Homophily

CRJ 523

Network Criminology

Learning Goals

- Discuss concept of *homophily* and various conceptualizations.
- Discuss reasons for homophily in networks.

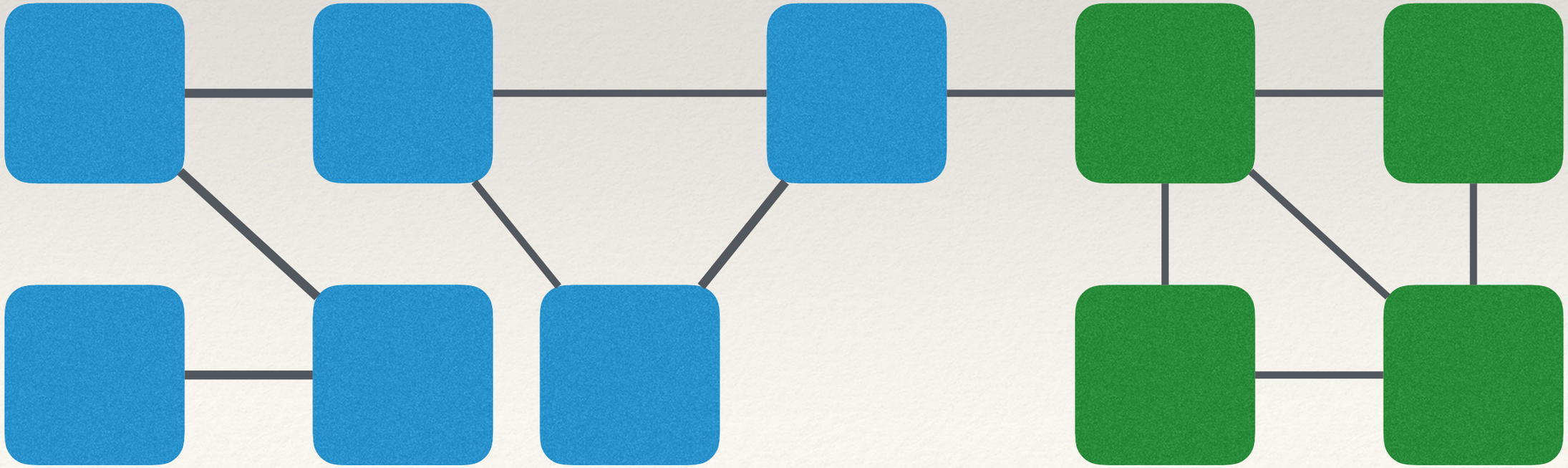
Exercise

- Who are the people whom you discuss important matters with?
- How do you know these people?

- <u>To Do</u>:
- Write the names of people who come to mind.
- Draw circles around them as it pertains to *how* you know them.

Homophily

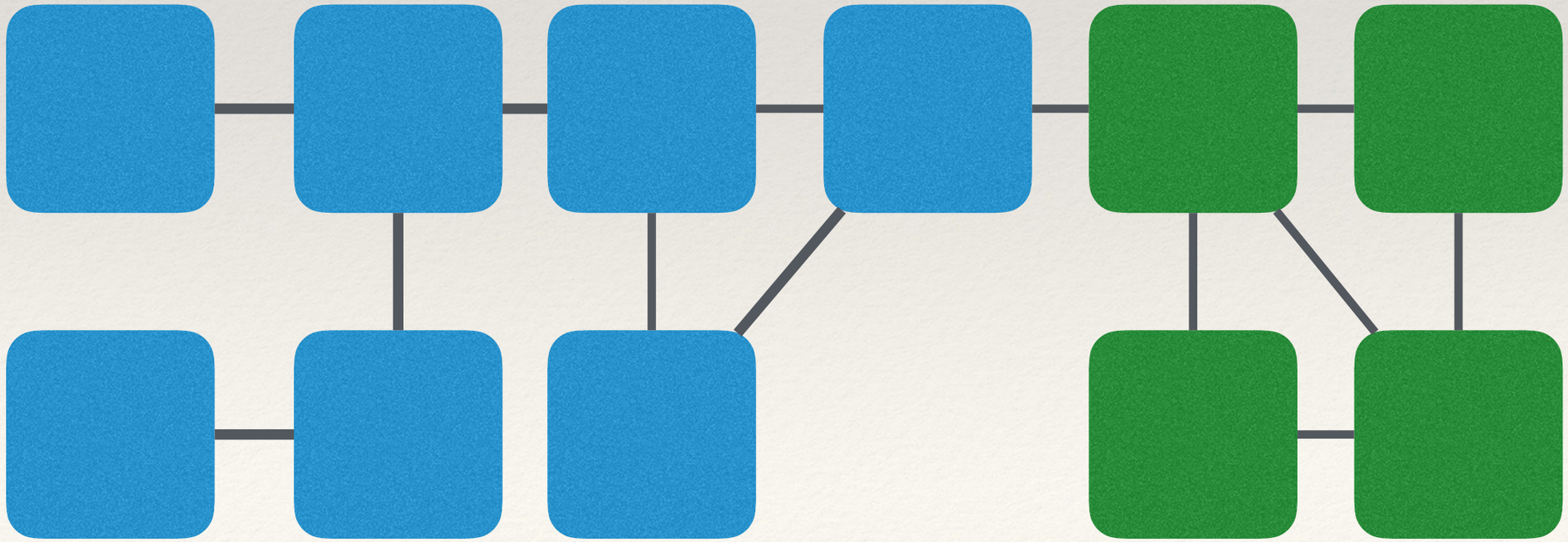
- <u>Concept</u>
  - "Contact between similar people occurs at a higher rate than among dissimilar others" (McPherson, et al. 2001: 416)



Homophily

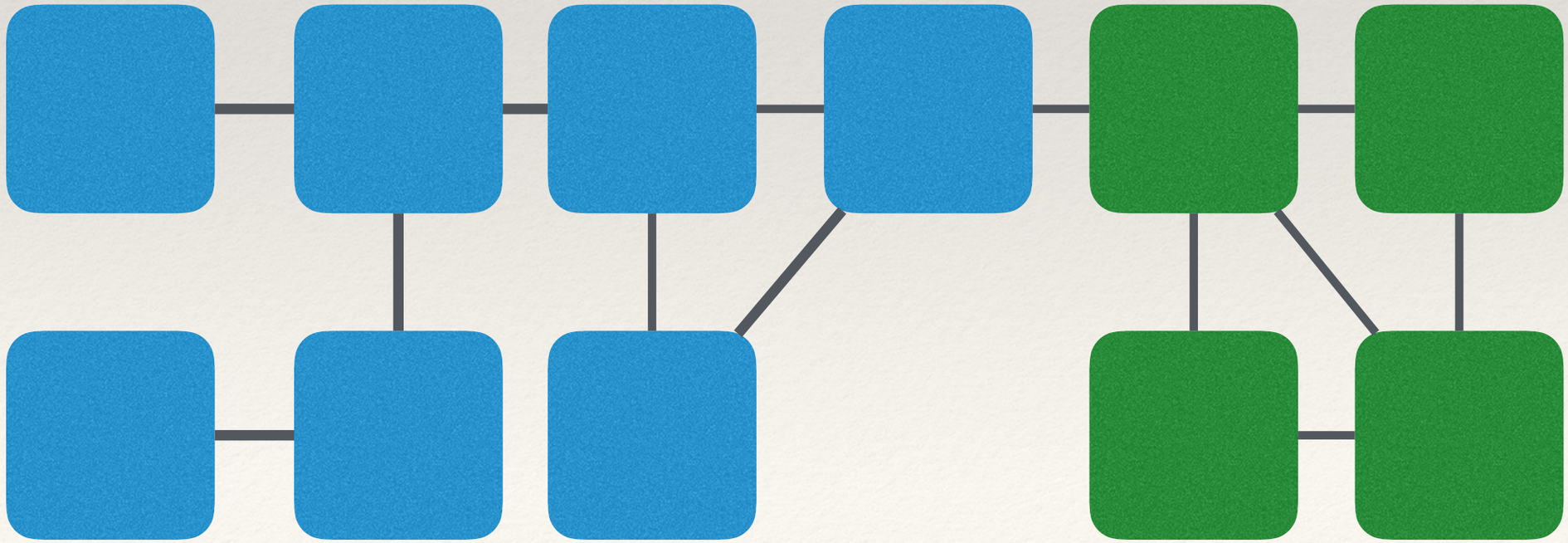
- <u>Concept</u>
  - "Contact between similar people occurs at a higher rate than among dissimilar others" (McPherson, et al. 2001: 416)
  - **Homophily** is a property of social networks, an *empirical observation*, not a causal mechanism.

Why this occurs is different!



Homophily

What are some reasons we might observe this pattern?



Homophily

- <u>Questions to think about</u>:
  - *What causes homophily?* (network as a DV, theory of networks)
  - *What are the consequences of homophily?* (network as a IV, network theory)

Homophily

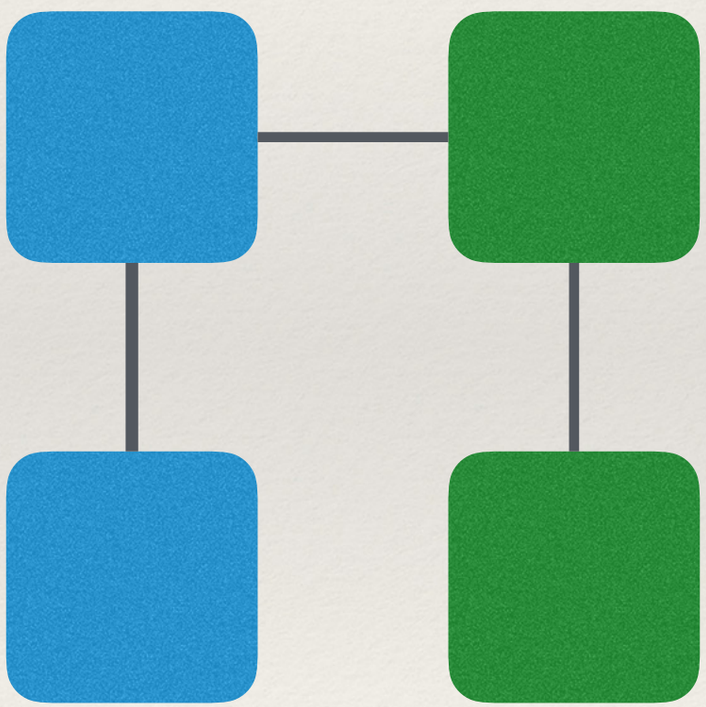
- *How is homophily manifested?*

- Conceptualizations (see McPherson et al. 2001)
  - **Status** vs. **Value**
  - **Baseline** vs. **Inbreeding**

Homophily

Baseline Homophily

There are 0.5 blue nodes.



The proportion of ties between blue nodes is 0.5.

Homophily

Baseline Homophily

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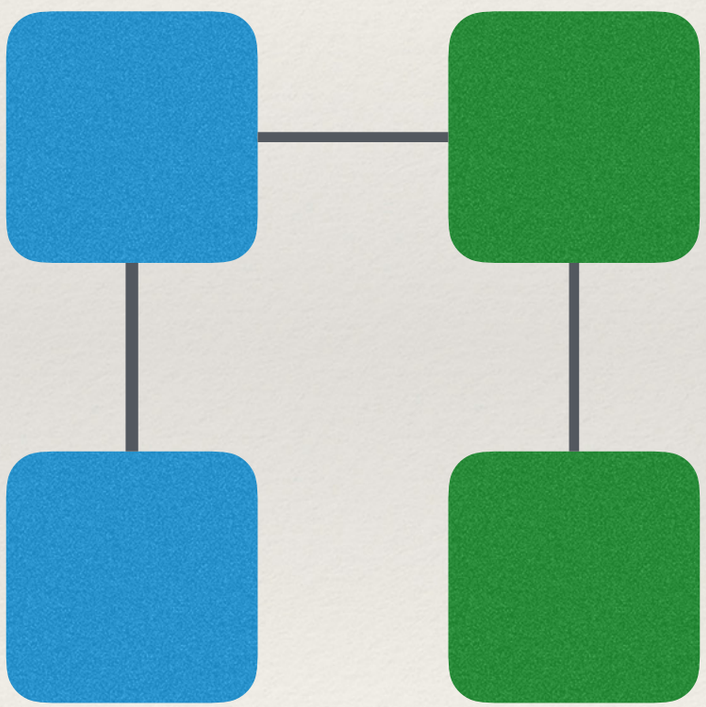

