

Lecture 24: Online dating

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Sociology 204: Social Networks
Princeton University

1/2 Online dating



Online dating create two kinds of question:

- ▶ How does online dating change dating and marriage?
- ▶ How can we use online dating to study existing questions in new ways?

This is a common pattern when new online systems are created.

How have sociologists studied dating and marriage in the past?

INTERMARRIAGE AND HOMOGAMY: Causes, Patterns, Trends

Matthijs Kalmijn

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“People have a tendency to marry within their social group or to marry of person who is close to them in status.”

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- ▶ Can we measure these patterns and see how it varies over time and across space?

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“People have a tendency to marry within their social group or to marry of person who is close to them in status.”

- ▶ Can we measure these patterns and see how it varies over time and across space?
- ▶ Why does these pattern exist? (Very hard with only outcome data)

<http://dx.doi.org/10.1146/annurev.soc.24.1.395>

Trends and Variation in Assortative Mating: Causes and Consequences

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Consequences of assortative mating for:

- ▶ inequality within generations

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- ▶ inequality between generations
- ▶ long-run population change
- ▶ relationship quality and dissolution

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Now move to more process data, online and offline

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GENDER DIFFERENCES IN MATE SELECTION: EVIDENCE FROM A SPEED DATING EXPERIMENT*

RAYMOND FISMAN
SHEENA S. IYENGAR
EMIR KAMENICA
ITAMAR SIMONSON

Observe all decisions, not just final matches

Speed Dating Experiment | K x

https://www.kaggle.com/annavictoria/speed-dating-experiment

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Speed Dating Experiment

What attributes influence the selection of a romantic partner?

126

by Anna Montoya · last updated a year ago

Overview Kernels Discussion Activity Download (384 KB) New Notebook New Script

Kernels	Discussion	Top Contributors
<p>The Ugly Truth of People De... run 2 months ago</p> <p>67 votes</p>	<p>The Ugly Truth of People De... a month ago</p> <p>25 replies</p>	<p>JPHwang 1st</p>
<p>What matters most run 4 months ago</p> <p>15 votes</p>	<p>newbie question 2 months ago</p> <p>3 replies</p>	<p>Ricky 2nd</p>
<p>Do we know what we want? run 9 months ago</p> <p>10 votes</p>	<p>My analysis on this dataset i... 3 months ago</p> <p>0 replies</p>	<p>Samshipengs 3rd</p>

https://www.kaggle.com/annavictoria/speed-dating-experiment

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1940 heterosexual couples, US, way of meeting (some categories overlapped):

- ▶ family: 24 percent
- ▶ friends: 21 percent
- ▶ school: 21 percent
- ▶ neighbors: 13 percent
- ▶ church: 13 percent
- ▶ bar or restaurant: 12 percent
- ▶ co-workers: 10 percent

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- ▶ more than one-third of couples who married in the United States from 2005 to 2012 met online

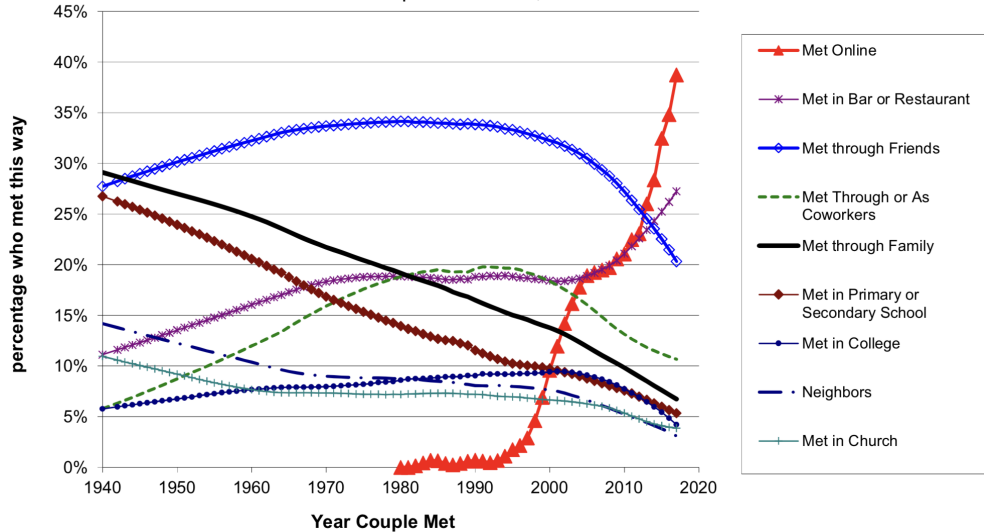
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By 2009,

