

# Look who's talking

Language, segregation & networks

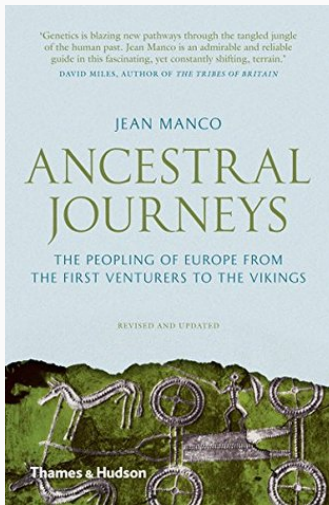
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# Roadmap



- Why look at language?
- Language adoption
- Returns to language

# Language, culture and networks (in economics)

- Early economic literature on segregation (Schelling, 1969)
- Acquaintances more important for job-seeking than friends (Granovetter, 1973)
- Language and culture in economics (Lazear, 1999; Guiso et al., 2006; Alesina and Giuliano, 2015; Ginsburgh and Weber, 2020)

## **The Strength of Weak Ties<sup>1</sup>**

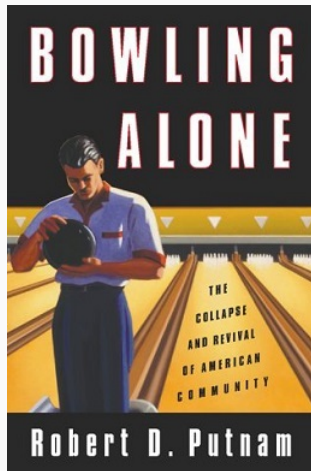
Mark S. Granovetter

*Johns Hopkins University*

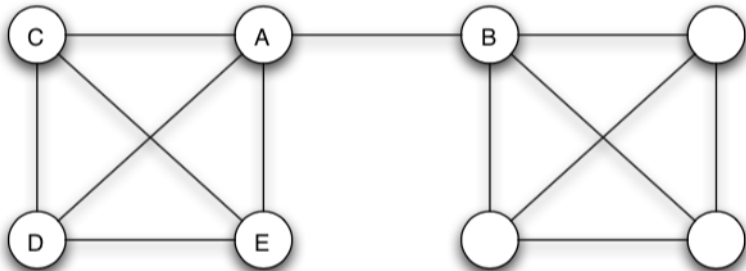
Analysis of social networks is suggested as a tool for linking micro and macro levels of sociological theory. The procedure is illustrated by elaboration of the macro implications of one aspect of small-scale interaction: the strength of dyadic ties. It is argued that the degree of overlap of two individuals' friendship networks varies directly with the strength of their tie to one another. The impact of this principle on diffusion of influence and information, mobility opportunity, and community organization is explored. Stress is laid on the cohesive power of weak ties. Most network models deal, implicitly, with strong ties, thus confining their applicability to small, well-defined groups. Emphasis on weak ties lends itself to discussion of relations *between* groups and to analysis of segments of social structure not easily defined in terms of primary groups.

# Inclusion, identity & conflict

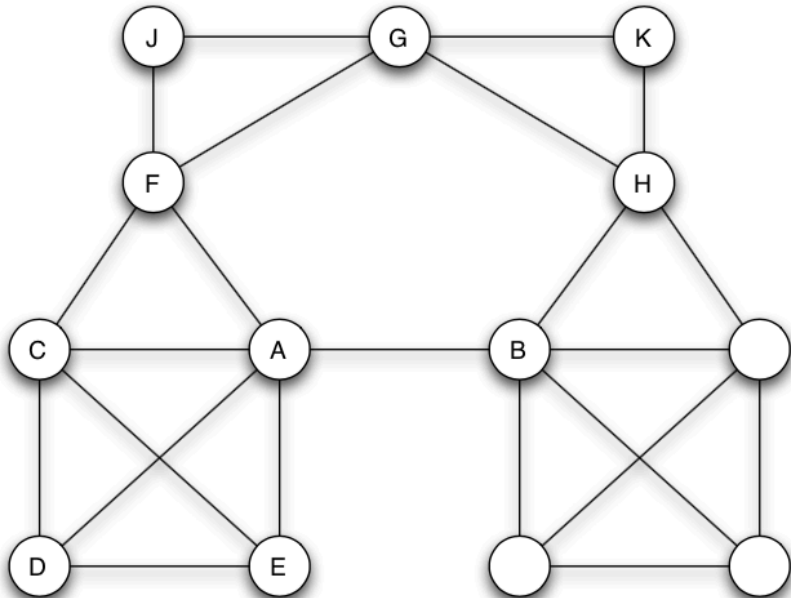
- Pierre Bourdieu
  - Social capital: “a durable **network** of more or less institutionalized relationships of mutual acquaintance and recognition”
- Robert Putnam
  - **bridging** capital
  - **bonding** capital