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Homophily

Inbreeding
Homophily

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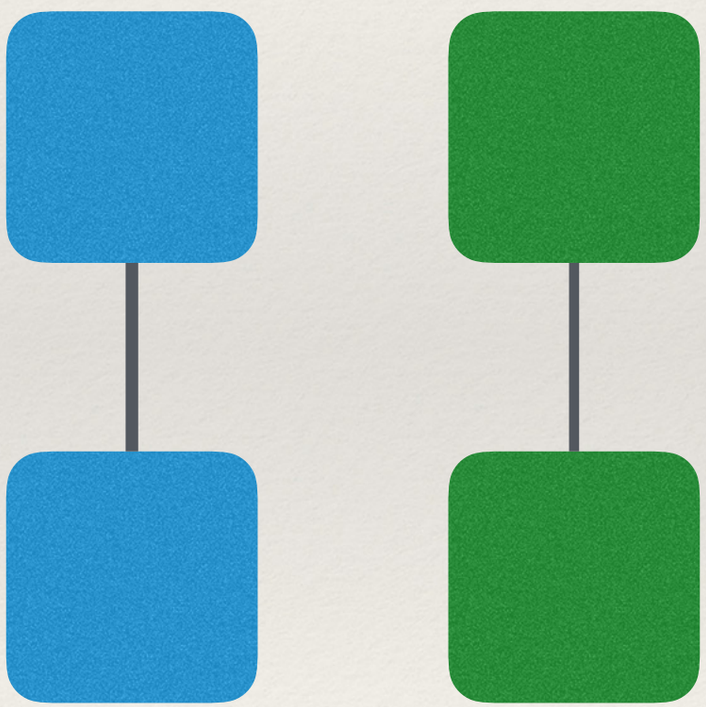
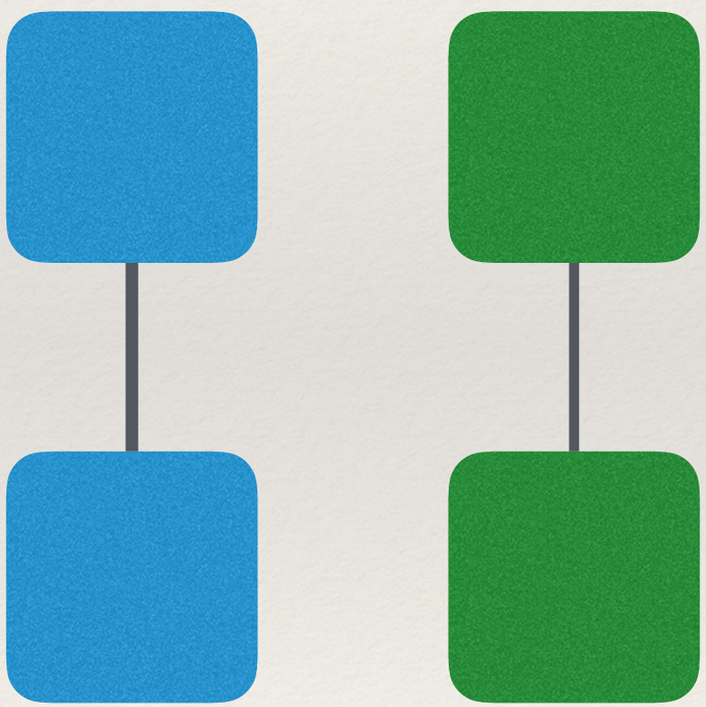


The proportion of ties between blue nodes is 1.0.

Homophily

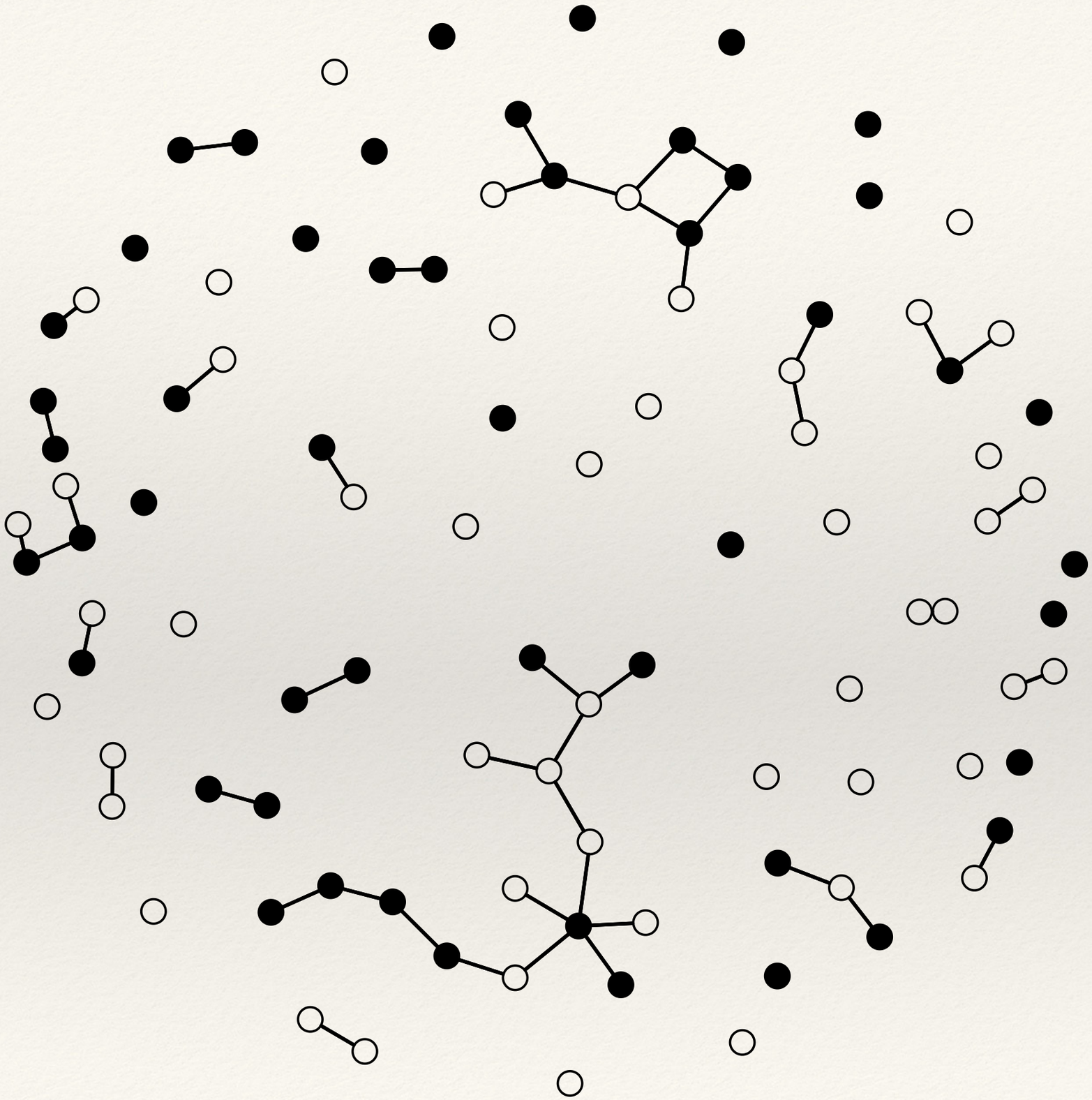
Inbreeding
Homophily

There are 0.5 green nodes.

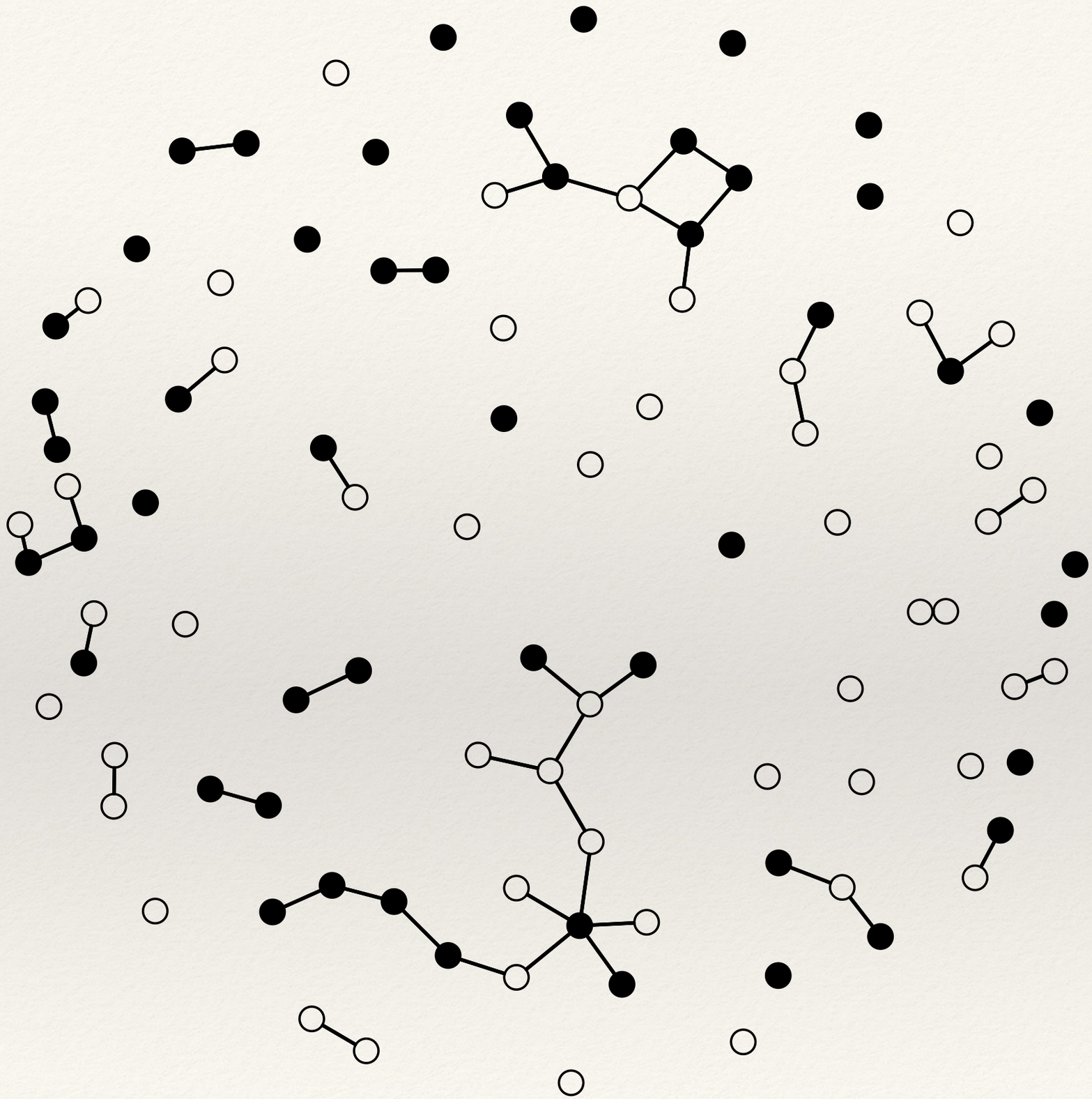


The proportion of ties between green nodes is 1.0.

Is there homophily? What type?



