

Network Analyses for Cross-Cultural Music Popularity

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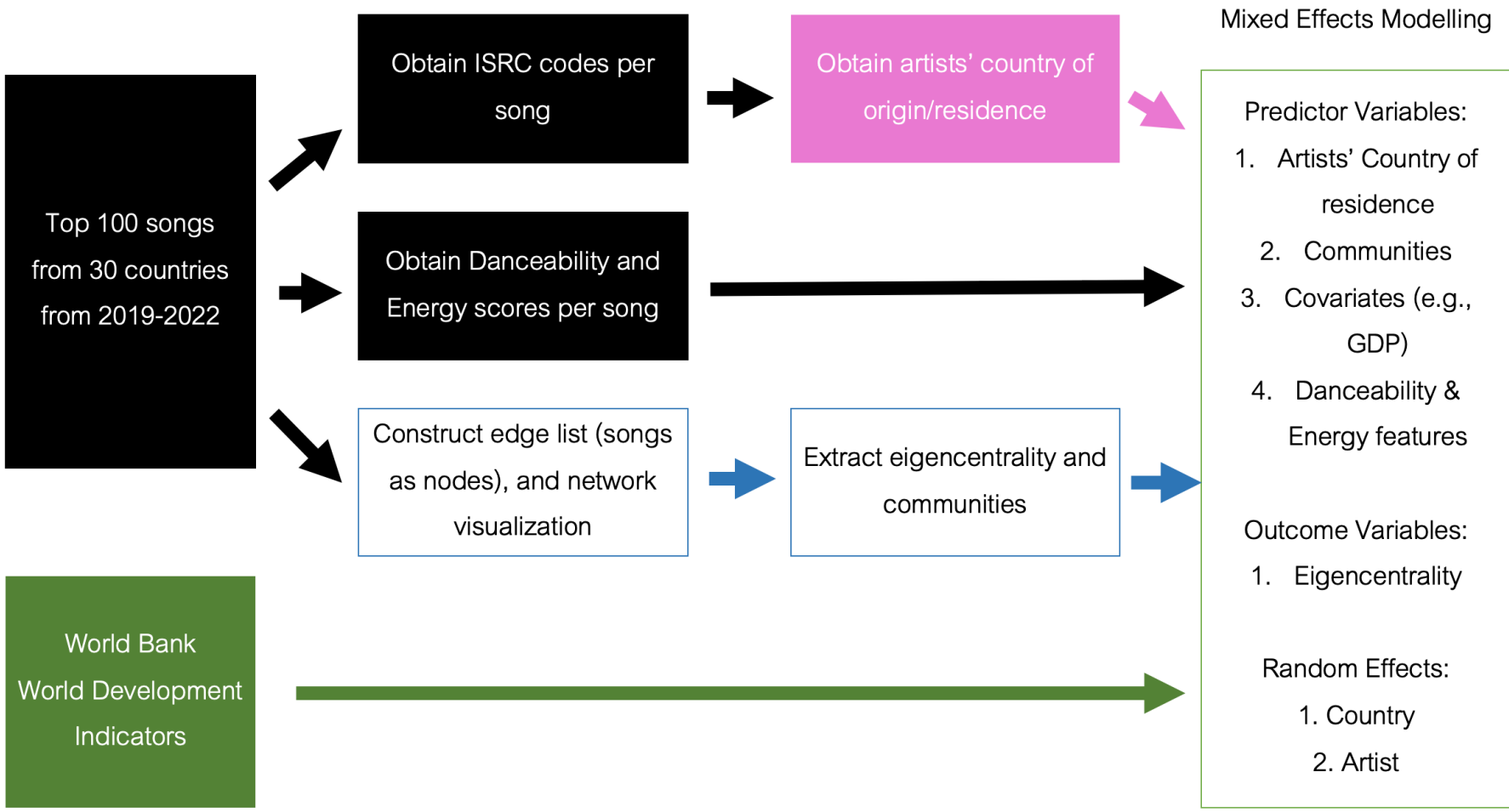
Background

- How do songs become international hits? Past research suggests that one answer is simply being based in America and singing in English.
- But, how can we quantify such influences** – how do we even estimate cross cultural popularity?
- We use network analyses **to model cooccurrence** of songs on country charts around the world, where centrality can **represent cross-cultural popularity**
- We then compare these against **socioeconomic explanations** (e.g., GDP, migration) and **music features** (e.g., rhythmic & intensity arousal)

- Top 100 charts from Deezer play counts for 30 countries
- N = 16998 songs; 4863 unique, 1001 artists