- ▶ half of all straight couples still met through friends or at a bar or restaurant, but 22 percent met online, and all other sources had shrunk.
- ▶ more than one-third of couples who married in the United States from 2005 to 2012 met online
- ▶ almost 70 percent of gay and lesbian couples met online

How heterosexual couples have met, data from 2009 and 2017



Source: Rosenfeld et al (2019) <https://doi.org/10.1073/pnas.1908630116>

Online dating create two kinds of question:

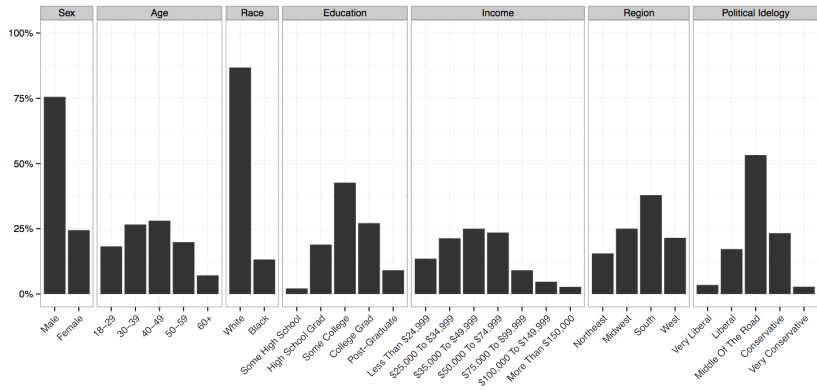
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- ▶ How can we use online dating to study existing questions in new ways?

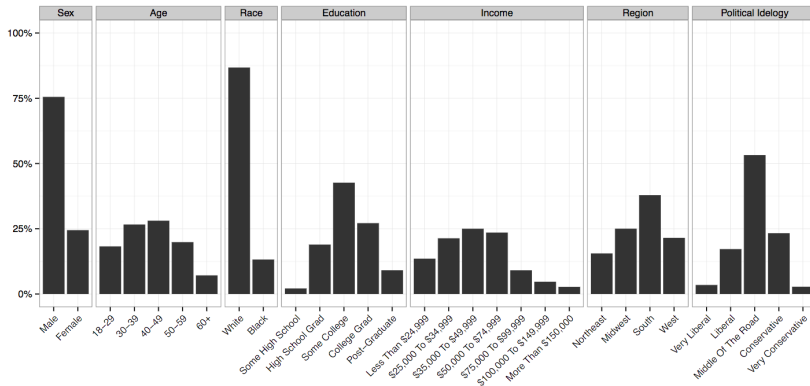
Political Ideology and Racial Preferences in Online Dating

Ashton Anderson,^a Sharad Goel,^b Gregory Huber,^c Neil Malhotra,^a Duncan J. Watts^b

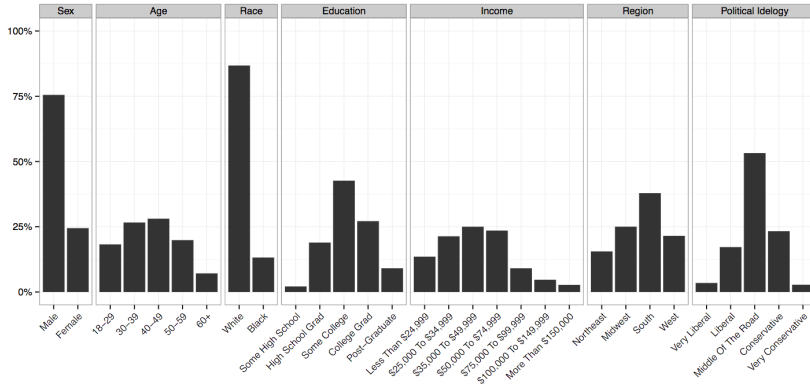
a) Stanford University; b) Microsoft Research; c) Yale University

- Focused on same race romantic relationships (racial homogamy). What are the roles of opportunity and choice?

