

Social network of recruits

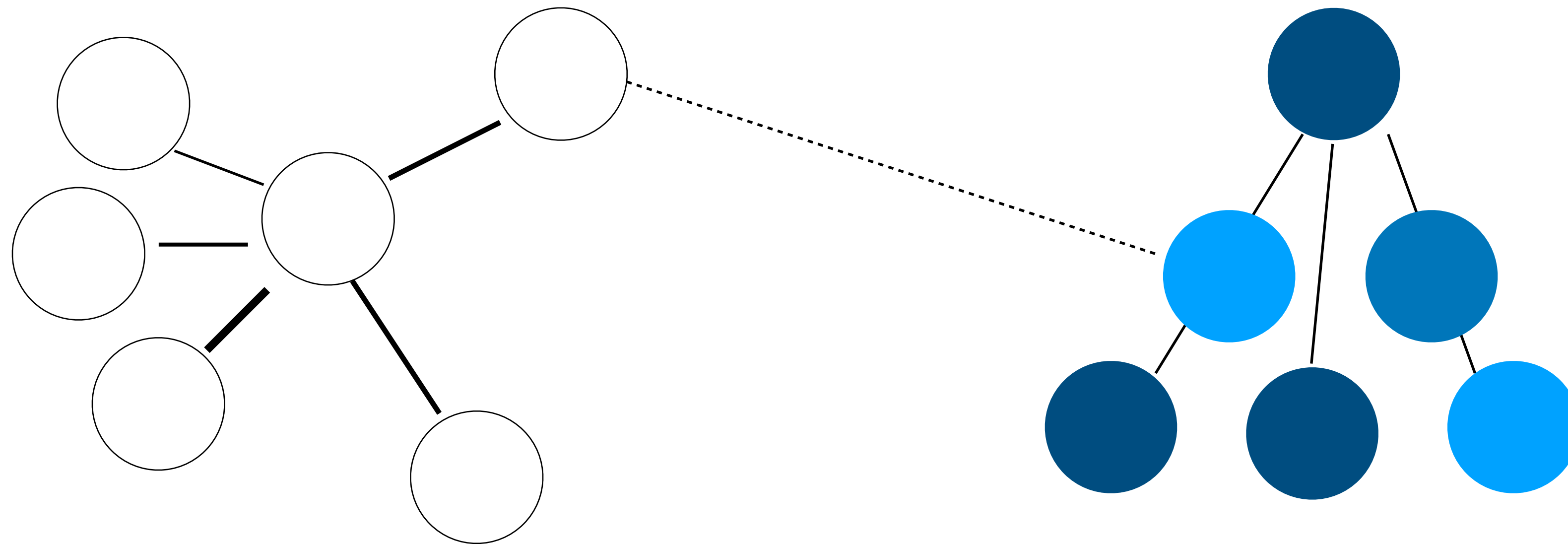


Figure represents an existing social network.

Nodes are people

With ties capturing connections between individuals

Ties are connections between individuals

More ties (depicted here as a heavier weight) indicates more connections between individuals

(Family, social, work, training, etc)

Org to join, with some
Internal institutional structure
(Here arbitrarily in a hierarchical design)

Dotted line is the initial recruitment link
Between the group and the social network