Baseline Homophily



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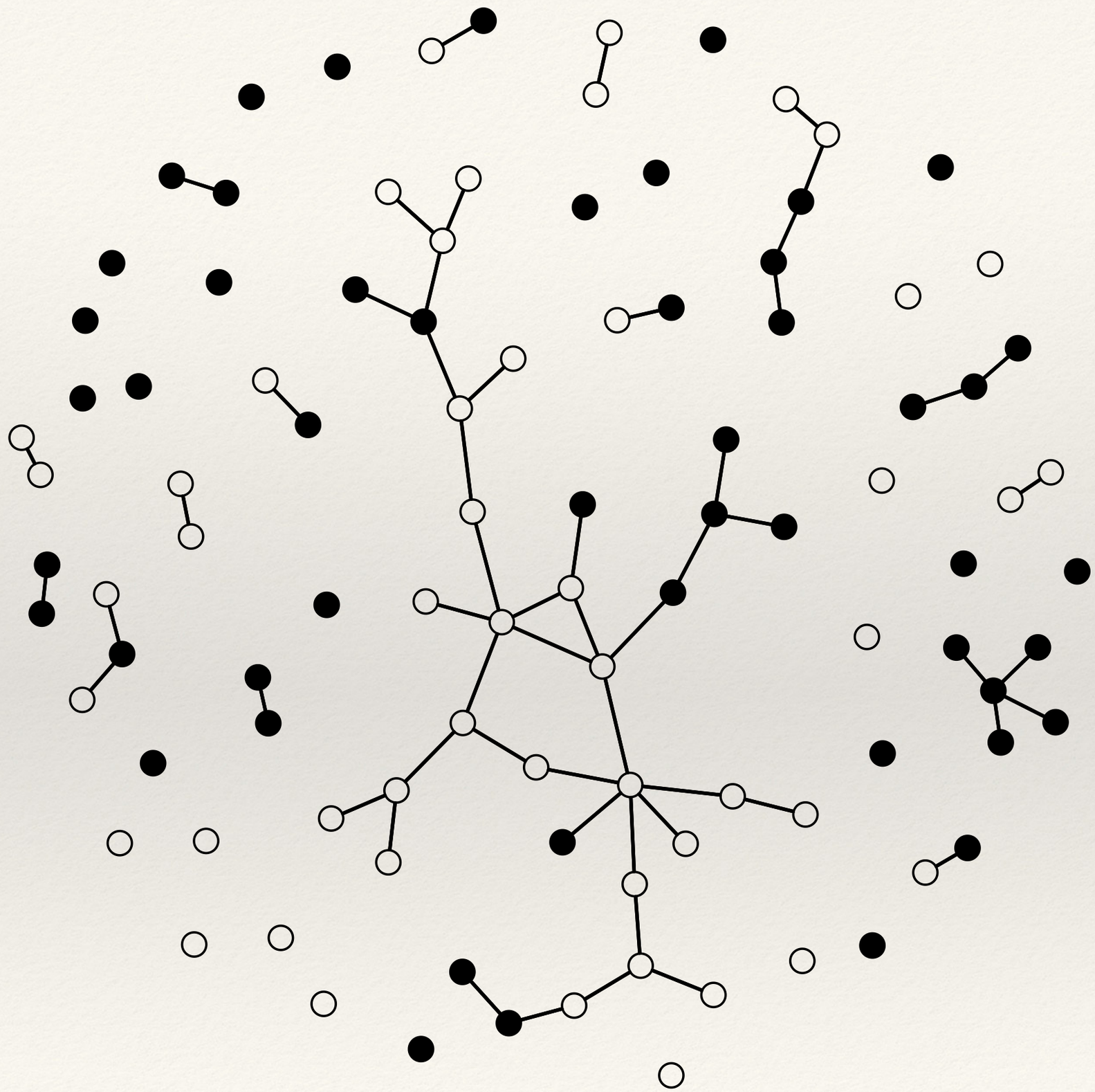
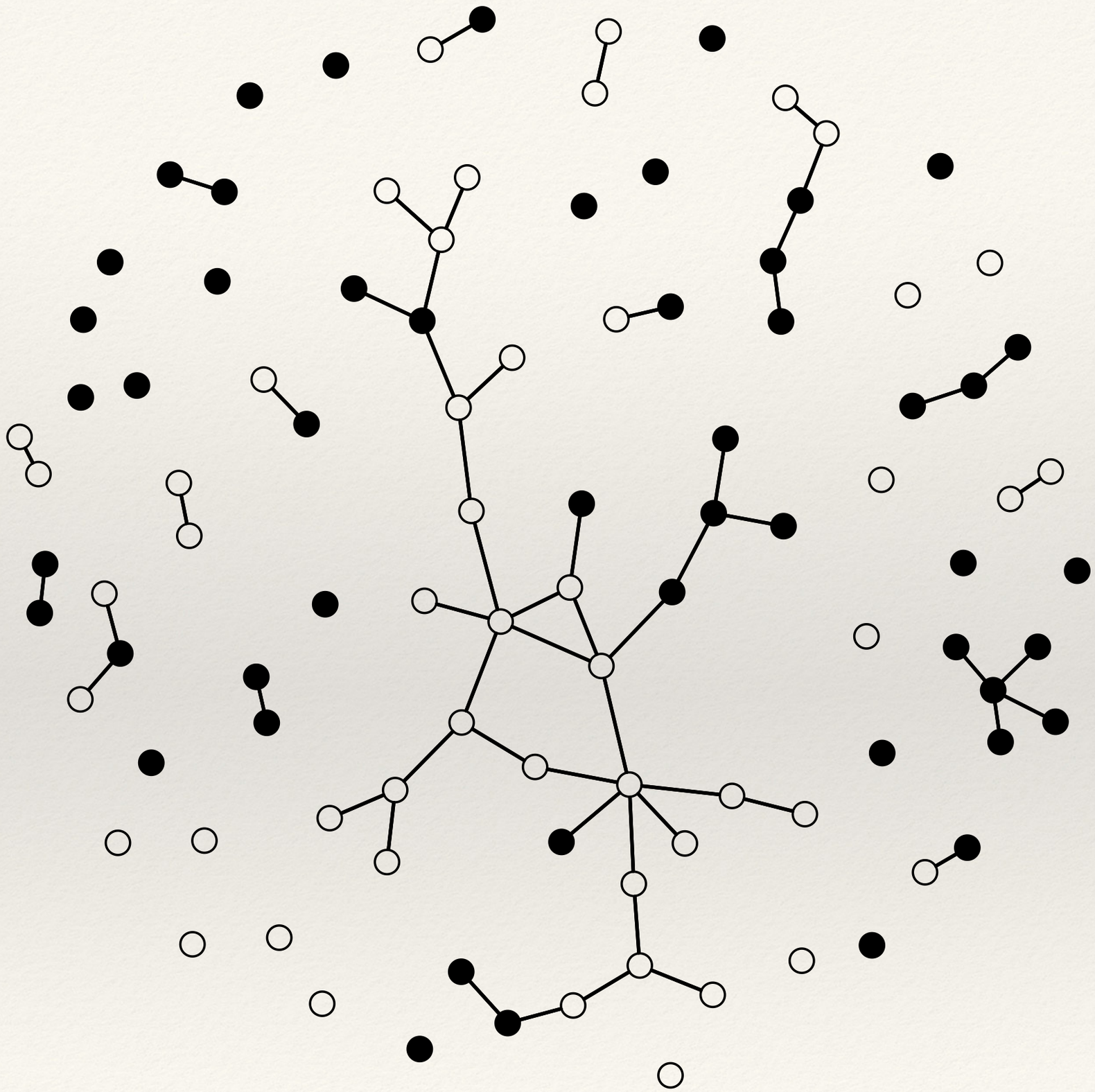
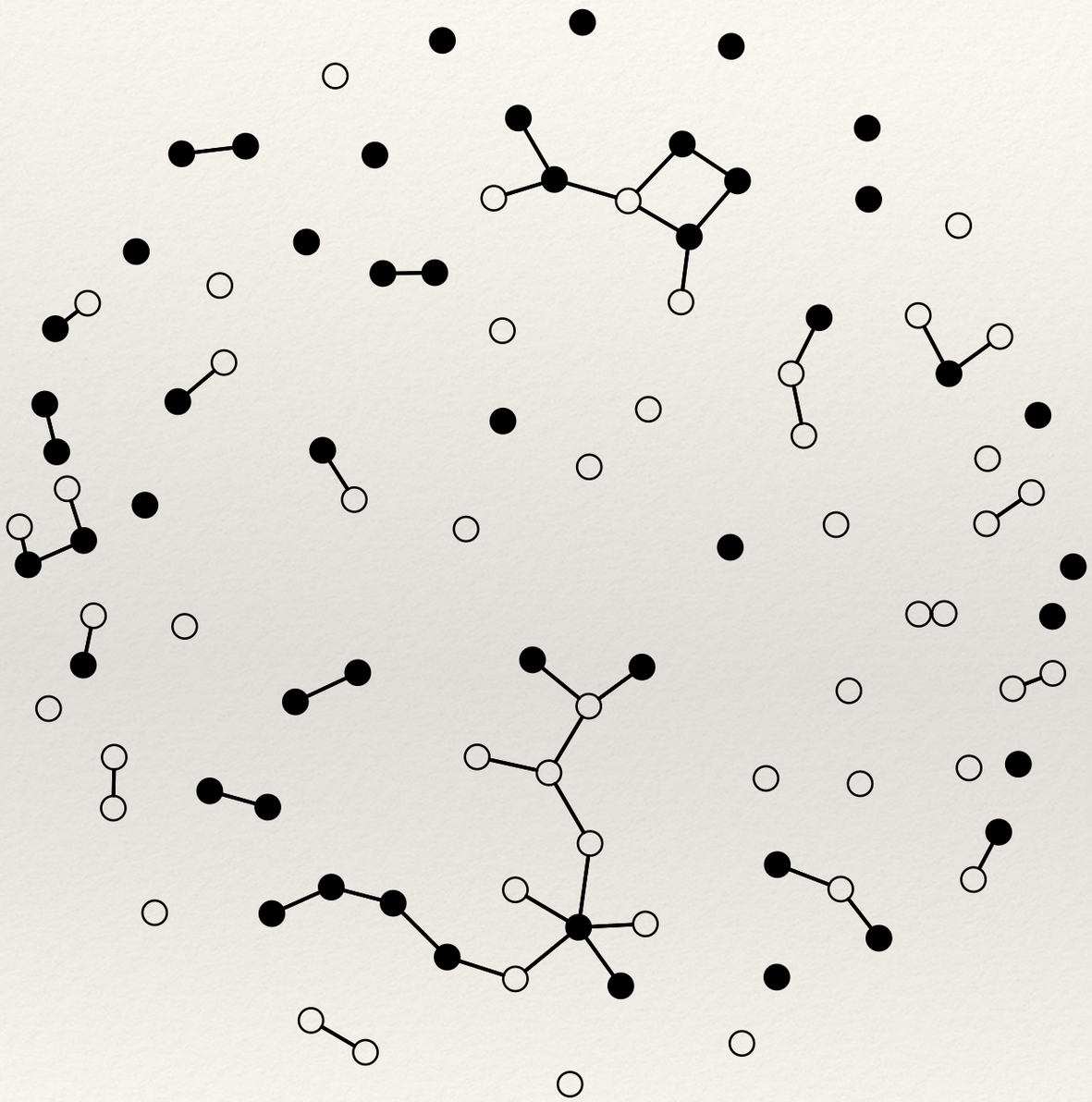