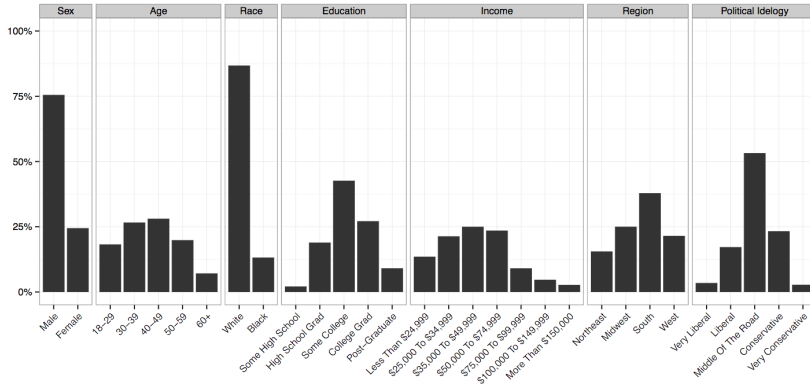




► Analysis sample is limited to white and black heterosexuals.



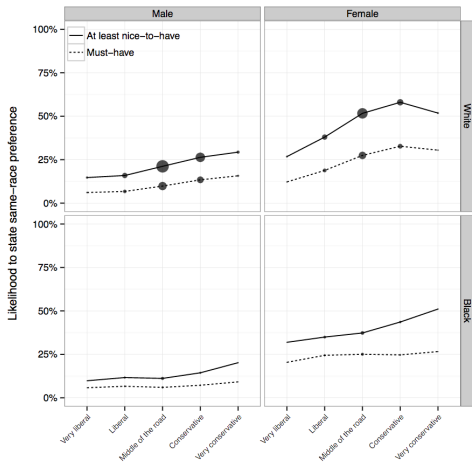
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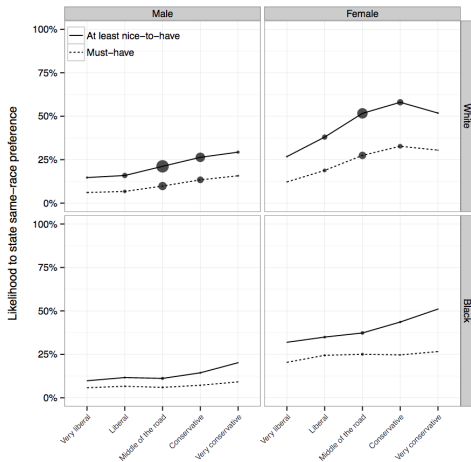


- ▶ Analysis sample is limited to white and black heterosexuals. Other research focuses on other groups.
- ▶ Sample is diverse in other ways.

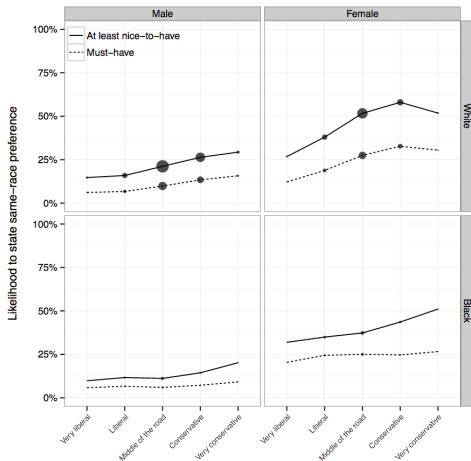
- ▶ Stated preferences: what you say you want
- ▶ Revealed preferences: what you do