Social network and socialization: Ideal.
Period 1

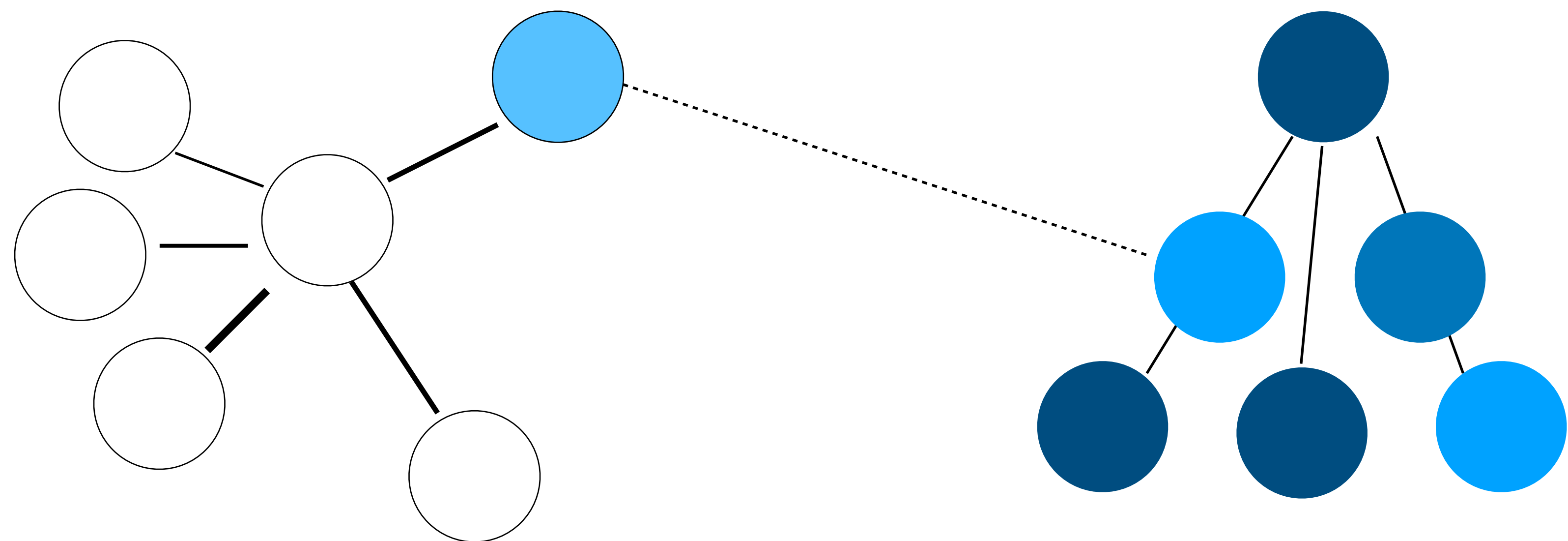
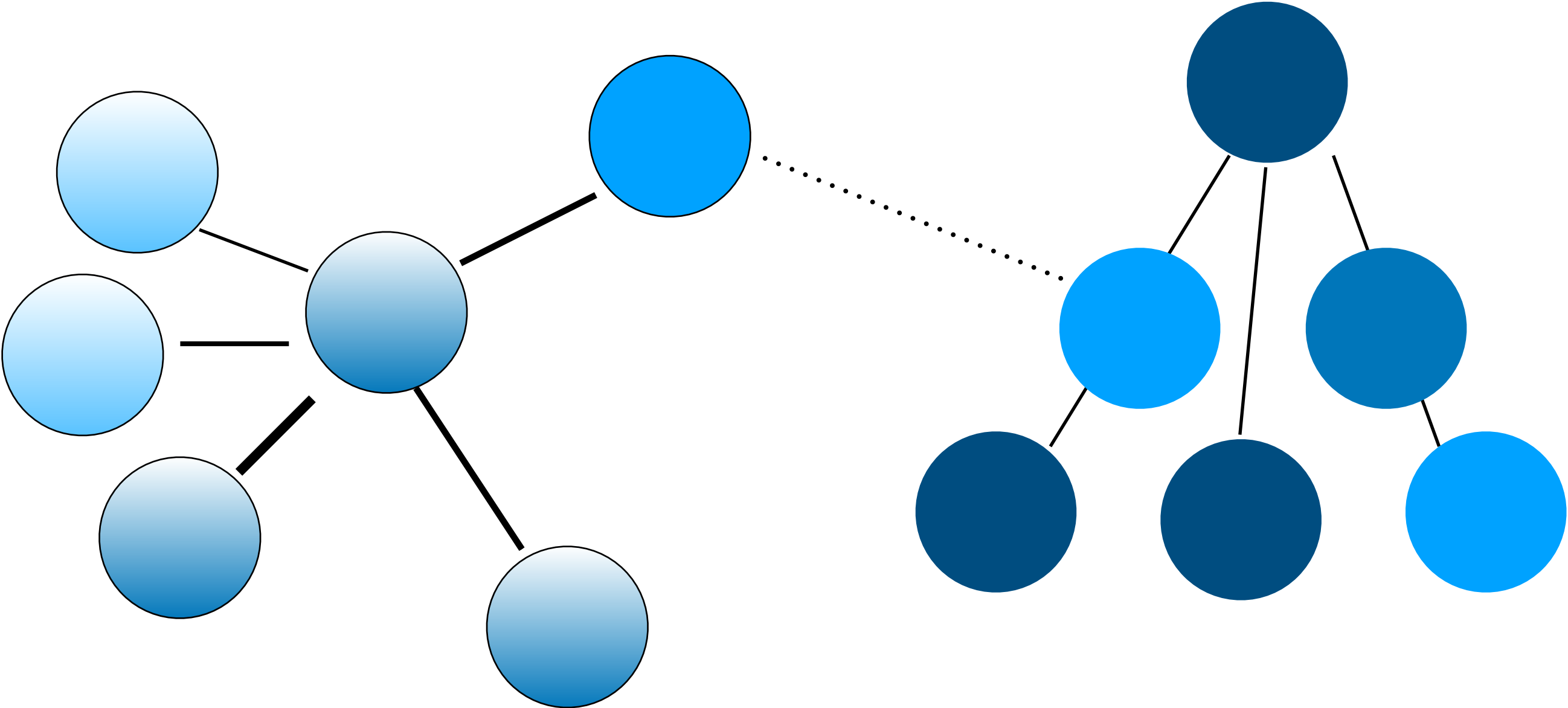