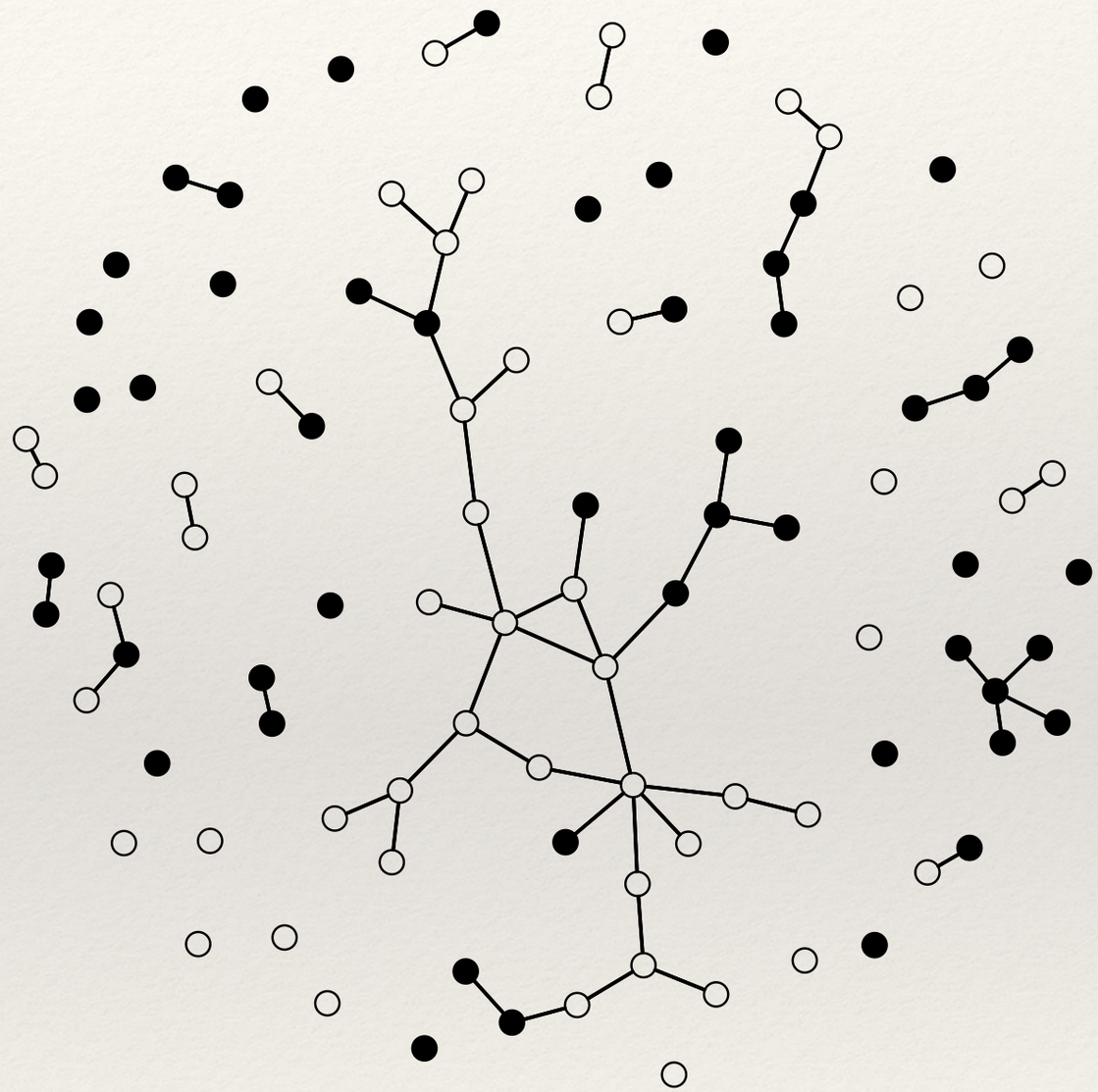
Inbreeding Homophily

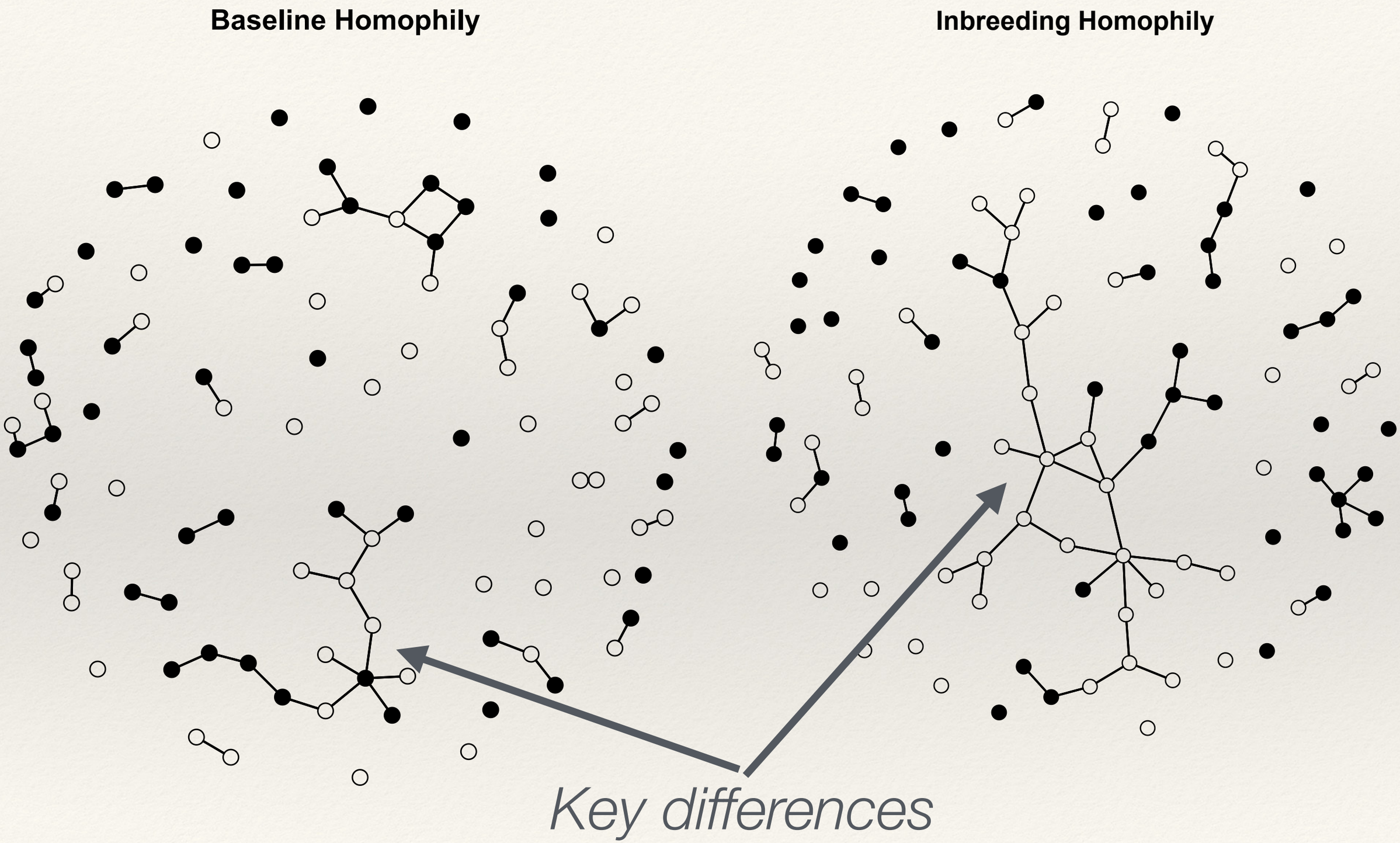


Baseline Homophily



Inbreeding Homophily




Baseline Homophily
Inbreeding Homophily
Key differences

Focus Theory

- Aside from description, we want to know why we observe a particular pattern in a network.

- **How is homophily created in social networks?**

Focus Theory

- A **focus** (foci is plural) is an "entity around which joint activities are organized" (Feld, 1981: 1016).
- A **social context** is a "number of difference foci and individuals, where each individual is related to some foci and not to others" (Feld, 1981: 1016).

Focus Theory

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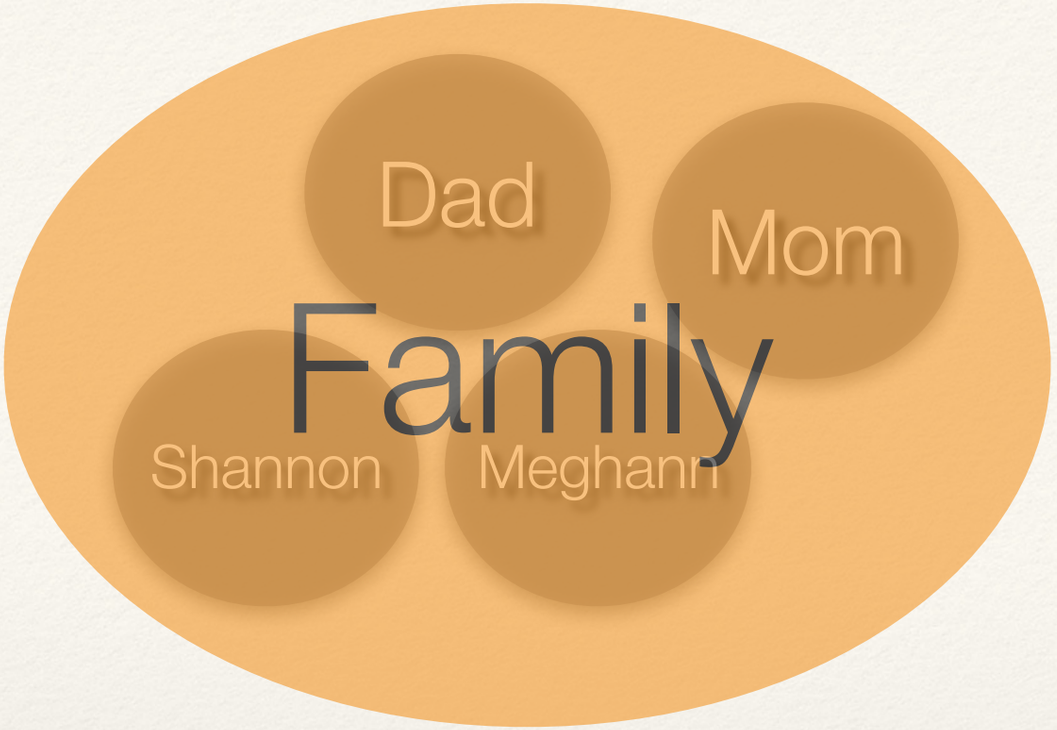
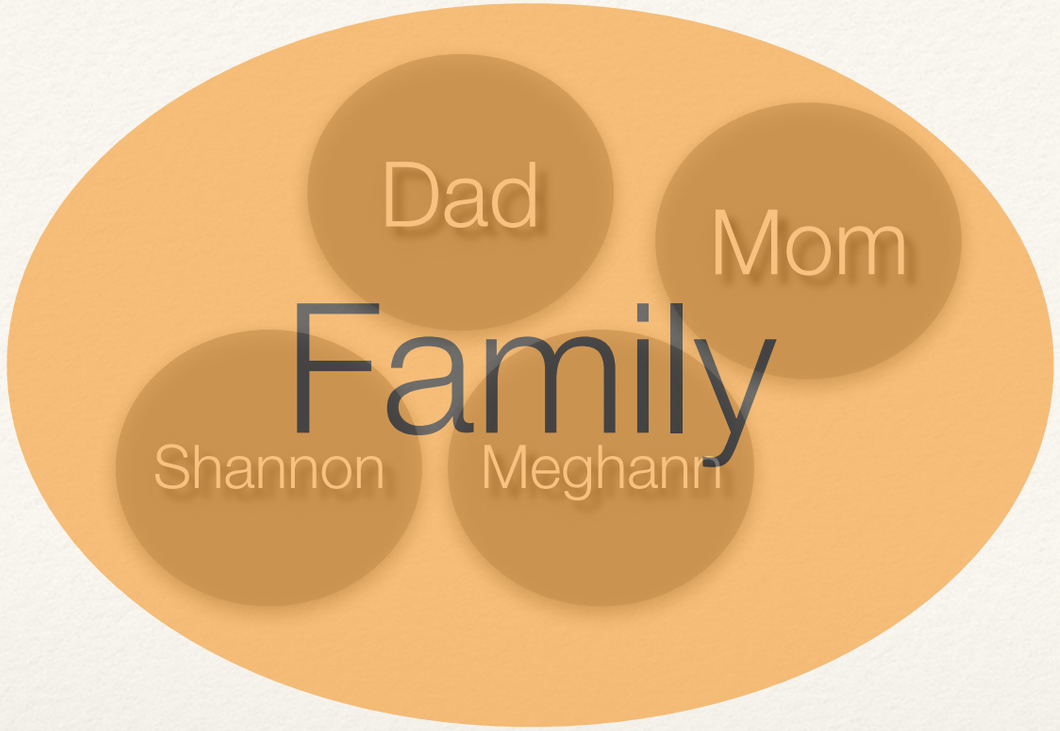
Jacob

Dad
Mom
Shannon
Meghann
Jacob


Dad
Mom
Family
Shannon
Meghann

Jacob


Dad
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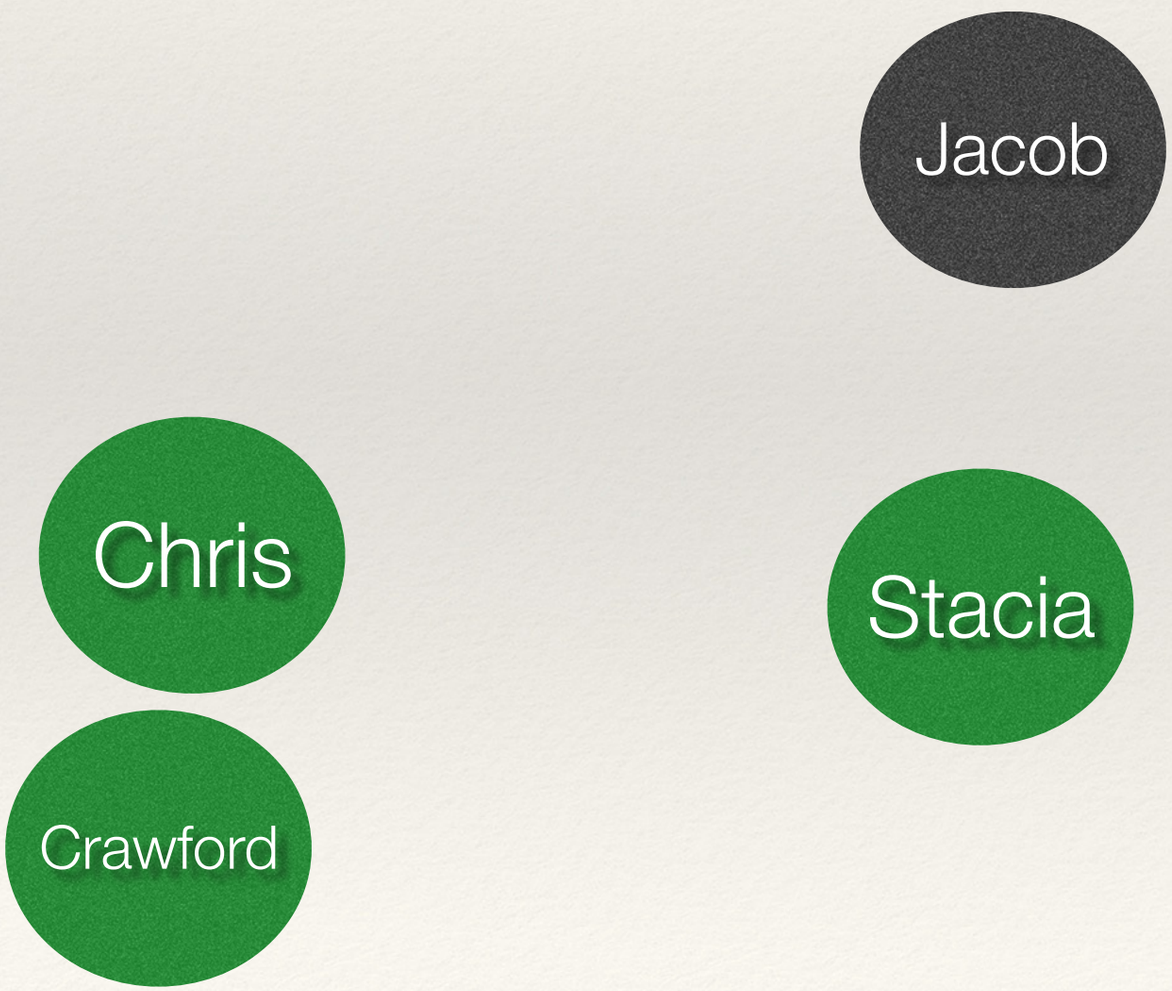
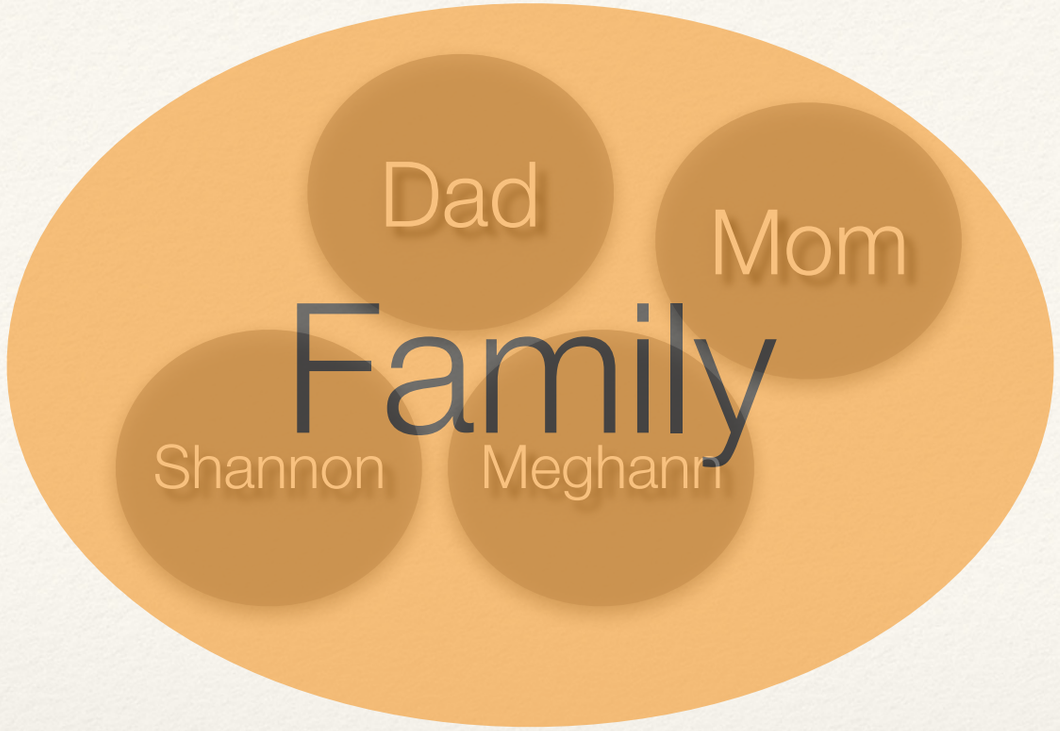

