's rapidity has precedent in other dynamic contact contexts; Fortescue (1993) found Native Alaskan languages under pressure from English went from being flexible SOV to rigidly SVO within two generations.

We are currently in the preliminary stages of further investigating potential language contact between NSL and Spanish during the period 2009-2015. By interviewing community members about their experiences with written Spanish (in the form of text messaging and social media use) over this period, we will probe the degree to which Spanish use may have changed at the time of the shift. Should we find that signers' use of written Spanish increased during this period, this will strengthen our case for language contact. In addition, we hypothesize that differences in patterns of Spanish use could explain why Cohort 1 did not shift toward the Spanish order as Cohort 2 did.

By combining interviews about language use and ideology with experimental data, we draw on the approach advocated by Hou & de Vos (2021), who emphasize a need for situating longitudinal data on language structure with details about sociolinguistic contexts of learning and use. In this view, centering variation and dynamics is a way to move away from essentialist claims about particular languages. Further, contact between spoken and signed languages is an ideologically charged area. As communities fight for recognition and access to signed languages, there is substantial pressure to establish that signed languages are not just "Spanish on the hands" (e.g., Rhodes 2020). We argue this is due to deficit models towards multilingualism and language contact, which are present in society at large and also reflected in linguistics and language emergence research. Ignoring the multilingualism of signers, as well as the range of semiotic resources available to signers as they "language" across contexts (e.g., Moriarty Harrelson, 2019) does not serve to give an accurate picture of how conventions emerge and change in languages such as NSL (cf. Ansaldi, 2017). As language contact is the norm around the world, we seek to open a discussion of what we can gain by bringing language contact to the center of our models of language evolution.

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