## Networks and bridges



Realistically there is a local bridge



# Dyads and triads

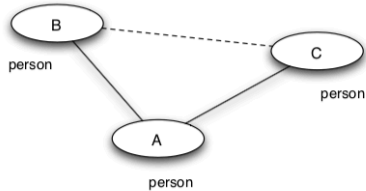
In empirical (migration) literature: **dyads**—being a group of two things/people/firms:

- origin-destination
- push & pull factors
- gravity models with distance-decay

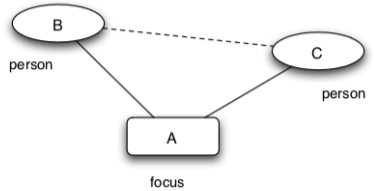
In network theory: **triads**—being a group of three things (persons):

- cycles (as opposed to dyads)
- network formation

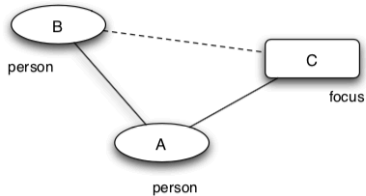
# Triads can have closure



(a) *Triadic closure*



(b) *Focal closure*



(c) *Membership closure*



## Which leads to **homophily** (Manski, 1993)

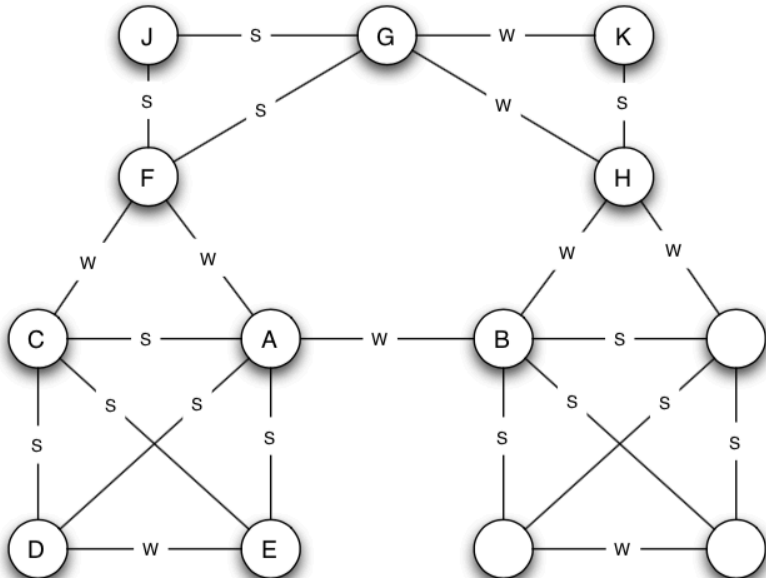
Birds of a feather flock together—three factors at work which are very difficult to identify:

- Social interaction (**endogenous** effect)
- Selection (**exogenous** effect)
- Contextual (**confounding**) effect

Example: native language adoption of immigrants

- Do immigrants learn a native language because their peers do?
  - triadic closure
- Do language learners seek others company
  - sorting/self-selection (based upon unobservables?)
- Do contextual effects invoke some groups to adopt a language
  - Local school subsidies

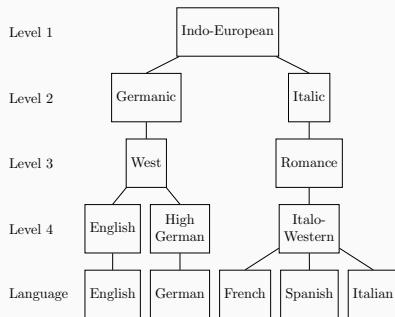
# Homophily, weak and strong ties



# Why bother with language?

Language facilitates economic exchange

- Common language increases international trade with 20% (Groot et al., 2004) to 50% (Melitz, 2008)
- Linguistic common roots across Europe correlates highly with trust (Yu et al., 2015)



# Why bother with language (part II)?

Language facilitates **cultural** exchange (Ginsburgh and Weber, 2020)

- language often proxies culture (Stulz and Williamson, 2003)
- language proxies **slow-changing** culture
  - adopting a new language invokes large costs
  - ones own language learned within the household
- type of language (pronouns, the gender associated with words) **might** be correlated with socio-economic behaviour—Sapir-Whorf hypothesis (Ginsburgh and Weber, 2020)