Jacob
Chris
Stacia
Crawford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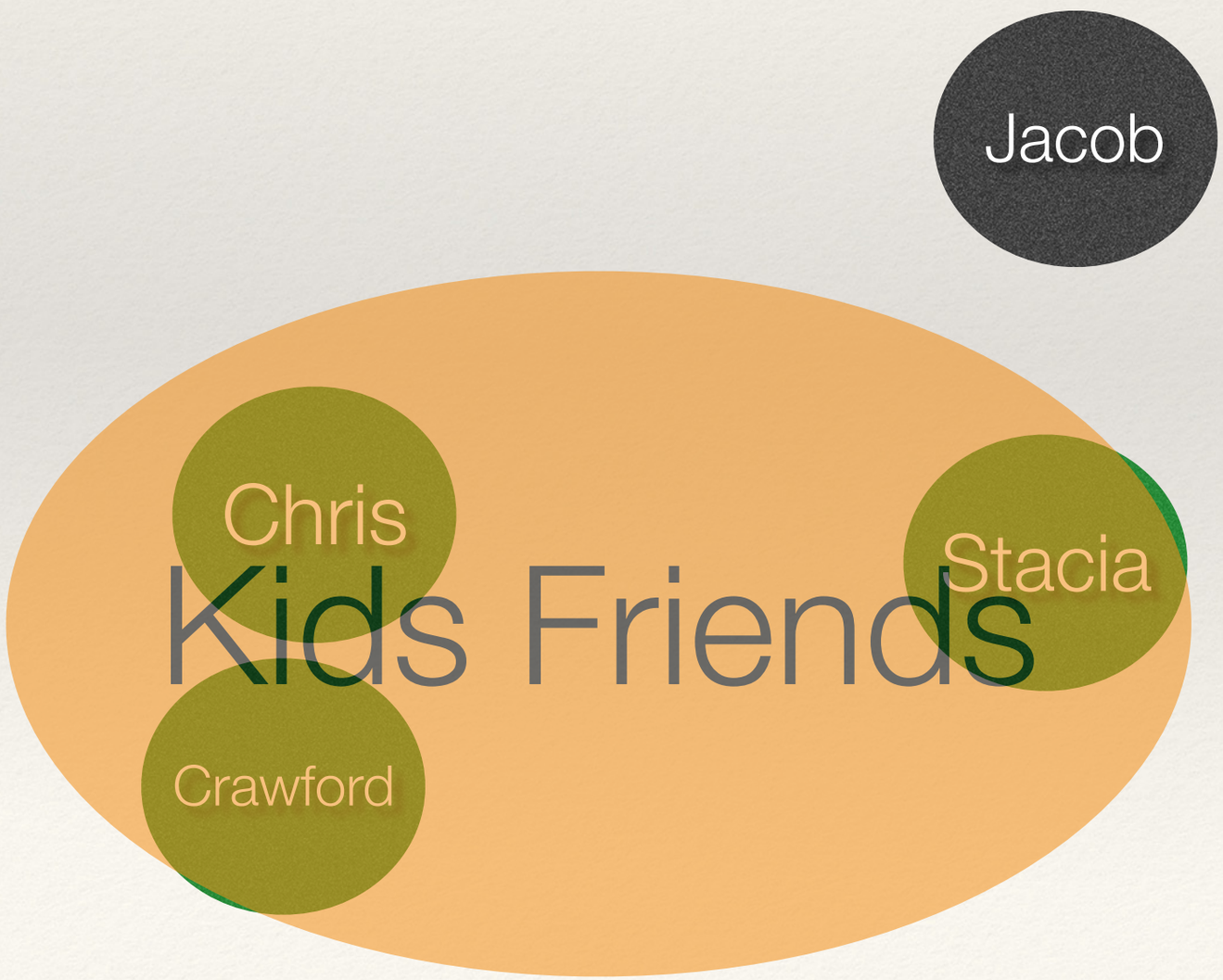
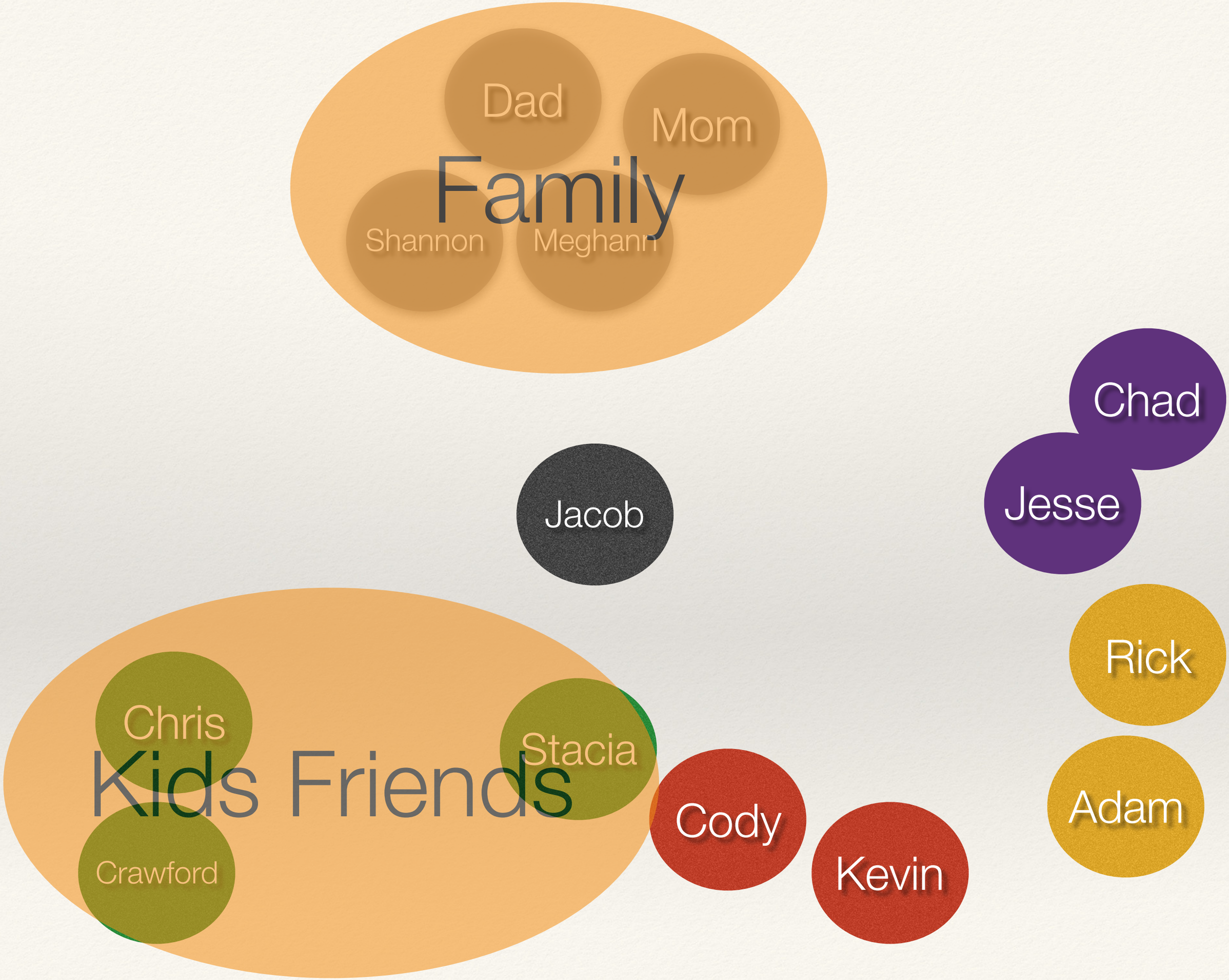

Jacob
Chris
Stacia
Kids Friends
Crawford


Dad
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Cody
Adam
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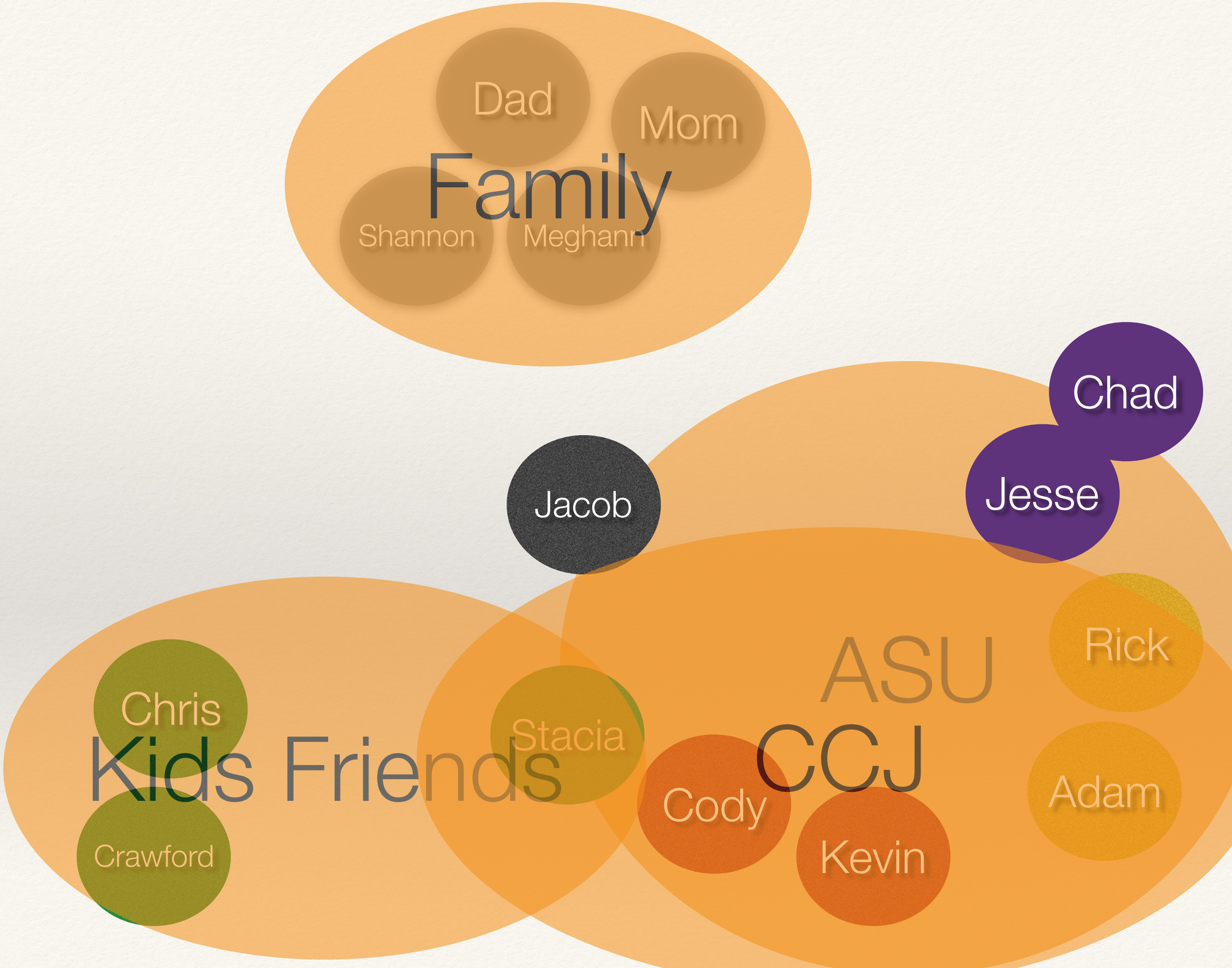
Kevin