Cultural Region	Chart Country	Country-of-Origin
African-Islamic	*UAE, Saudi Arabia, Turkey, South Africa	*Bahrain, *Morocco, Lebanon, *UAE, Saudi Arabia, Egypt, *Syria, South Africa, Iraq, Nigeria, Turkey, Algeria, Uzbekistan, Iran, Azerbaijan, *Kazakhstan, *Kuwait, Tunisia, Jordan, Palestine, *Congo, *Yemen, *Congo
Catholic-Europe	Croatia, Hungary, Poland, Austria, Belgium, Spain, France, Italy, Not Applicable	France, Italy, Belgium, Spain, Austria, Croatia, Slovenia, Hungary, Poland, *Greece, Portugal, South Korea, Japan
Confucian (Asia)	Not Applicable	United Kingdom, United States, Canada, Australia, *New Zealand, *Ireland
English-Speaking (Anglo-American)	Australia, Canada, *Ireland, United Kingdom, United States	Colombia, Philippines, *Puerto Rico, Argentina, Uruguay, Chile, *Panama, Venezuela, *Dominican Republic, Peru, *Tanzania, Brazil, Mexico, Guatemala
Latin America	Argentina, Brazil, Chile, Colombia, Guatemala, Mexico	*Lithuania, *Kazakhstan, Bosnia and Herzegovina, Ukraine, Romania, Serbia, Bosnia, Belarus, Bulgaria, Russia, Armenia, Netherlands, Sweden, Norway, Germany, Switzerland, Denmark, Iceland, Finland, Estonia, Israel, Vietnam, Malaysia
Orthodox-Europe	Russia, Ukraine	
Protestant-Europe	Switzerland, Germany, Denmark, Finland, Netherlands	
West-South Asia	Not Applicable	