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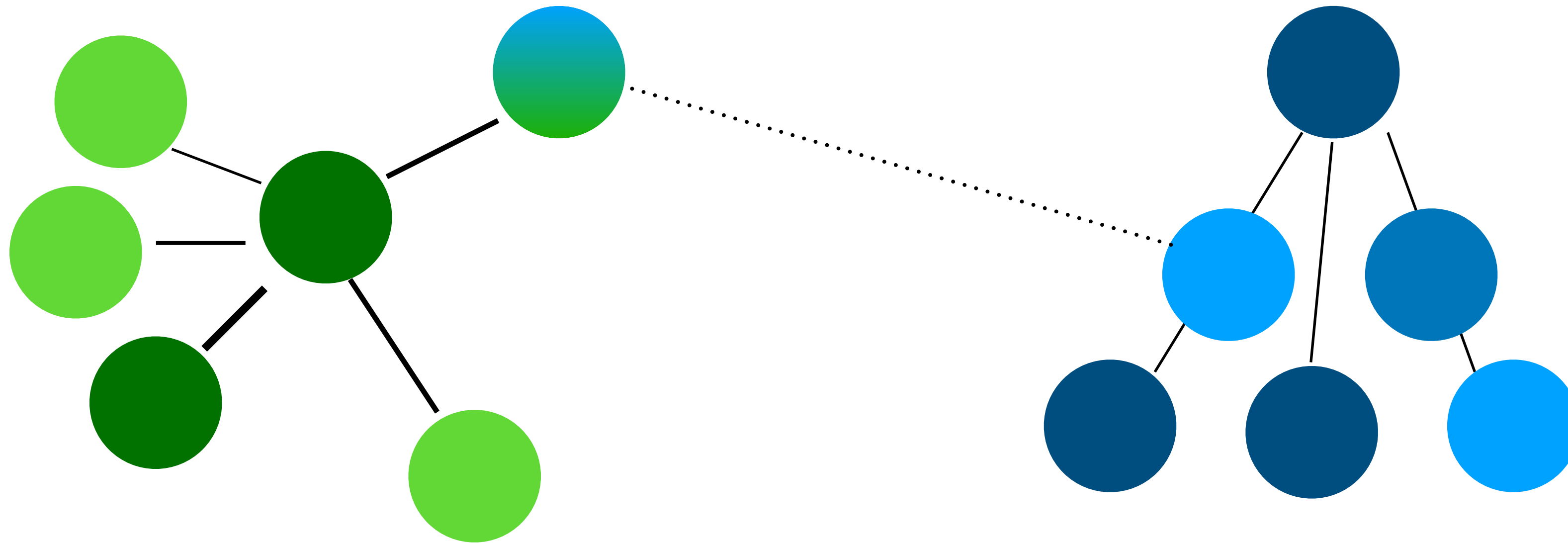
Social network and socialization: Ideal.
Period 2 -N



Socialization passes fastest through
Denser social network ties mean faster
Transmission of the new group ideology

Org to join

Social network of recruits: with competing ideas

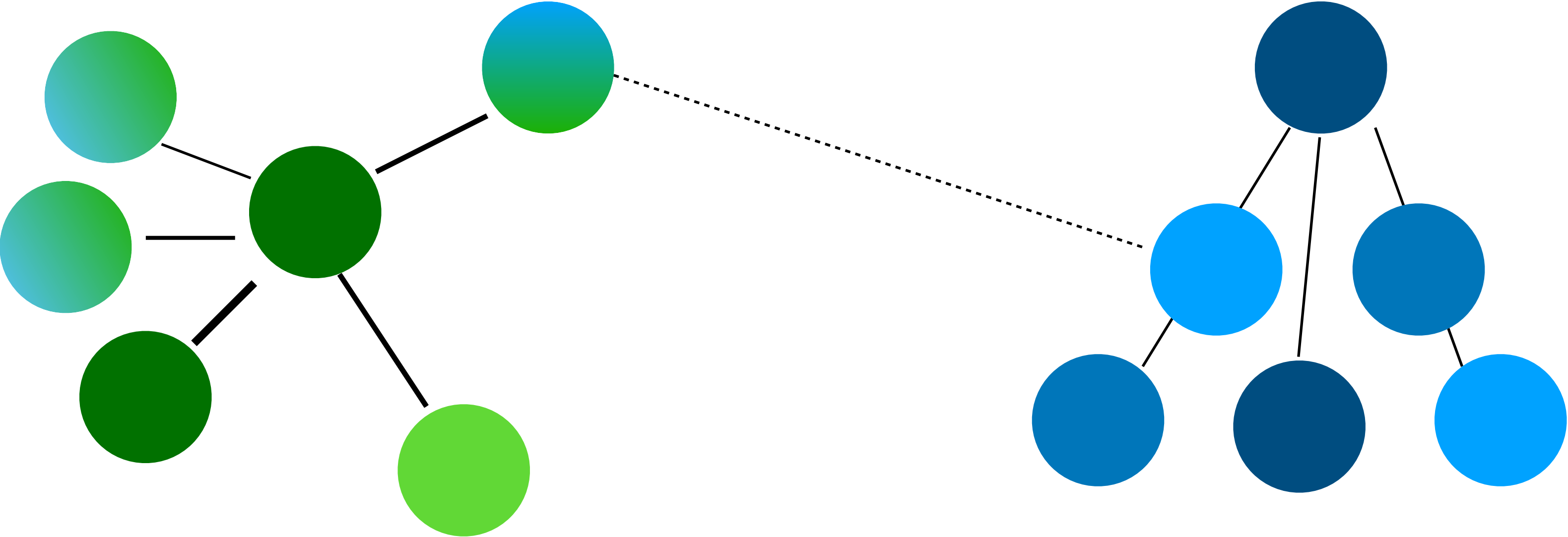


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This models having competing internal goals that the
Group socializing needs to overcome
Depth of color= degree of commitment