stated preferences

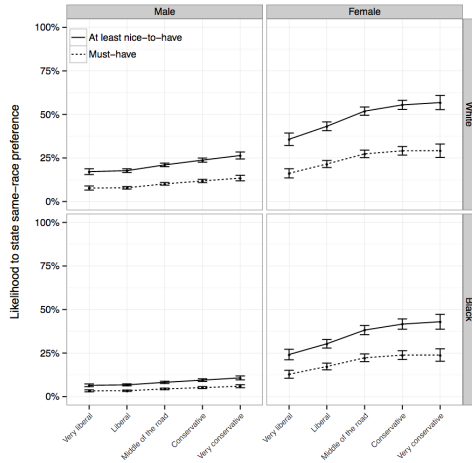


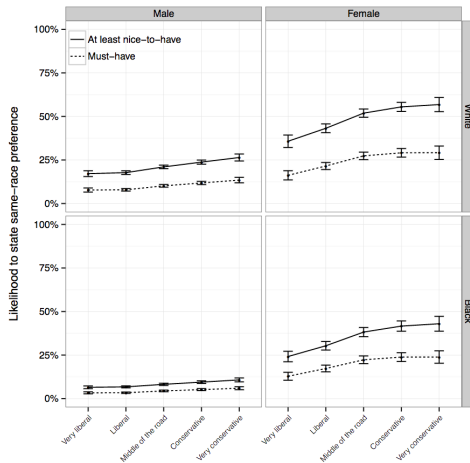


► Conservative show more stated preference for same-race partners



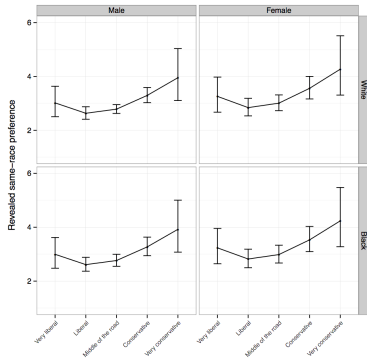
- ▶ Conservative show more stated preference for same-race partners
- ▶ Maybe this is caused by something correlated with conservativeness? So, researchers do statistical adjustments.



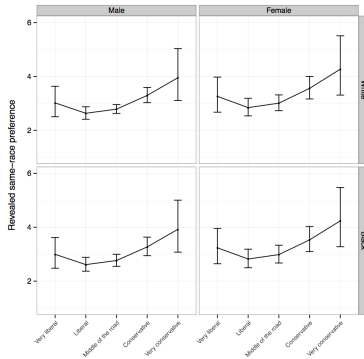


- Conservative show more stated preference for same-race partners, even after some statistical adjustments.

Revealed preferences

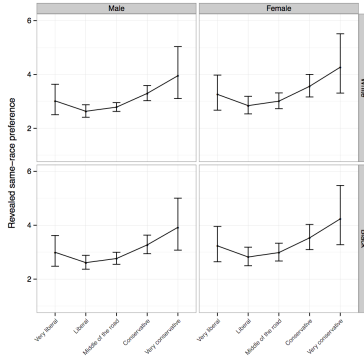


$$\text{risk ratio} = \frac{Pr[q_i \text{ views profile of } c_j | q_i \text{ is the same race as } c_j]}{Pr[q_i \text{ views profile of } c_j | q_i \text{ is different race as } c_j]}$$



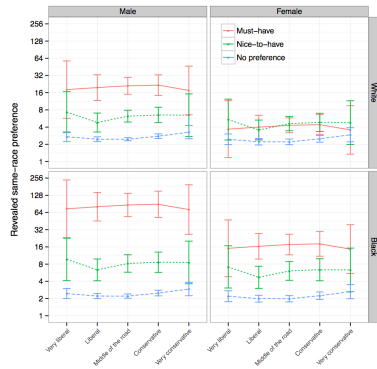
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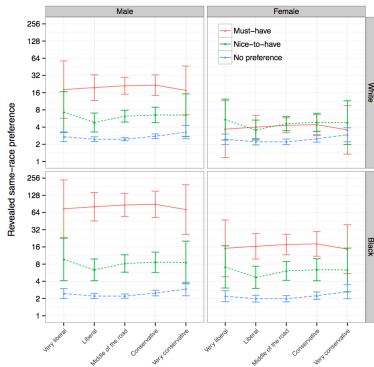
- More conservative individuals revealed preference to select same race partner