# Language adoption—stylized facts (PEW research, 2019)

## Many European countries have linguistic diversity

	Top language spoken at home	2nd most-spoken language	3rd most-spoken language	4th most-spoken language
<b>Poland</b>	Polish (100%)	– –	– –	– –
<b>Greece</b>	Greek (98)	Albanian (1)	Other (1)	– –
<b>Hungary</b>	Hungarian (97)	Romani (2)	– –	– –
<b>France</b>	French (97)	Other (2)	Arabic (1)	– –
<b>Italy</b>	Italian (96)	Other (4)	– –	– –
<b>Sweden</b>	Swedish (94)	Other (5)	– –	– –
<b>Czech Rep.</b>	Czech (94)	Slovak (2)	Romani (2)	Other (1)
<b>Netherlands</b>	Dutch (93)	Other (5)	Frisian (1)	Arabic (1)
<b>UK</b>	English (91)	Other (8)	– –	– –
<b>Lithuania</b>	Lithuanian (90)	Russian (6)	Polish (4)	– –
<b>Germany</b>	German (90)	Other (6)	Turkish (2)	Arabic (1)
<b>Slovakia</b>	Slovak (89)	Hungarian (9)	Romani (1)	Ruthenian (1)
<b>Spain</b>	Spanish (81)	Catalan (8)	Valencian (4)	Galician (3)
<b>Bulgaria</b>	Bulgarian (80)	Turkish (14)	Romani (6)	– –
<b>Russia</b>	Russian (92)*	Tatar (4)	Chechen (2)	Other (2)
<b>Ukraine</b>	Ukrainian (55)	Russian (44)	Other (1)	– –
<b>U.S.</b>	English (79)	Spanish (13)	Chinese (1)	Hindi (1)

\*Colored bars indicate languages spoken in three or more of these countries

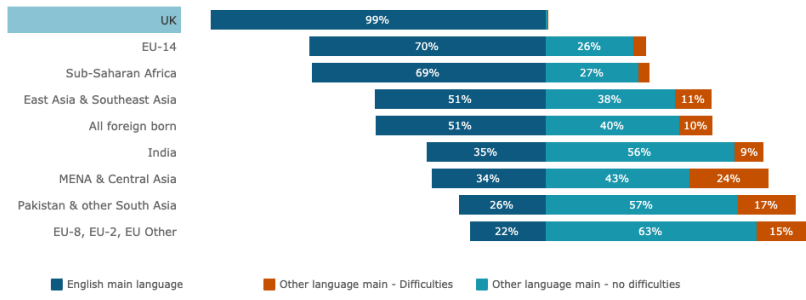
## Language adoption—stylized facts II

For 2018, the migration observatory noted for the UK

- From 3,200,000 foreign-born adults, 1,600,000 speak English as first language at home
- 320,000 of the foreign-born reported experiencing problems in work or education as a result of their limited English language skills
- Use of English increases over time: in 2018, about 68% of the foreign-born population residing in the UK for at least 15 years had English as their first language at home, up from 29% of those who had been in the country for 0–2 years

# Language adoption—stylized facts III

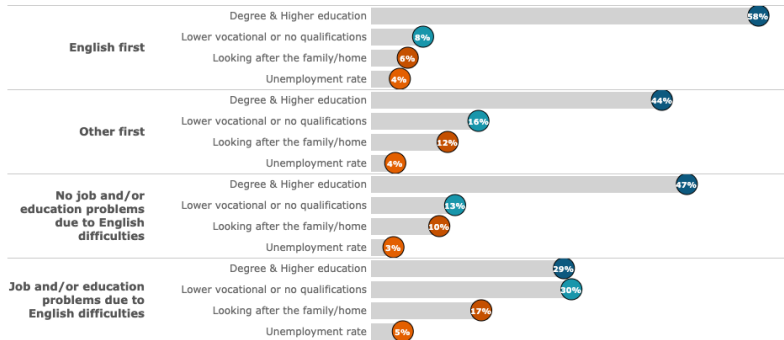
First language at home by country of birth, 2018  
Age 16 and older



(source: The Migration Observatory, at the University of Oxford, 2021)

# Returns to using a language

Educational and economic profile of the foreign-born population by first language at home, 2018  
Age 16 to 64