Social network of recruits: with competing ideas



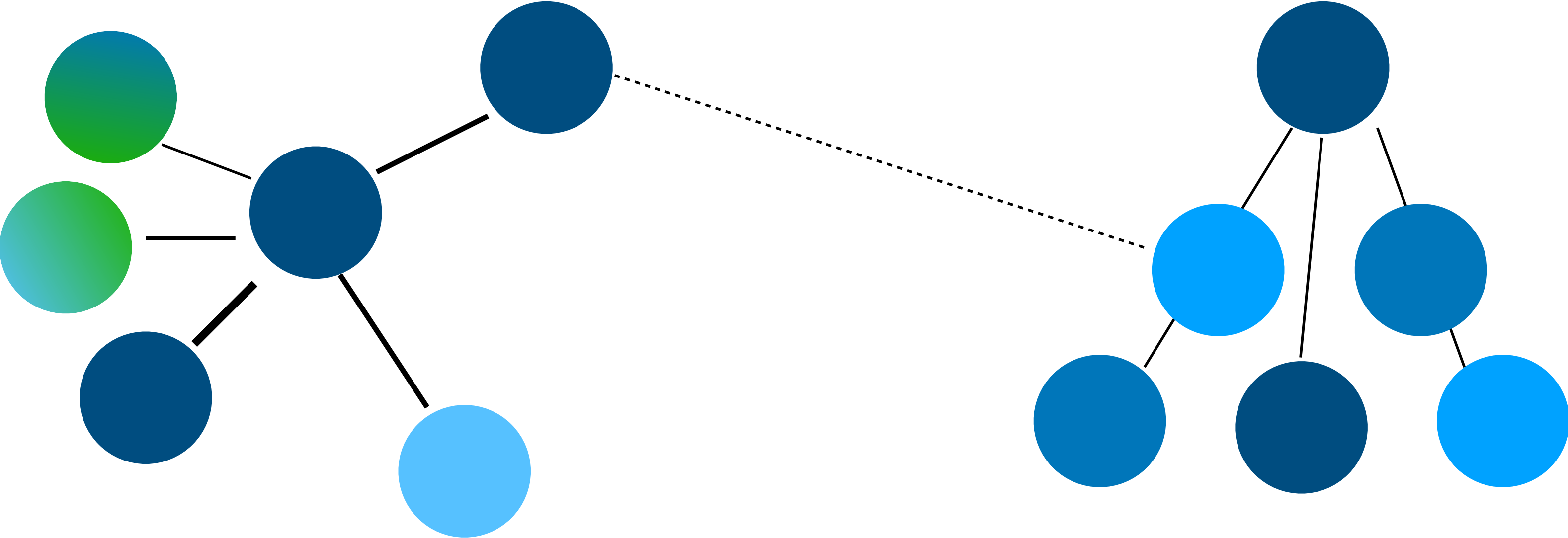
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Commitment to ideology shared based on strength (number) Of ties

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Benefit of recruiting social network: Fast Switch