Dad
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CCJ
Kids Friends
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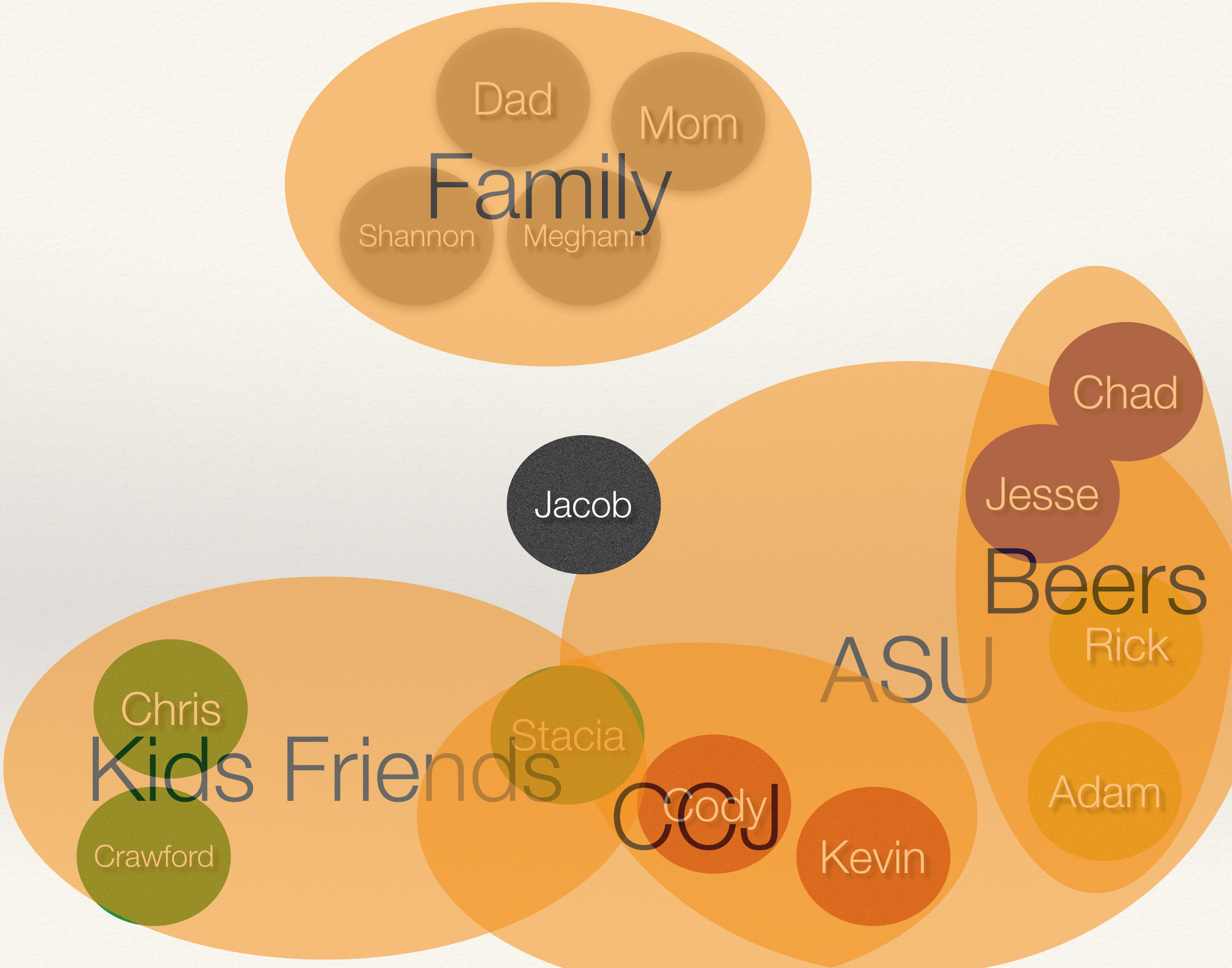
Adam
Crawford
Kevin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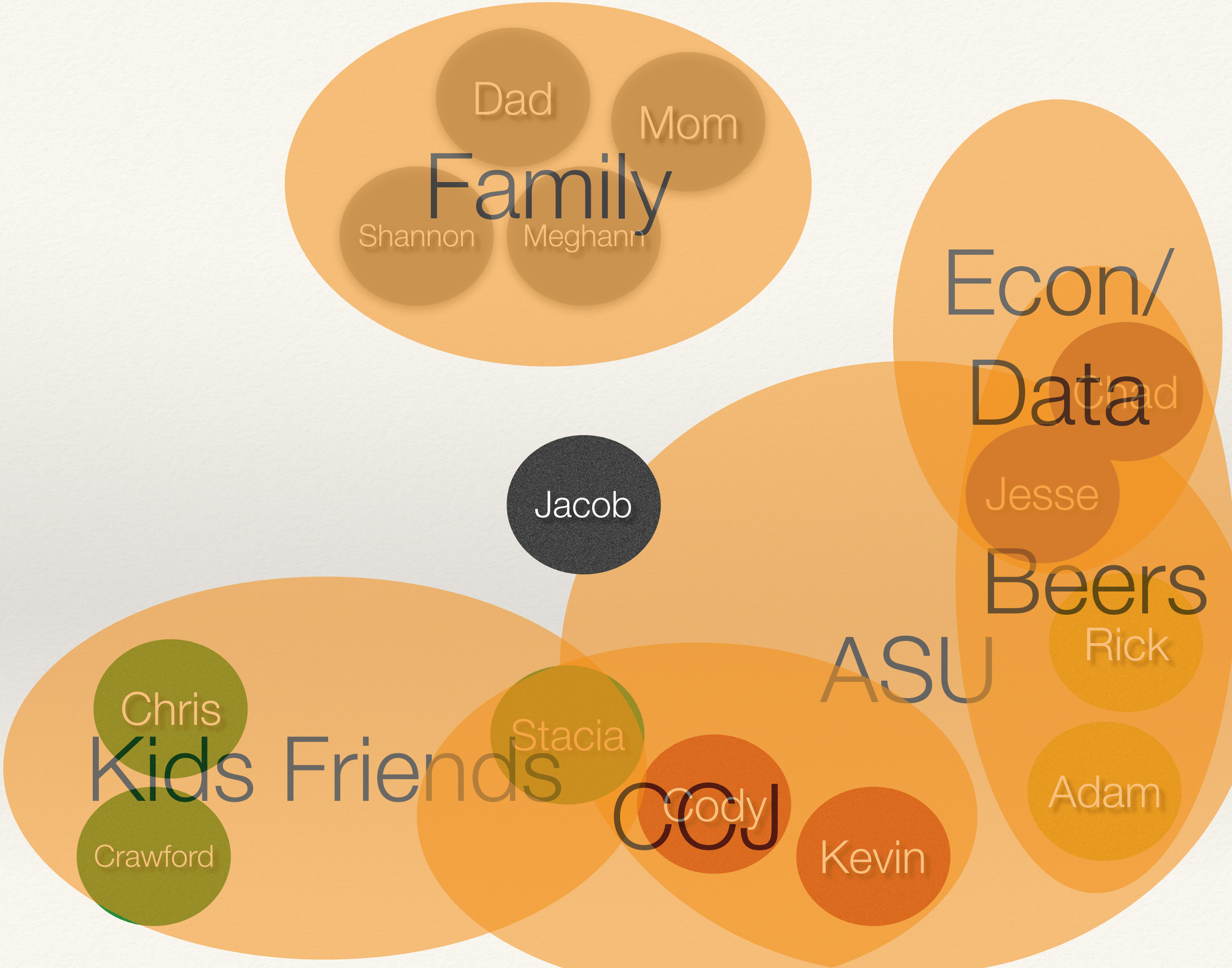
Chris
Stacia
Kids
Friends
Cody
COJ
Adam
Kevin
Crawford


Dad
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Family
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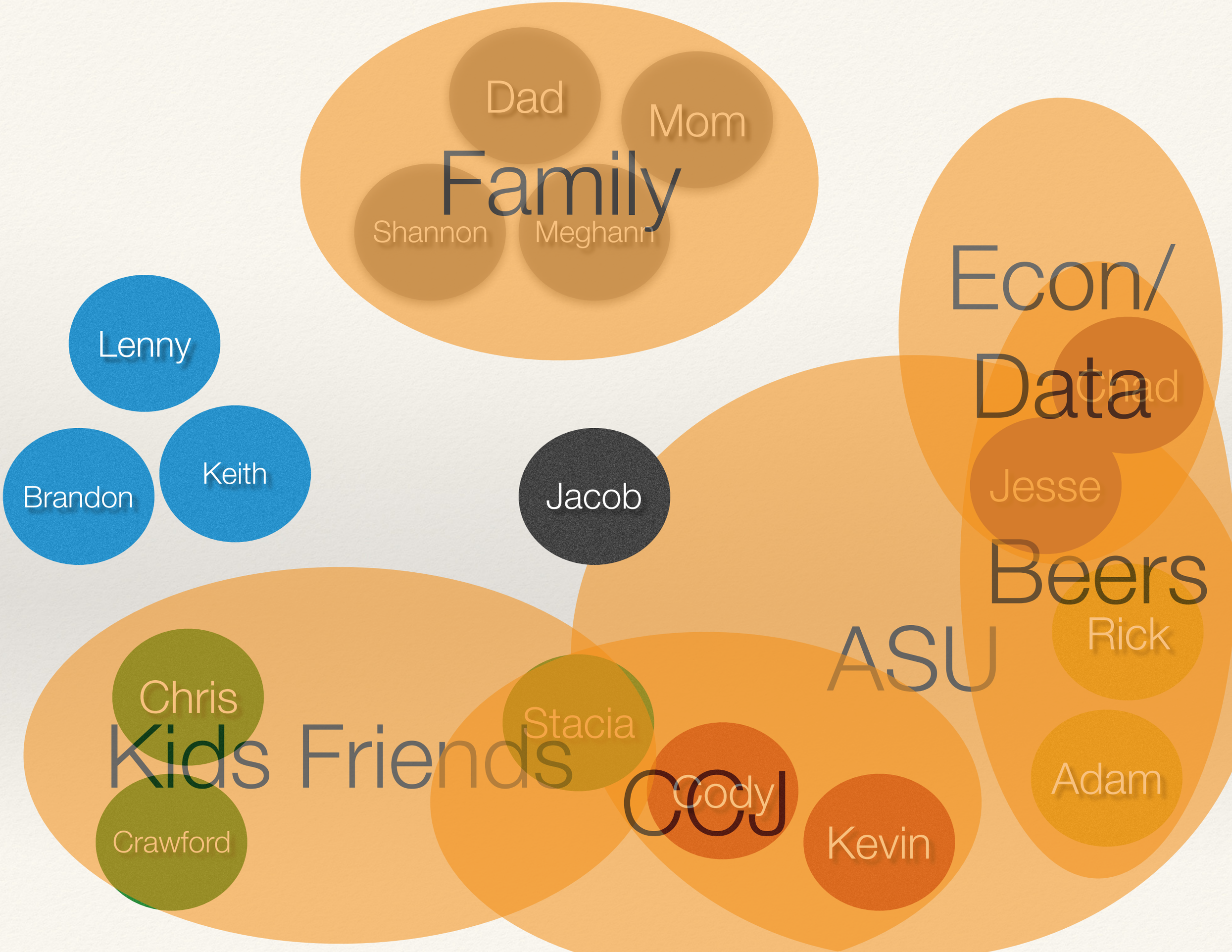
Friends
Stacia
Cody
COJ
Kevin
Adam
Crawford