Methods

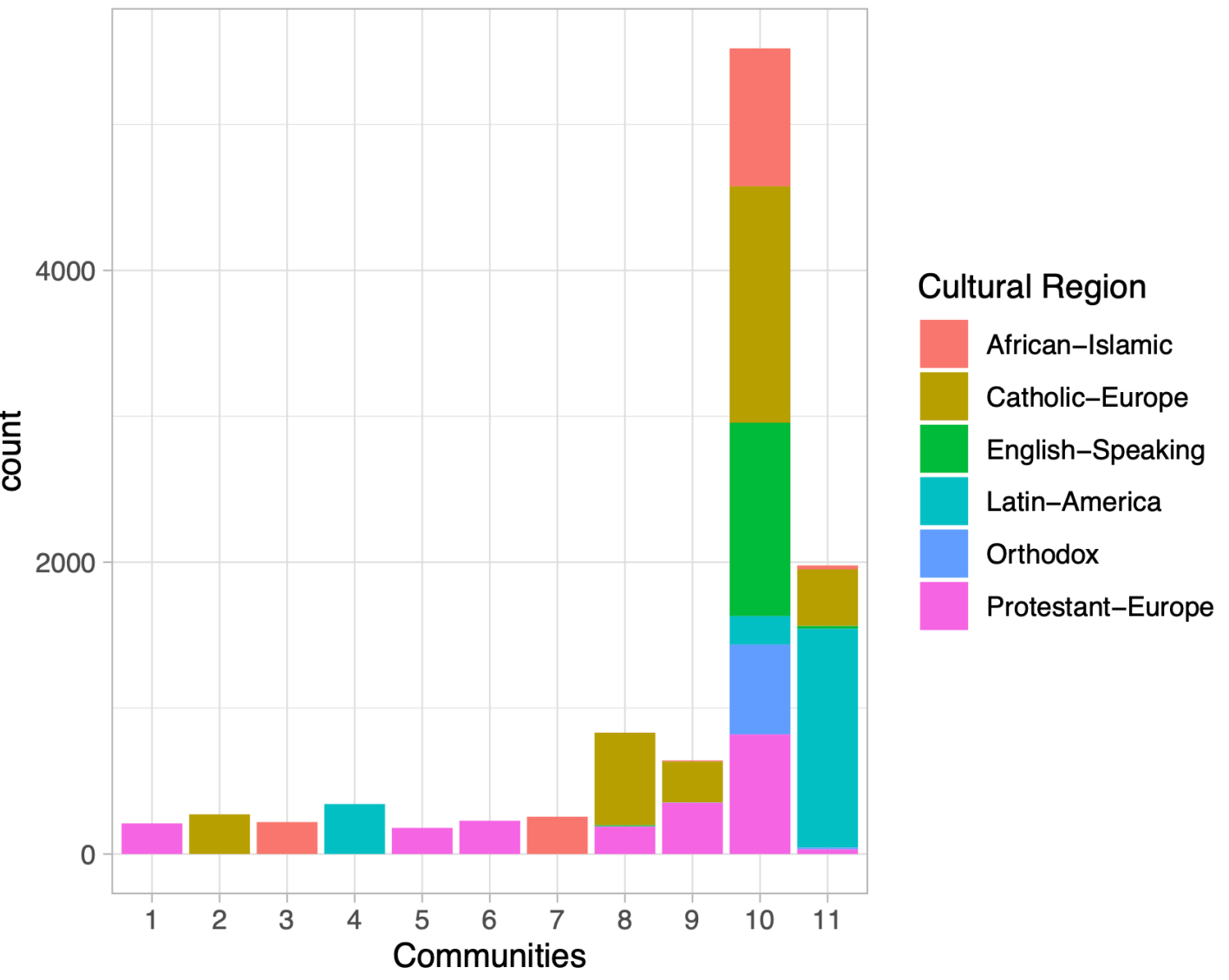


Anglo-American dominance in popular music remains unmatched around the world

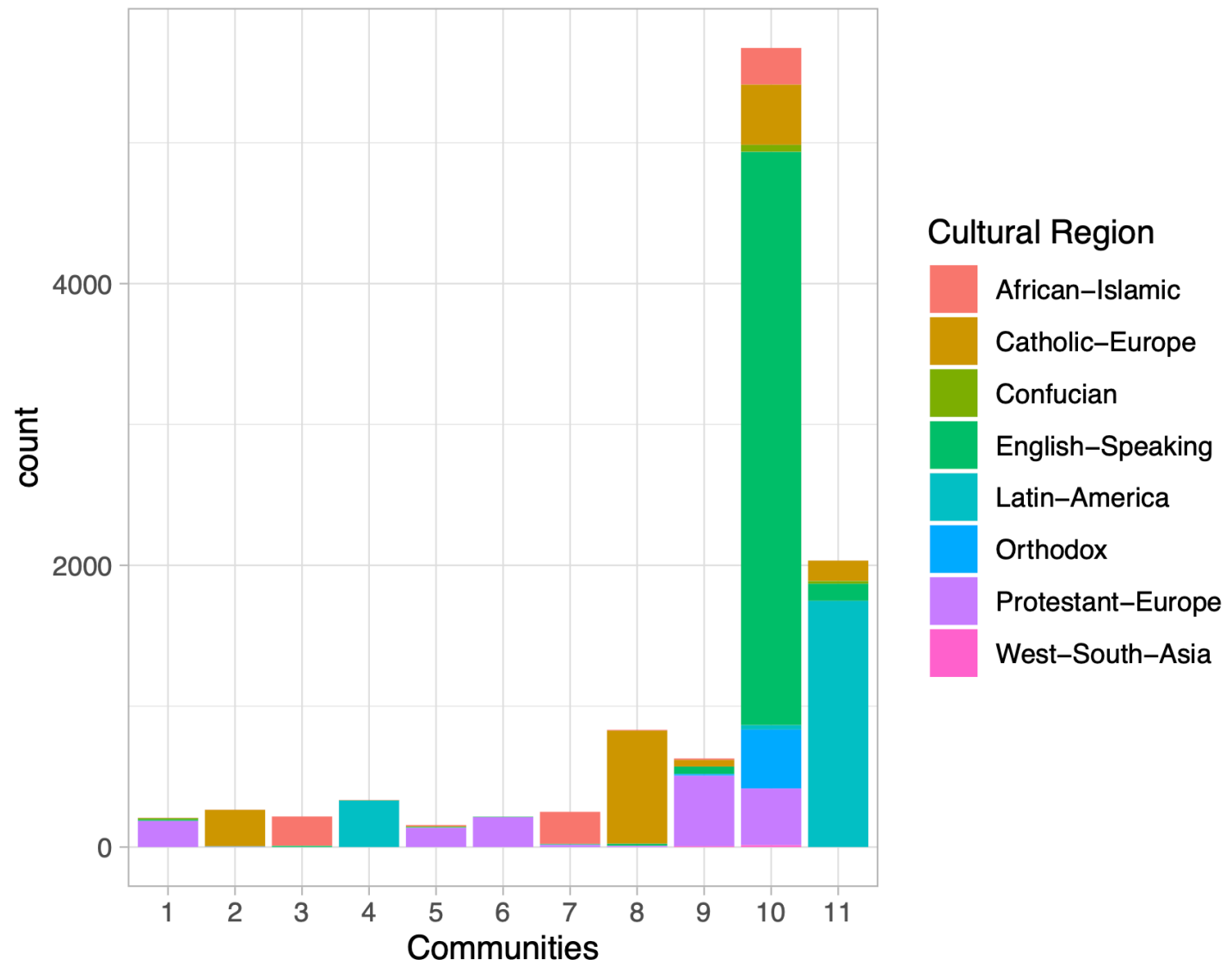


Results

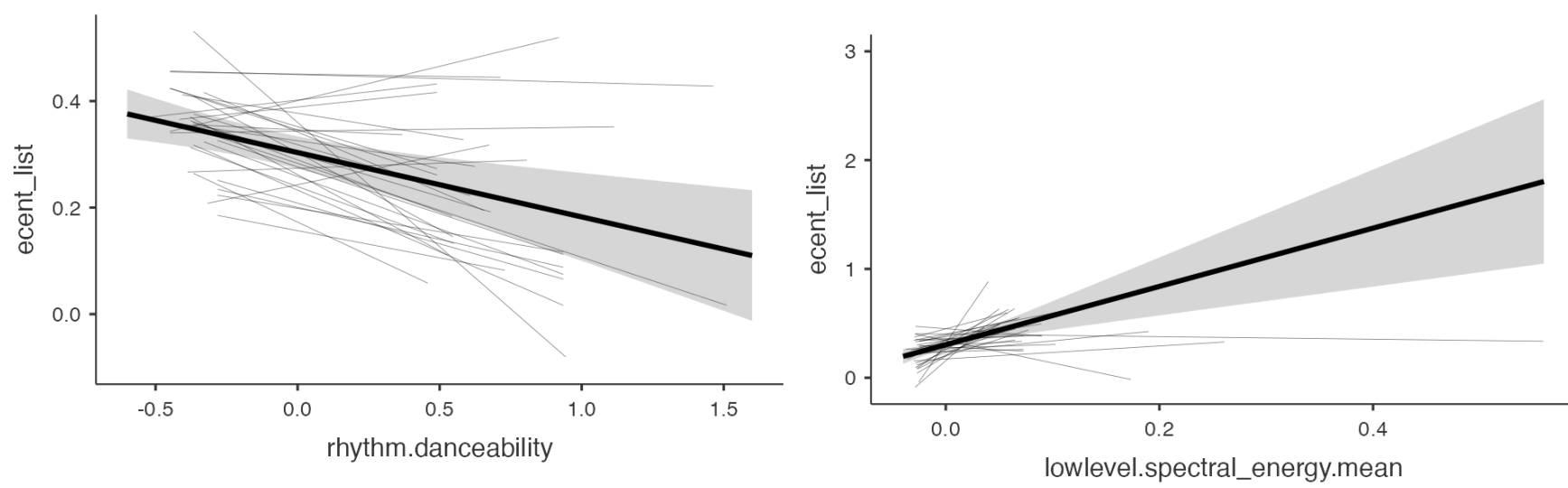
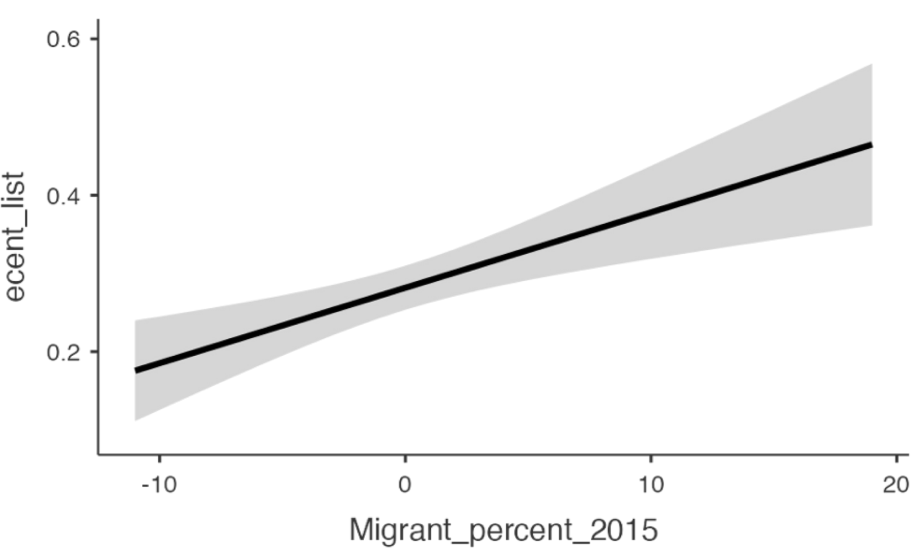
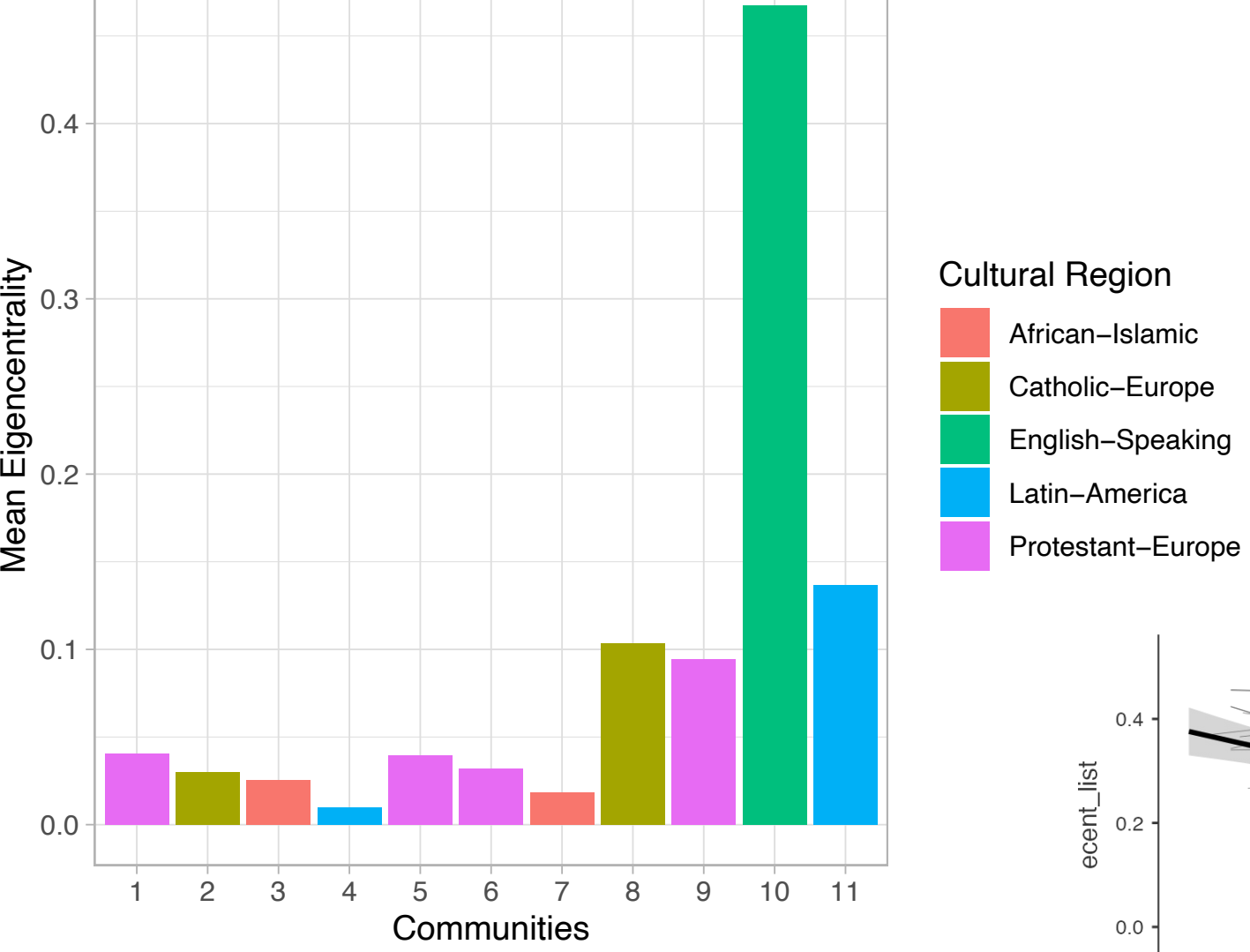
Chart distribution within communities



Origin-country distribution within communities



Mean eigencentality per community



Discussion

- Estimated cross-cultural popularity using network centrality
- Disproportional cross-cultural influence of songs from English-speaking cultures (e.g., USA, UK) across most cultures
- Appears linked to immigration:
 - Cultural attitude of freedom/diversification of consumption and creativity?
 - Incidental correlation?
- Regional influence appears more limited but present
 - E.g., C9 comprises German artists, and is most consumed in Austria, Germany, and Switzerland.
 - C11 comprises songs mostly on Latin American charts, but artists tend to be from Puerto Rico or Colombia
- Reflection of cultural hegemony – can the pervasiveness of English-language (US) culture overwrite traditionalism given that music reflects local culture
- Conceptual differentiation of intensity (energy) vs rhythmic (danceability) arousal in predicting song popularity?

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