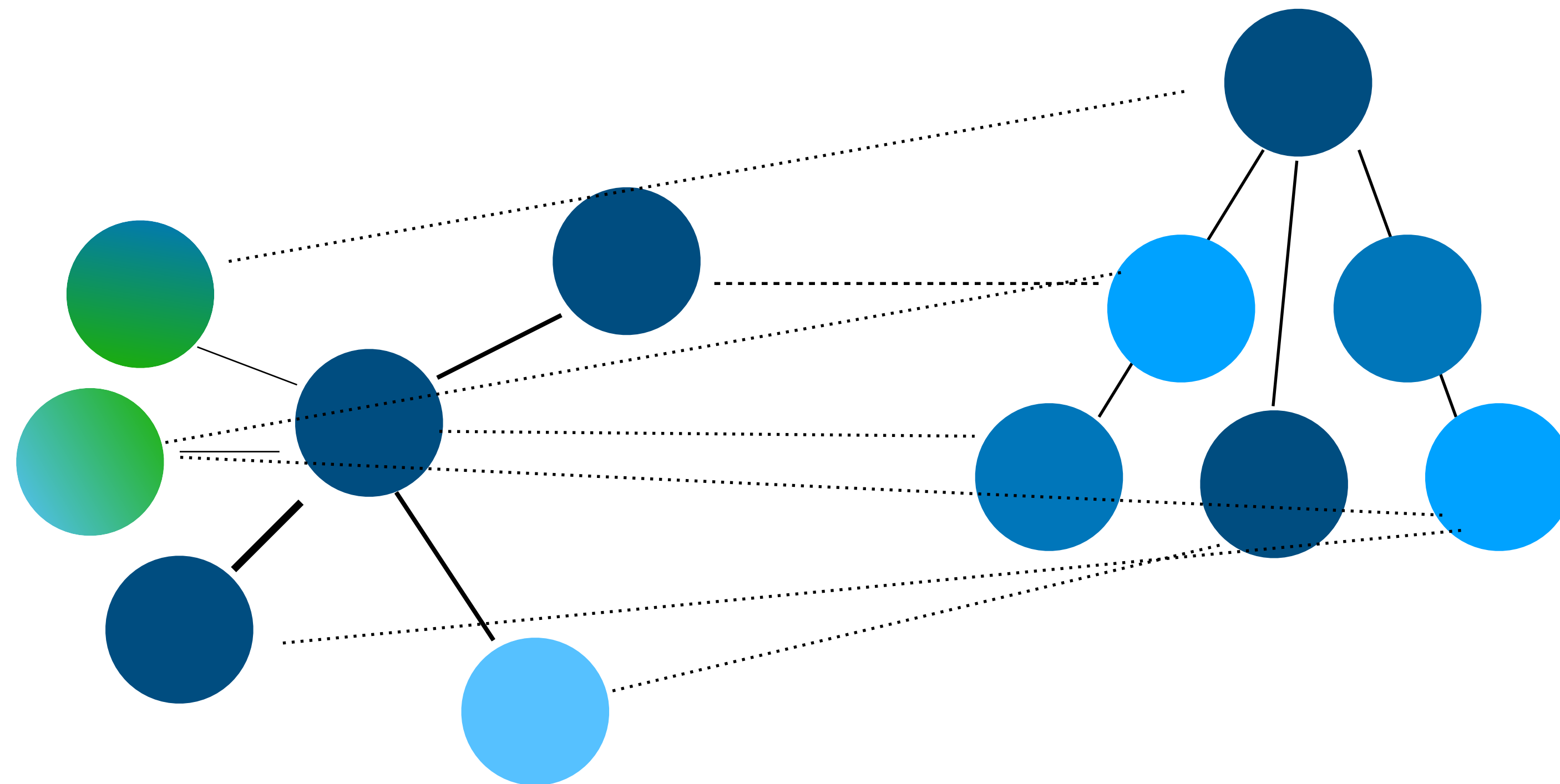


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Benefit of recruiting social network:
Because bin equalizes over ties, once some members
Of a densely-connected subgraph community buy-in,
The network contagion quickly equalizes the acceptance.

Goals of internal socialization: Diminish preexisting links



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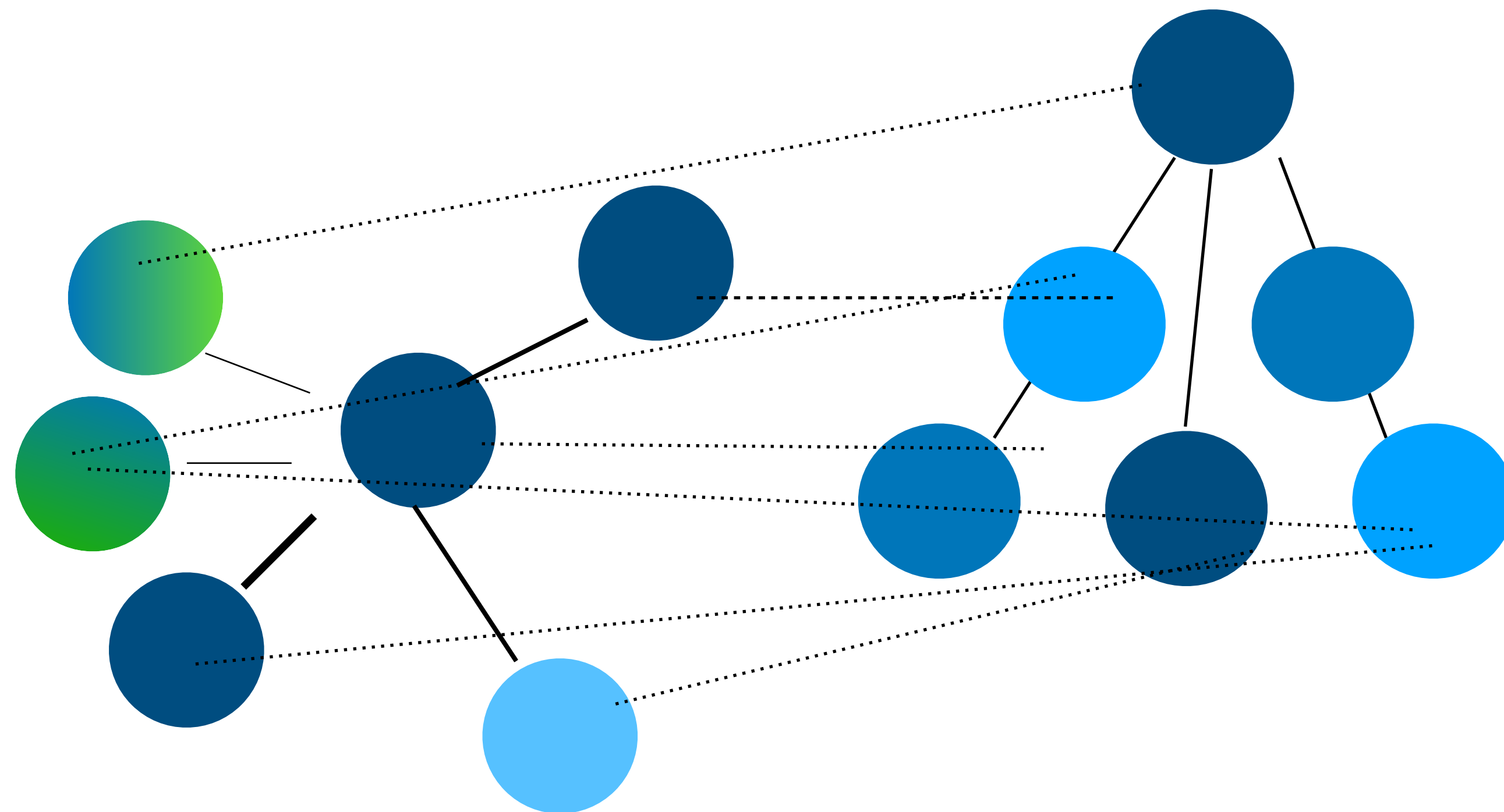
Socialization “targets” the links within the social network, trying to re-wire to the rest of the group