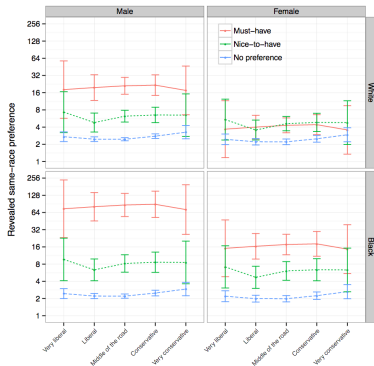
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- ▶ More conservative individuals revealed preference to select same race partner
- ▶ Men and women are equally likely to have revealed preference to select same race partner

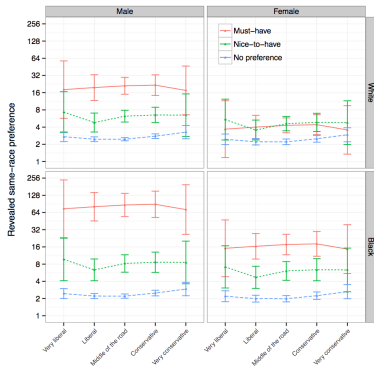




- All groups exhibit revealed same-race preferences (note all estimates are above 1)



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- ▶ People who have higher stated preferences have higher revealed preferences



- ▶ All groups exhibit revealed same-race preferences (note all estimates are above 1)
- ▶ People who have higher stated preferences have higher revealed preferences
- ▶ Not big differences by ideology

Studying Online Behavior: Comment on Anderson et al. 2014

Kevin Lewis

University of California, San Diego

- ▶ Who is in their sample? Who isn't in their sample?

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- ▶ How much of these revealed preferences are the users and how much are the site's algorithms? (This should remind you of algorithmic filter bubbles).

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- ▶ What kind of dating site?
- ▶ How much of these revealed preferences are the users and how much are the site's algorithms? (This should remind you of algorithmic filter bubbles).
- ▶ Should we care about profile clicks or some other behavior, such as online contact or offline dating?

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Rejoinder to Lewis

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Stepping back:

- ▶ racial homogeneity is partially the result of opportunity and partially the result of choices

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Stepping back:

- ▶ racial homogamy is partially the results of opportunity and partially the result of choices
- ▶ online dating allows us to study those choices in more detail (but this can be tricky because of things like algorithmic confounding)
- ▶ in this study, participants had both stated and revealed preferences for same-race partners

Here are some more things to read about online dating:

- ▶ Lewis (2013) "The limits of racial prejudice." *PNAS*.
<http://dx.doi.org/10.1073/pnas.1308501110>
- ▶ Bruch et al (2016) "Extracting multistage screening rules from online dating activity data." *PNAS*. <http://dx.doi.org/10.1073/pnas.1522494113>
- ▶ Huber and Malhotra (2017) "Political Homophily in Social Relationships: Evidence from Online Dating Behavior." *The Journal of Politics*,
<http://dx.doi.org/10.1086/687533>.
- ▶ Rafalow, Feliciano, and Robnett. 2017. "Racialized Femininity and Masculinity in the Preferences of Online Same-Sex Daters." *Social Currents*,
<https://doi.org/10.1177/2329496516686621>
- ▶ Rudder (2015) Dataclysm. <http://dataclysm.org/>
- ▶ OKCupid Blog. <https://theblog.okcupid.com/>
- ▶ Ansari and Klinenberg (2015) Modern Romance.
https://en.wikipedia.org/wiki/Modern_Romance:_An_Investigation
- ▶ Feliciano and Kizer (2020) "Reinforcing the Racial Structure: Observed Race and Multiracial Internet Daters' Racial Preferences." *Social Forces*,
<https://doi.org/10.1093/sf/soaa065>