Dad
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Family
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Econ/
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Lenny
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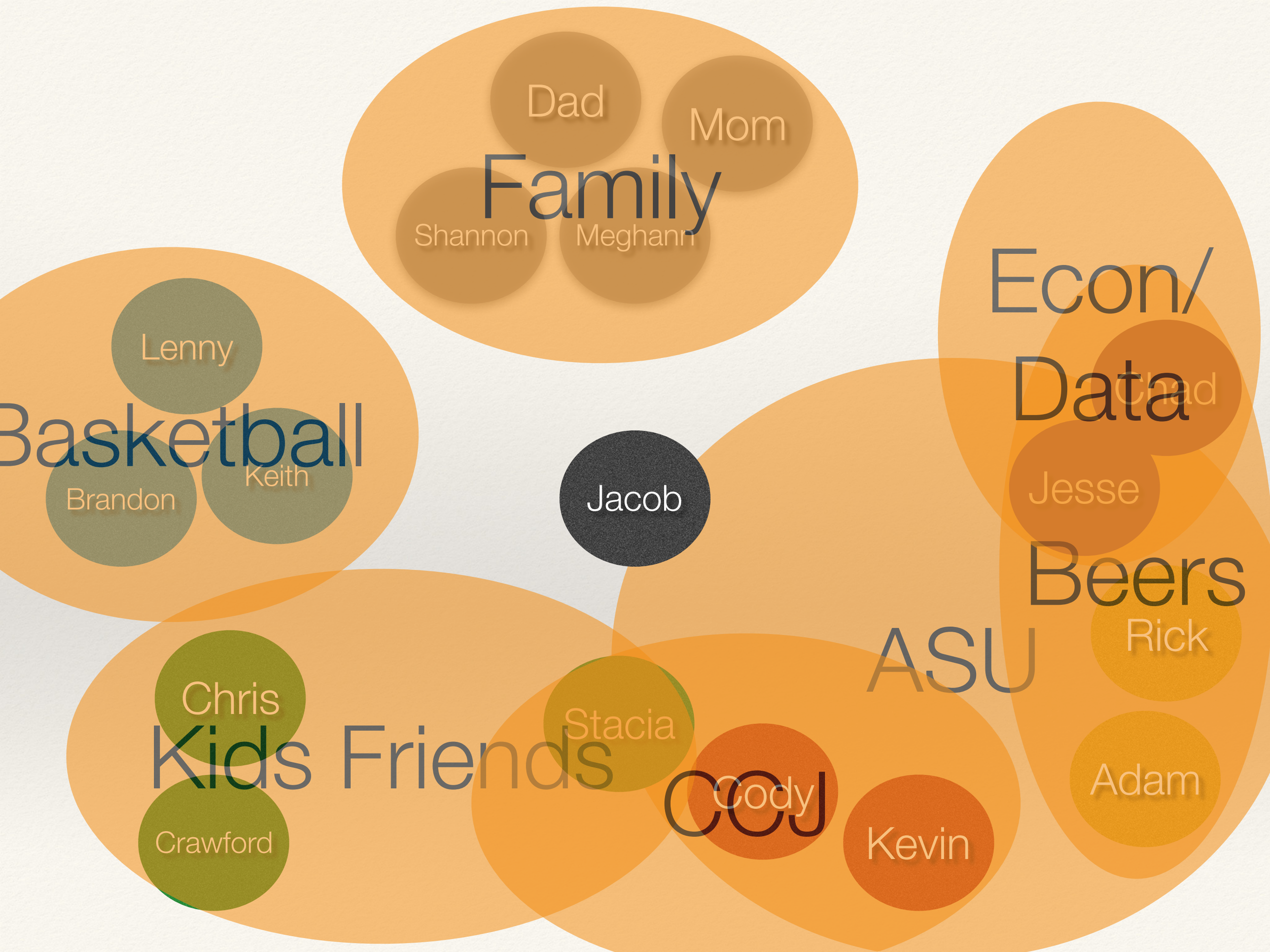
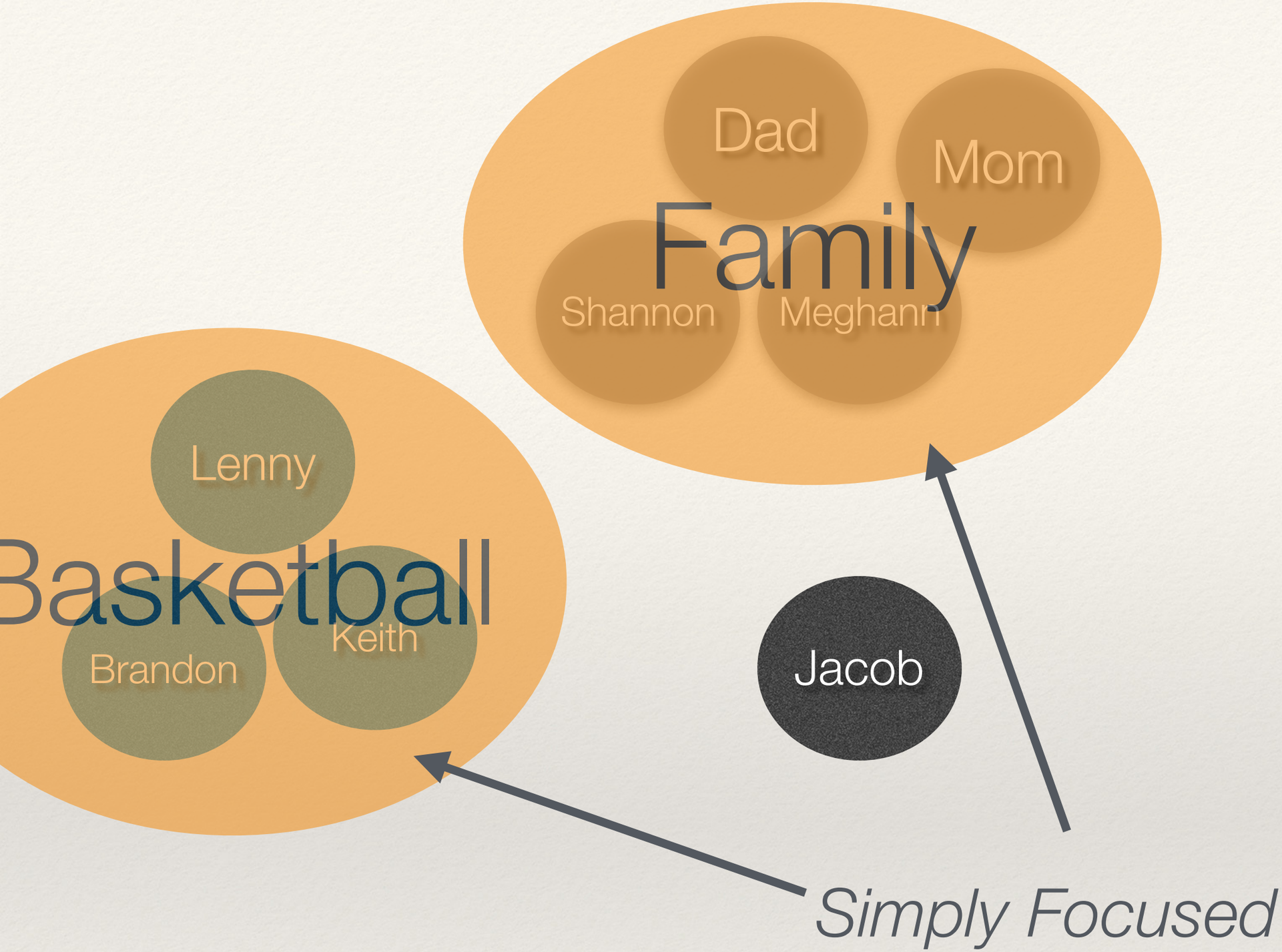
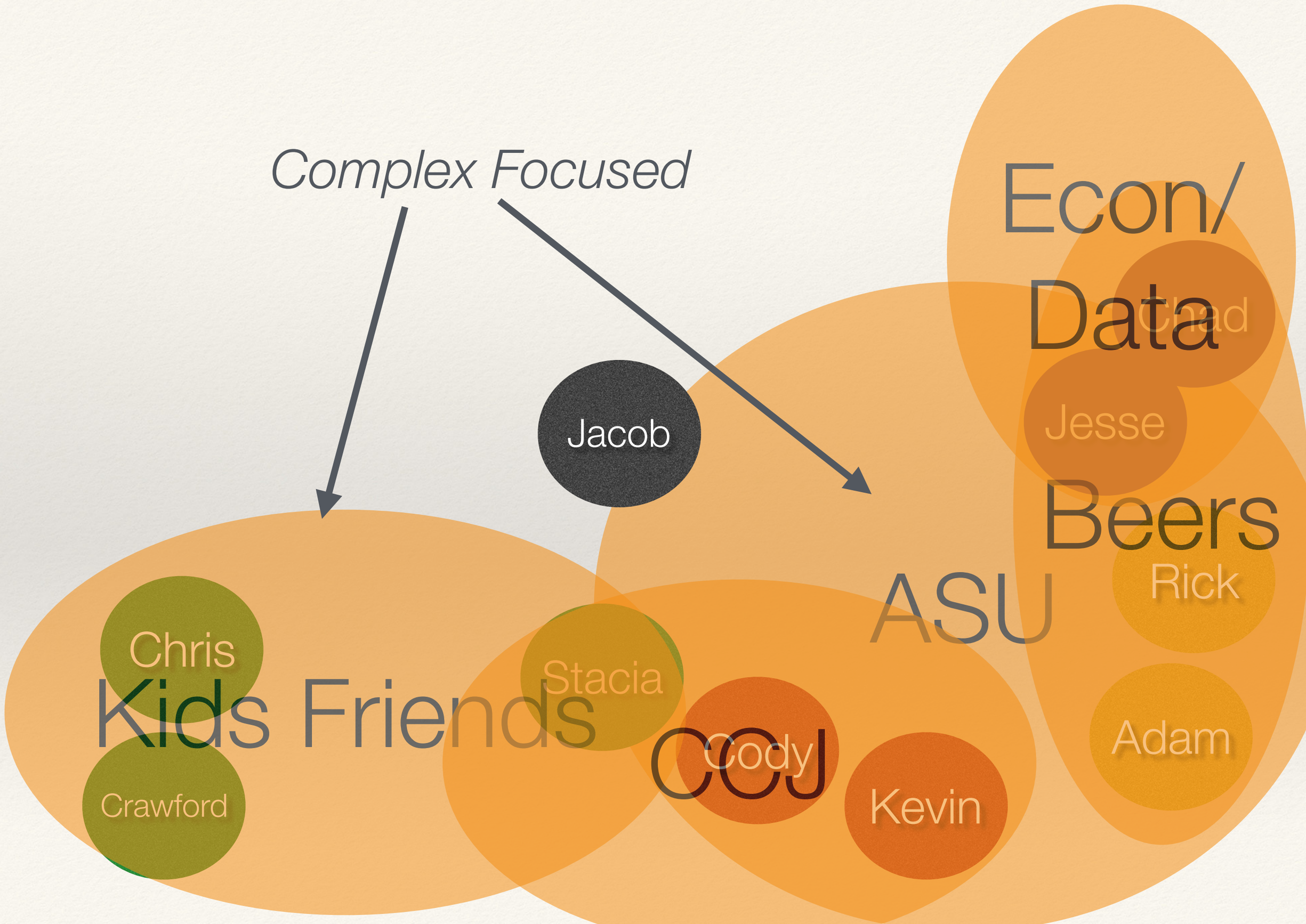
Chris
Stacia
Kids Friends
Cody
COJ
Adam
Crawford
Kevin


Dad
Mom
Family
Shannon
Meghann
Lenny
Basketball
Brandon
Keith
Jacob
Econ/
Data
Chad
Jesse
Beers
Rick
ASU
Chris
Kids
Friends
Stacia
Cody
COJ
Kevin
Adam
Crawford

Focus Theory

- A **simply focused** network is one in which there are multiple foci, but each individual is related to a single focus.
- A **complex focused** network is one where individuals are organized around a number of different foci simultaneously.


Dad
Mom
Family
Shannon
Meghann
Lenny
Basketball
Keith
Brandon
Jacob
Simply Focused


Complex Focused
Jacob
Econ/
Data
Chad
Jesse
Beers
Rick
ASU
Adam
Kevin
Cody
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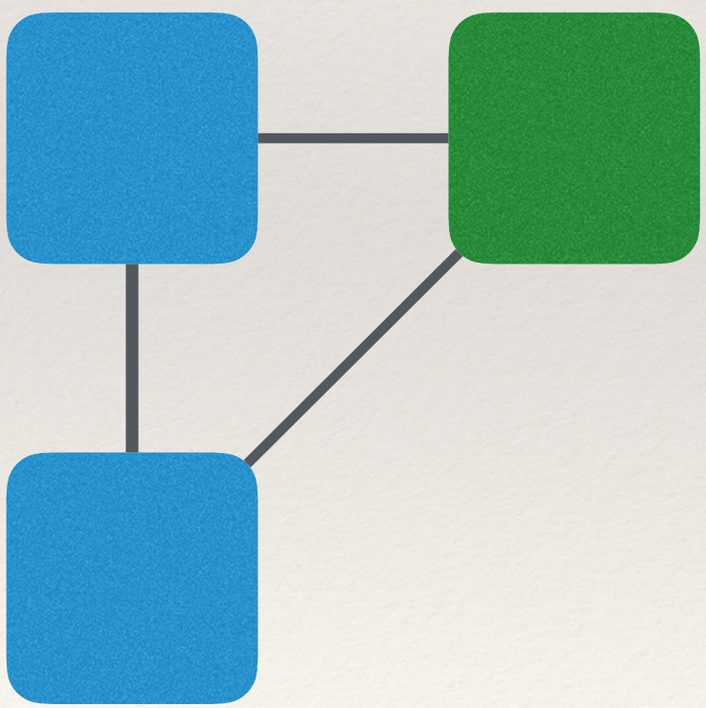
Stacia
Chris
Kids Friends
Crawford

Focus Theory

- An implication of **complex focused** networks is that there is a tendency toward <u>transitivity</u> in the network.