Tie are broken and rewired one at a time though, so dense connections of ties between nodes are more likely to remain.

(Assumption of single rewiring at a time is that ties represent time and modes of interaction, and so they each require time and effort to replace).

Very hard to make the original ties go to zero, because there are some residual connections due to shared history.

End point of internal socialization and integration

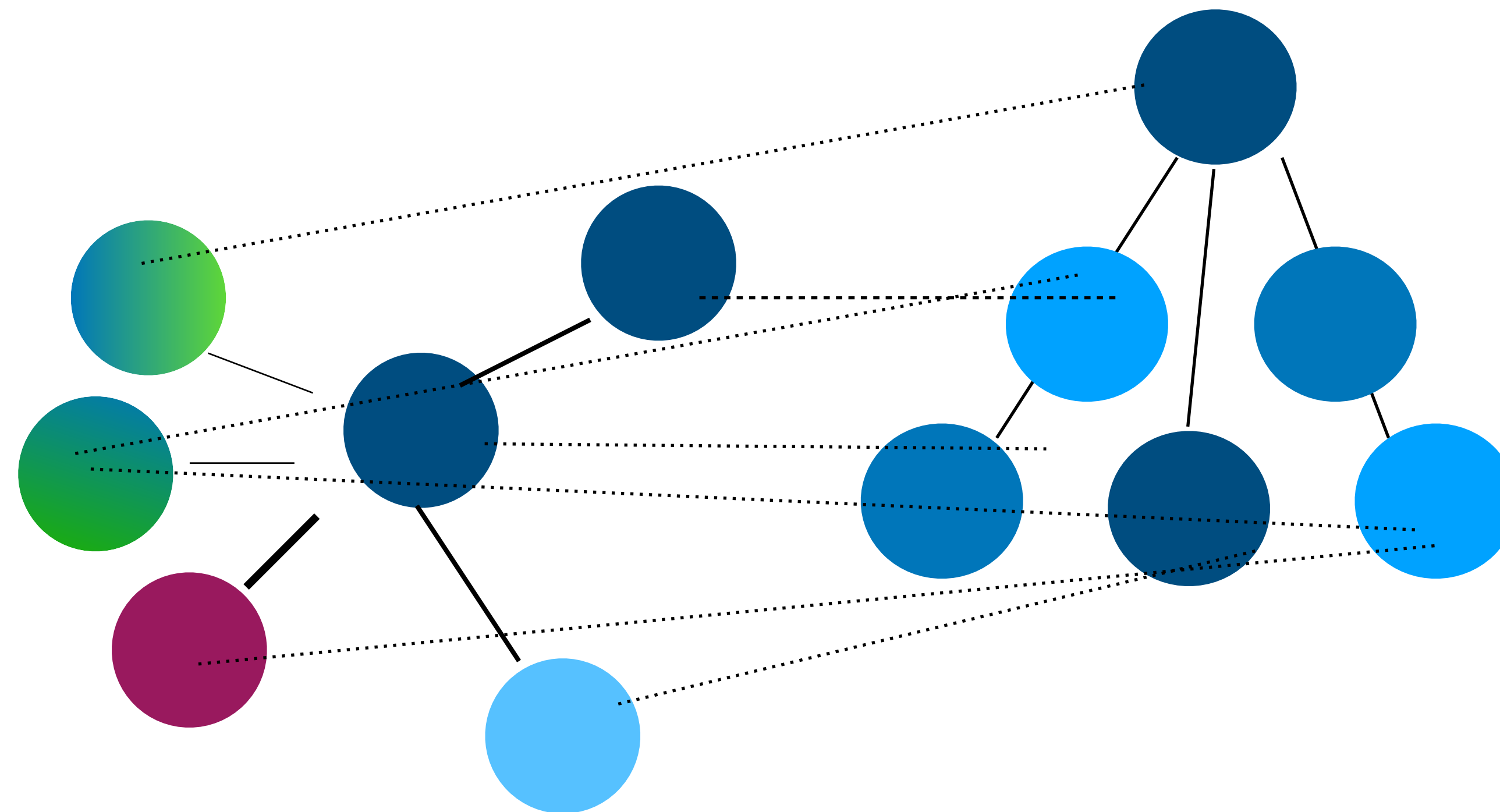


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After degradation of group ties and re-wiring to the larger org and some socialization rounds: have an organization that look like ^