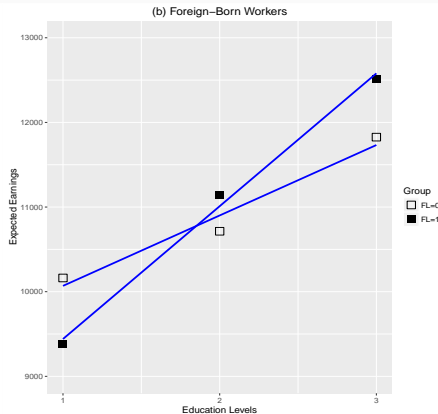
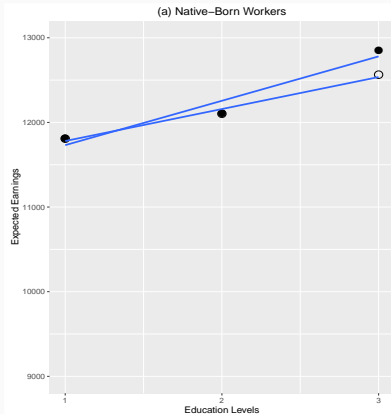
(source: The Migration Observatory, at the University of Oxford, 2021)



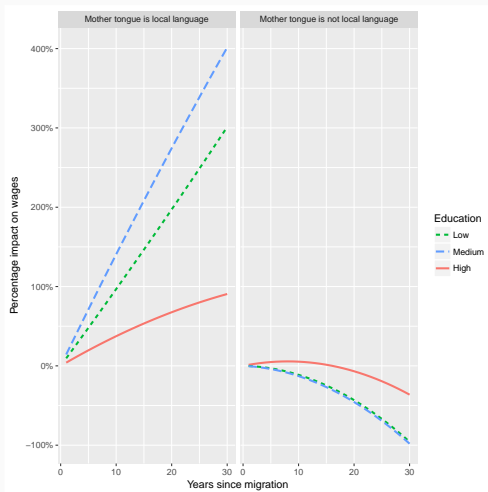
## Returns to using a language II

- For migrants: Being able to speak the native language is key to integration and returns on the labor market
  - +20% (Chiswick and Miller, 1995), +35% (Chiswick, 1999) and +33% (Bleakley and Chin, 2004, 2010) on earnings
- For natives: Being able to speak a foreign language is an important human capital asset
  - +3/+5% on earnings (Williams, 2011), (much) higher conditional on the share of people speaking that language (Ginsburgh and Prieto-Rodriguez, 2010)
  - English in a growing number of professions, but specific languages (Mandarin, French, Russian) for specific professions/firms

# Returns to foreign language and educational level



# Assimilation of foreign born workers with/without knowledge of LL speaking a foreign language



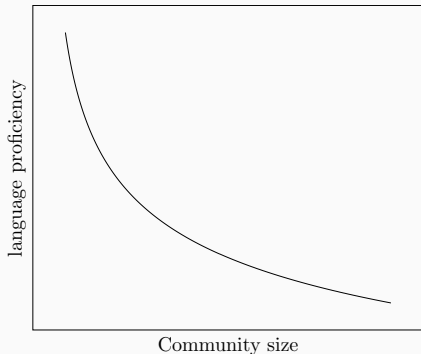
# A cost-benefit approach to language adoption

## Individual benefits

- higher wages
- less unemployment

## Individual costs

- time/effort
- opportunity costs

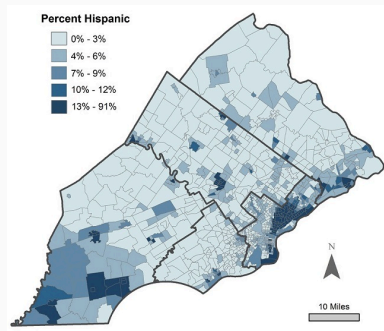
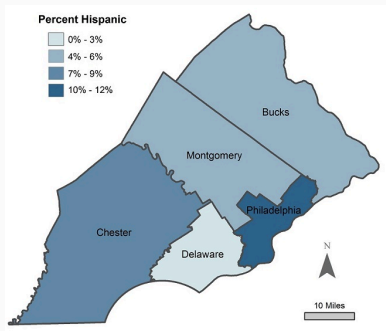


## Decreasing benefits in community size?

So, in strong communities with high bonding capital (strong ties) and less bridging capital (weak ties)

- language proficiency decrease (Lazear, 1999)
- depends on spatial scale, for neighborhoods yes, for cities no (Florax et al., 2005)
- communities not only the place where people live, but also where they work (Beckhusen et al., 2013)

# Measurement issues—MAUP!



# Policy issues

Language proficiency is beneficial for the individual—but sometimes incentives too low because of persistent network formation

## Possible policies

- decrease costs: schooling at the national level (note that schooling in a different language increases identity—well documented are Basque, Catalan, Arabic and Frisian languages)
- increase incentives: higher wages/job probability when able to speak the native language
- moving permits for social housing
- transitory?

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