Bilingual Language Development: Does learning the New damage the Old?

Ioulia Kovelman & Laura Ann Petitto

Society for Research in Child Development

Objectives: The idea of introducing a child to a new language different from that spoken in the home, often puts fears into the hearts of parents and educators who think that the addition of a new language ("New") might damage or "intrude" on the grammatical structure and/or "contaminate" the child's native home language ("Home"). We asked about both sides of the coin: First, is the Home language damaged by the New language? Second, does the New language progress well and, crucially, is this tied to key maturational ages when the New language exposure first began? We already know that babies exposed to two languages from birth progress equally well in both languages (Petitto et. al, 2001, JCL) but what happens if bilingual exposure comes later in development?; here, does progress in the New language necessarily result in a decrement in the Home language?

Subjects & Methods: Bilingual children exposed to two languages at key ages corresponding to major periods of maturational brain growth: Exposure to a New language from ages 2-3 (group i), 4-6 (group ii), and 7-9 (group iii). Three cross-linguistic populations were: French & English, Russian & French, Spanish & French (N=9, over 6 months). Analyses included: (a) evaluation of children's Home language for presence of "damage" or error-causing "intrusions" from the New language (i.e., words and utterances in the Home language that resulted in speech *errors* induced by the phonological or grammatical structure of the New language), and (b) comparison of the

bilingual children's distribution of morphosyntactic speech categories in *each* of their languages (Home and New), *over time*, with that of standard adult native distributions.

Results: (a) Damage to Home Language? Only half the children showed presence of error-causing "intrusions" from the New language into their Home language. Crucially, the number of utterances per child was extremely low (0.5% of the utterances the child produced over the study's 6 months). Remarkably, children's distribution of morphosyntactic speech categories in their Home language matched those of standard adult distributions (for that particular Home language), remaining so throughout. Thus, we found no evidence of damage to the Home language resulting from exposure to a New language. Fig 1a shows the similarity between adult Spanish speakers and children with Spanish as their Home language while acquiring French.

(b) New Language Progression and Impact of Age? All children demonstrated a rapid progression in their acquisition of fundamental morphosyntactic speech categories in their New language, some after 6 months (Fig 1b), and regardless of the age when the New language was first introduced.

Conclusions: Bilingual children demonstrated native-like distributions in each of their two languages. New language acquisition does not necessarily damage normal development of a Home language. Children's comparable acquisition of two languages is biologically plausible. The asymmetries often noted in bilingual children's two languages are not due to the brain's processing limitations, but are due to other factors (e.g., unequal frequency of exposure/use of one language over the other).

Figure 1a.

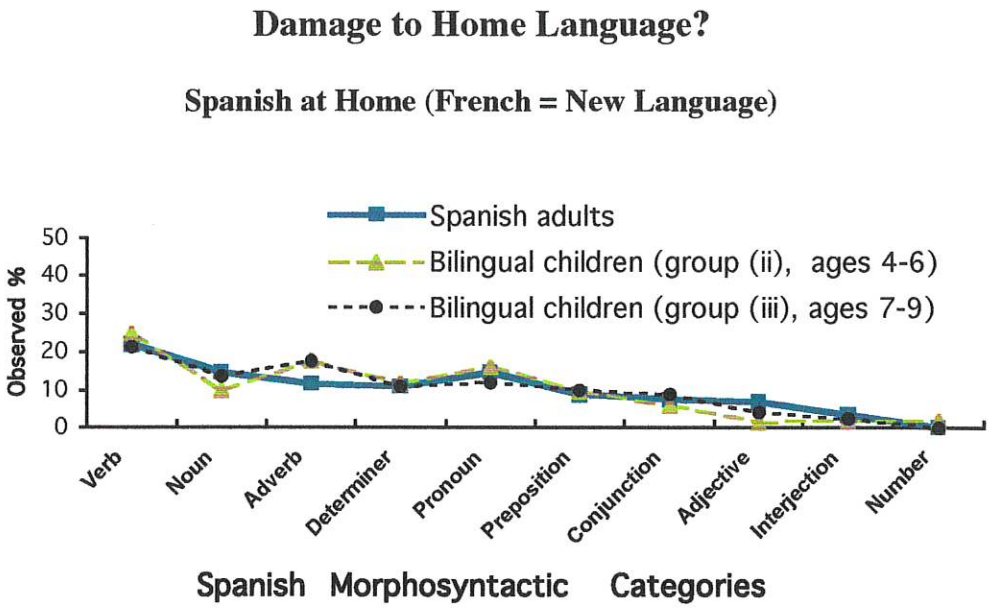

Figure 1b.