Disaffiliation Process T0

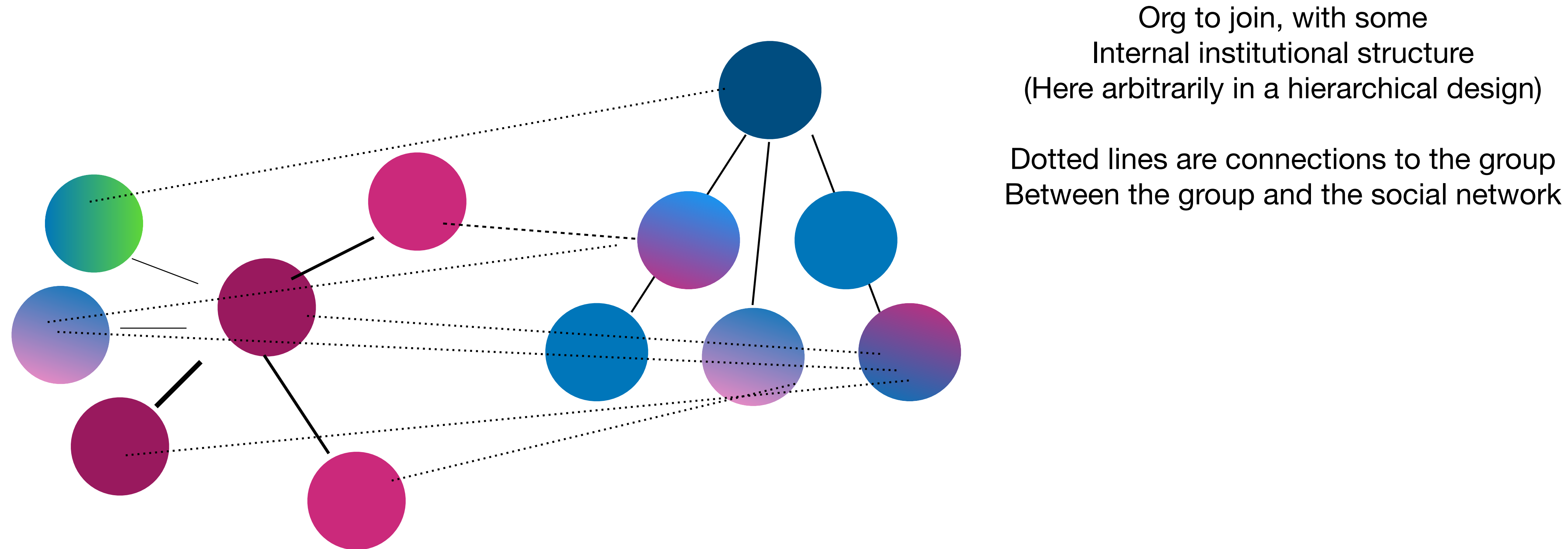


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Now someone in the original social network changes ideology /becomes disenchanted (purple)

