

Core cognition and learnability: A possible explanation for cross-linguistic similarities

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Languages regularly contain grammatical categories with a semantic basis in 'core' concepts (Spelke & Kinzler, 2007) such as the basic distinctions between male/female, human/non-human, and animate/inanimate (WALS, 2018). Here we explored the possibility that linguistic rules based on core distinctions are easier to acquire than those based on non-core distinctions, and therefore they are more likely to appear cross-linguistically. To test this, native English speaking and native Chinese speaking participants were tasked with learning grammatical markers for plural endings, pronouns, or determiners in an artificial language learning paradigm. These markers could map either onto core distinctions (animate/inanimate, human/non-human, male/female) or non-core distinctions (e.g. vehicles/non-vehicles, furniture/non-furniture). We found that participants more readily acquired artificial grammatical distinctions that mapped onto 'core' semantic distinctions than those that mapped onto non-core distinctions. These results suggest that cross-linguistic grammatical regularities may be rooted in more basic cognitive distinctions that are common across the human species.