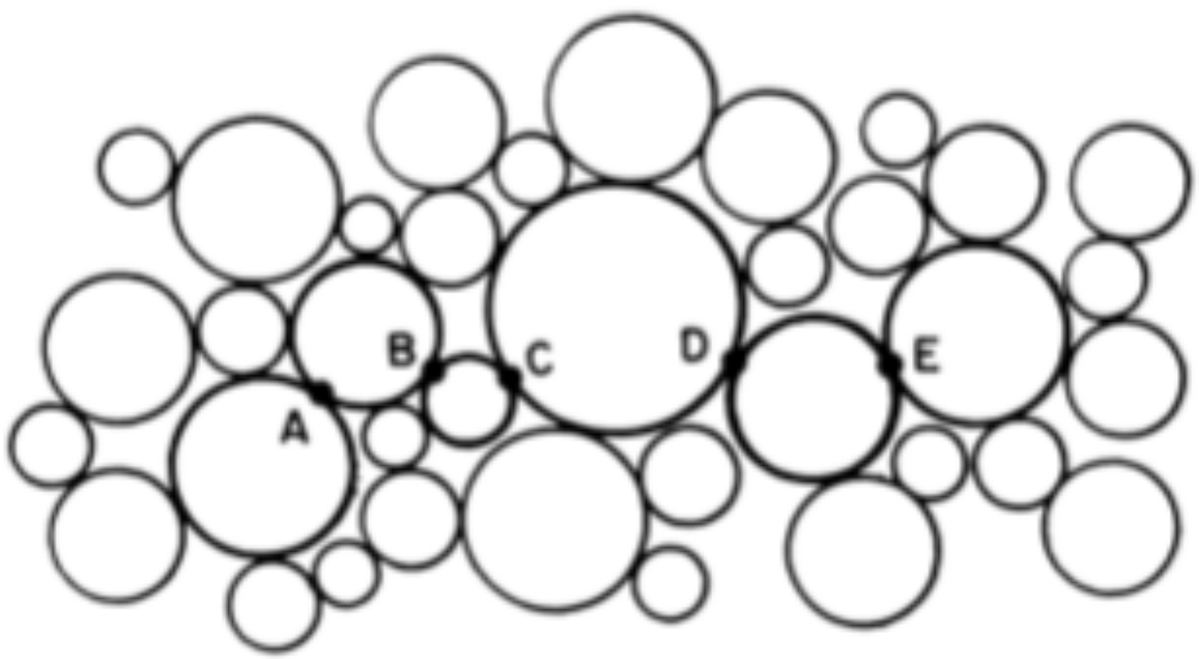
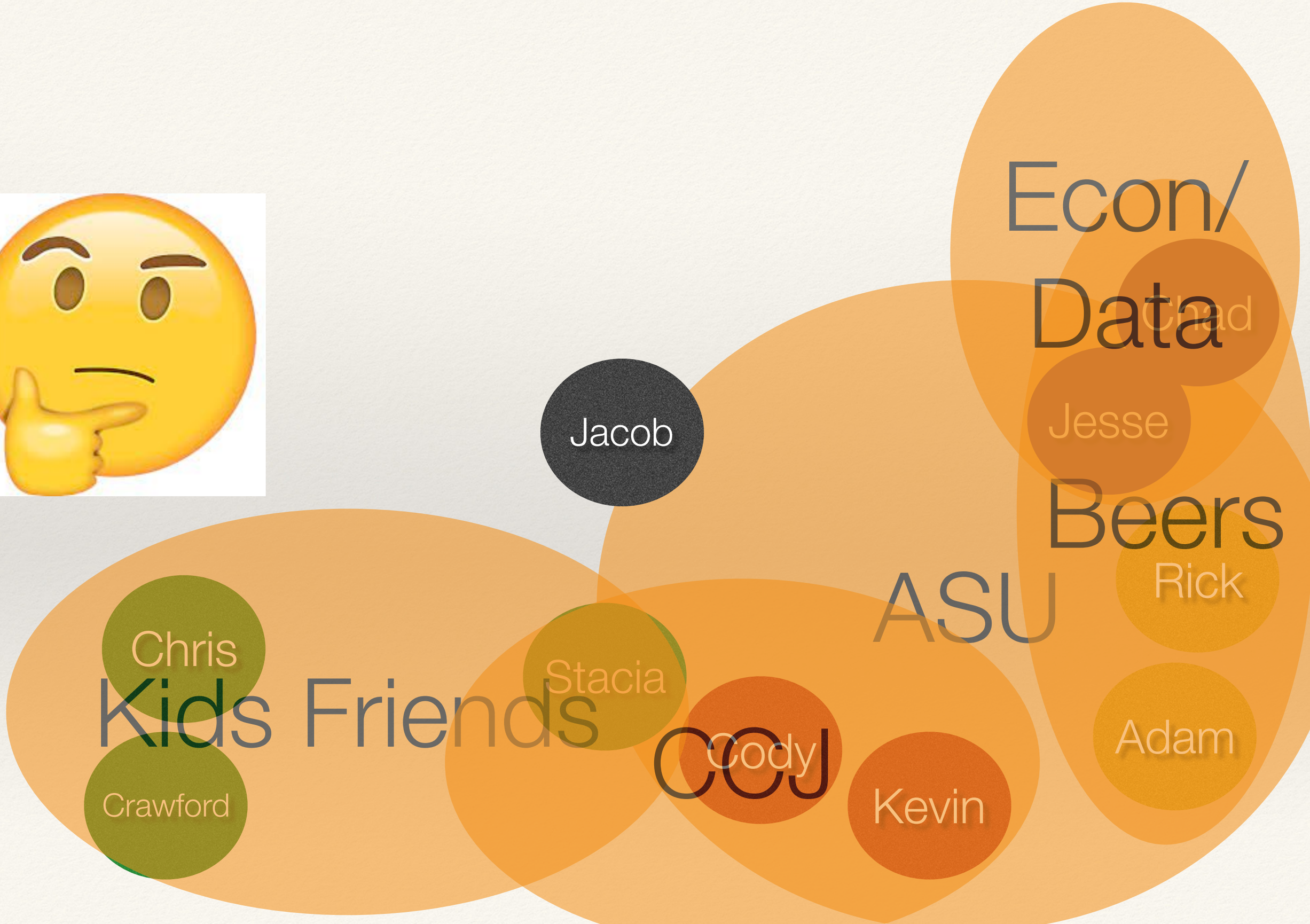
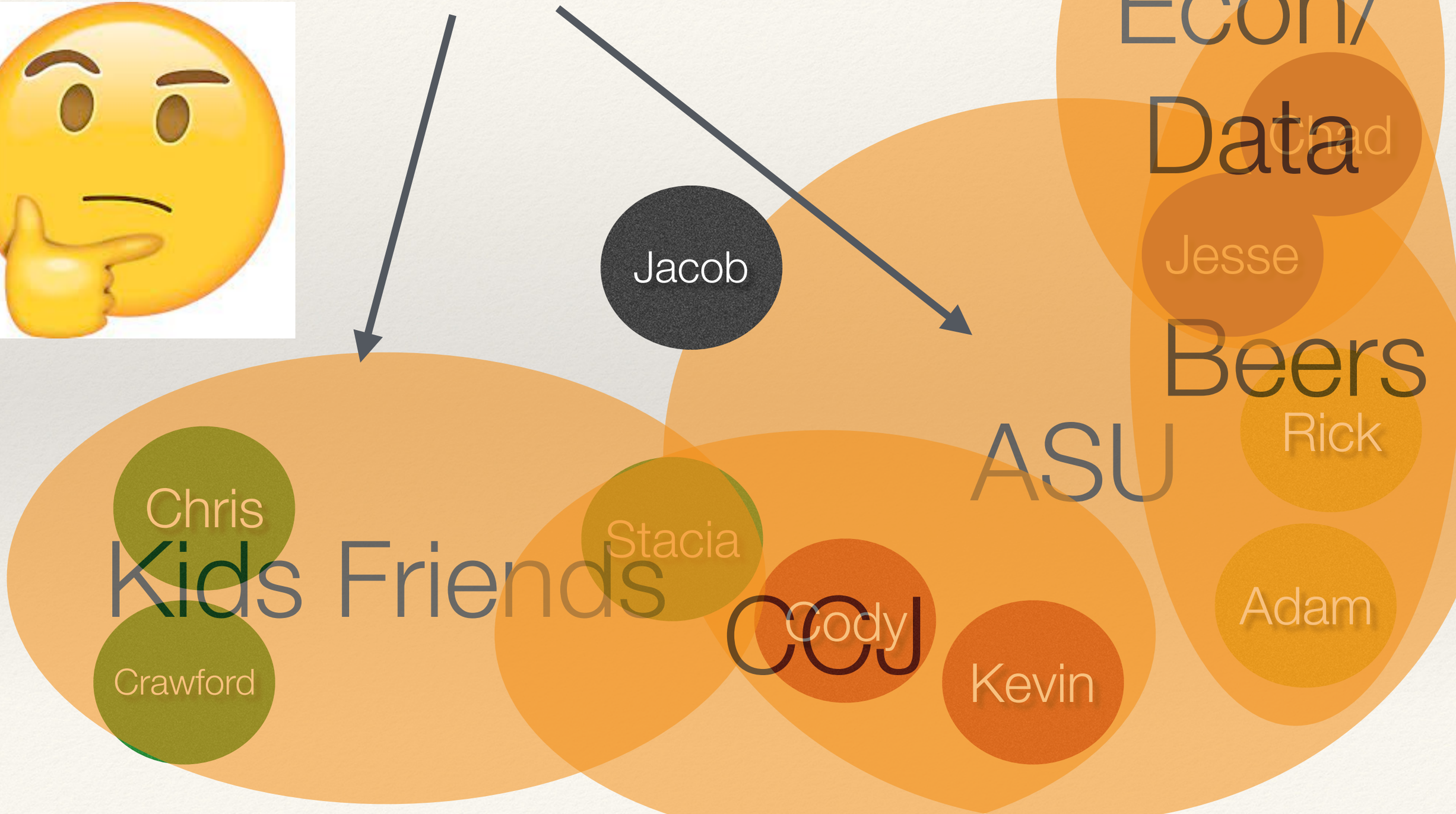


FIG. 1.—A schematic representation of social circles with individuals as the intersections.


Econ/
Data
Chad
Jesse
Jacob
Beers
Rick
ASU
Chris
Stacia
Kids Friends
Cody
COJ
Adam
Kevin
Crawford

Chris and Crawford don't know Chad or Jesse, but they enjoys drinking beers…



Questions?

Break

Discussion

Network Theories and Theories of Networks*

	NETWORK THEORIES ("networks as *cause*")		THEORIES OF NETWORKS ("networks as *effects*")
	Explanatory Goal		*Explanatory Goal*
Explanatory Model	Social Capital/ Performance ("why are the benefits?")	Homogeneity ("why are nodes similar?")	Network Structure ("why is the network this way?")
Network Flow (ties as pipes)	<u>Capitalization</u> Definition: Acquisition to resources through ties and this influences human capital which contributes to performance. Examples: Access to unique information via bridging ties. Information control benefits of structural holes. Solving problems through access to diverse knowledge.	<u>Contagion</u> Definition: Nodes become similar through a process of "infection" where various "bits" are passed from one node to the other. Examples: Diffusion of innovations. Peer influence. Disease transmission.	Examples: Homophilous Selection ("why do people with the same attitudes cluster together? They sort into these groups")
Network Coordination (ties as bonds or "prisms")	<u>Cooperation</u> Definition: Networks provide benefits that can coordinate multiple nodes in order to bring all their resources to bear on a problem. Examples: Unionization. Collective efficacy in neighborhoods.	<u>Convergence</u> Definition: Nodes adapt to their environments, and as a result nodes with similar structural environments will demonstrate similarities. Examples: Administrative assistants have higher levels of communication in organizations.	Examples: Popularity ("why do some individuals receive more ties than others?")

*Adapted From Borgatti and Halgin (2011) and adams (2020).