Disaffiliation Process T2-TN

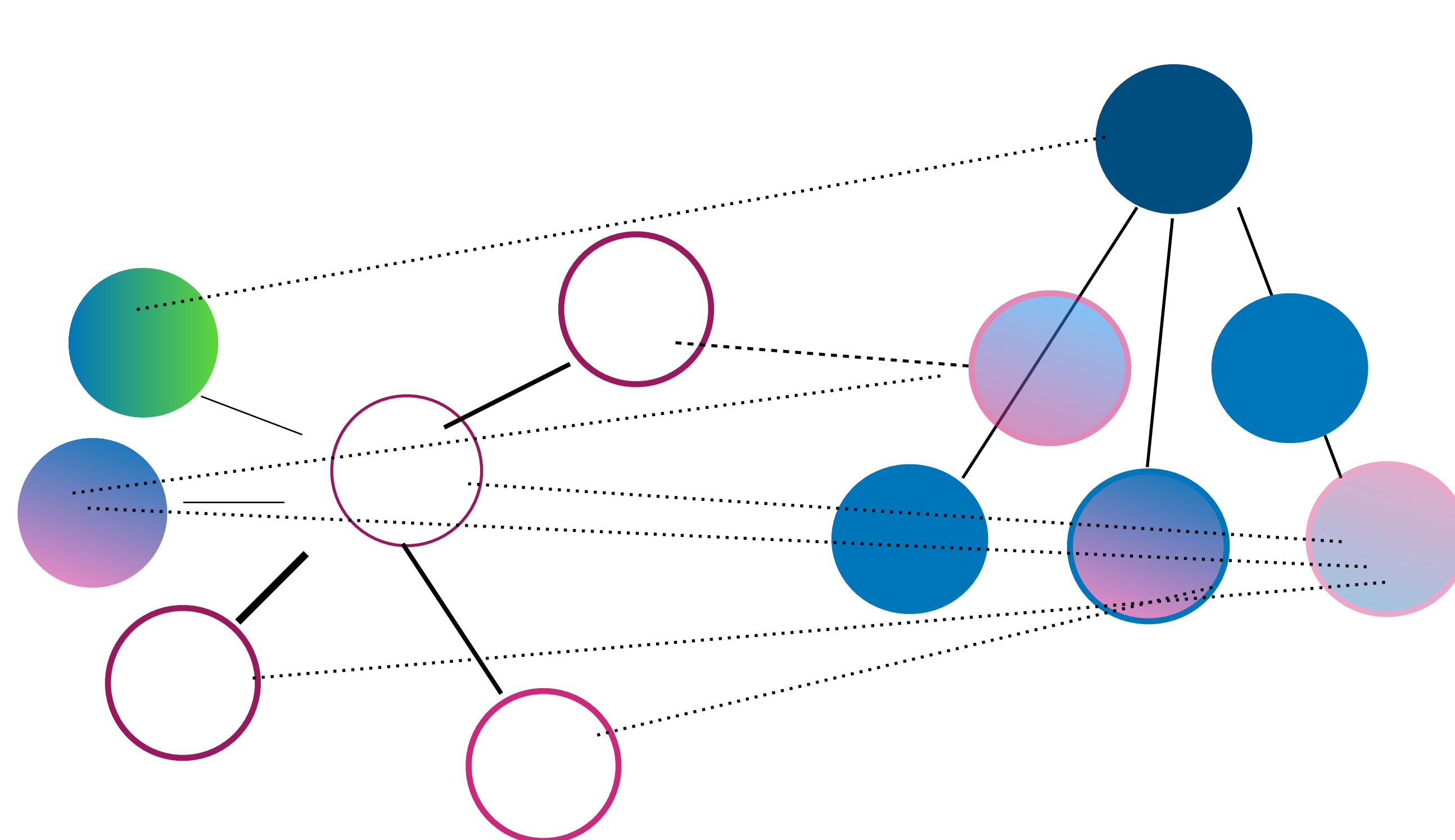


Now someone in the original social network changes ideology /becomes disenchanting (purple)

Their connections shape how their disgruntlement spreads across the existing (and still-strong) networks as well as through the newer ties

(Newer ties are weaker connections— could model old versus new ties in a more complicated way as new ties that are created every period, but the ties are preferential along existing ties (homophily and preferences to continue socializing with those who one enjoys spending time with))

Disaffiliation: Endgame



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The purple “disgruntled” members leave according to whether they are above the “exit” threshold
Here, the “exit” threshold is a heuristic as solid-purple color. And the mixed purple-blue are still in the group but could go either way
The more transparent are the nodes that are close to the exist threshold.

Roadmap for Simulation

0. Each node has an individual “ideology” value

1. Operationalize Entry and Exit via a threshold point of that ideology value

2. Initial distribution of ideology values at the node-level

3. Ideology values standardize across connected nodes according to a contagion function [pro: floor/ceiling (in a high peer pressure context); average (a black-box social contagion context)]

(Note: elegant would be to have the level of ideology standardization reflect how dense the ties are between two nodes. Maybe could set it up so that all nodes have 0-10 ties between them and the node ideology score standardization is: $10 - \# \text{ties} / 10 * \text{original IS} + \# \text{Ties} / 10 * \text{adjacent node scores}$, summed across all nodes and then divided by # of connected nodes.)

4. Enter new network “group” (recruitment into a group)

5. Group changes the ideology value to be closer to group’s ideological point

6. Each round (R), the group rewires N random number of ties in the subgroup (one at a time), replaces that tie with a tie to the larger group nodes

7. After P periods, there is a disaffiliation shock in the original group that drastically changes the affiliation value of a random node far away from the rest of the group (and far under the threshold value)

8. The equalizing function that represents tie-based contagion of ideology updates for all nodes in the network

9. Collect what portions of the network fall under the threshold; and what proportion of the original entering group leave

Drafting the Updater

First draft:

Constrain the number of possible ties that any node can have to 10. The justification is that ties proxy attention and time spent between nodes. These ties can be physical proximity and time spent together, but can also capture online attention and time.

The implied model of the networking is that ideological “contagion” is a result of time and attention in proximity. More ties = more interactions between two nodes. Capping the max number of ties per node at 10 to make the updater simpler and also to reflect cognitive and time limits that someone can spend; note there is a mismatch though on the max output, which one might think of as being basically unlimited in an online context, but bounded in an in-person context. [[Develop an appendix model for an online community in which the ties are directed and model attention that the node is giving versus what they are sending. Model the ties out with a scale-free distribution, so a few nodes are the main ‘influencers’ in the network]]

Options to rewire after joining

- Could rewire randomly within org/ randomly within a selected tier of organization. Benefit: keeps the sense of private information
- Could rewire with ideological homophily. Captures dynamics in which the hardcore believers self-associate and the more ambivalent also self-associate. Easy enough to code both ways.
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Drafting the Re-wiring Step

First draft:

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