Isaac Newton

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Gorenflo, L. J., Suzanne Romaine, Russell A. Mittermeier, and Kristen Walker-Painemilla
2012 Co-Occurrence of Linguistic and Biological Diversity in Biodiversity Hotspots and High Biodiversity Wilderness Areas. Proceedings of the National Academy of Sciences of the United States of America 109(21):8032-8037.

In this article Romaine and her colleagues builds upon work she has already done concerning biolingusitic diversity. Her 2000 book, *Vanishing Voices,* discusses the relationship between linguistically diverse and biologically diverse places and corresponding relationships between places with high rates of endangered languages and endangered species. However, *Vanishing Voices* does not use any sort of statistical analysis to articulate this perceived relationship. This article bolsters the argument of co-occurrence of linguistic and biological diversity through statistical analyses.

To determine endangerment of languages researchers established thresholds of 10,000 and fewer speakers and 1,000 and fewer speakers. Then they compared the number of languages per region with total vascular plant species per region yielding a positive relationship. Linear regression shows a weak, yet significant relationship with a Pearson's r value of 0.33 and a significant Spearman's coefficient with a r_p value of 0.40. Similarly significant positive relationships were found when comparing the number of endemic languages and endemic vascular plant species with a Pearson's r of 0.28 and a Spearman's r_p of 0.30.

This article supports Romaine's 2000 hypotheses by showing their statistical significance. This is one step further toward describing and defining a highly criticized, academically stigmatized, meaningful relationship.