

S3 – Supplementary Material – Illustrations

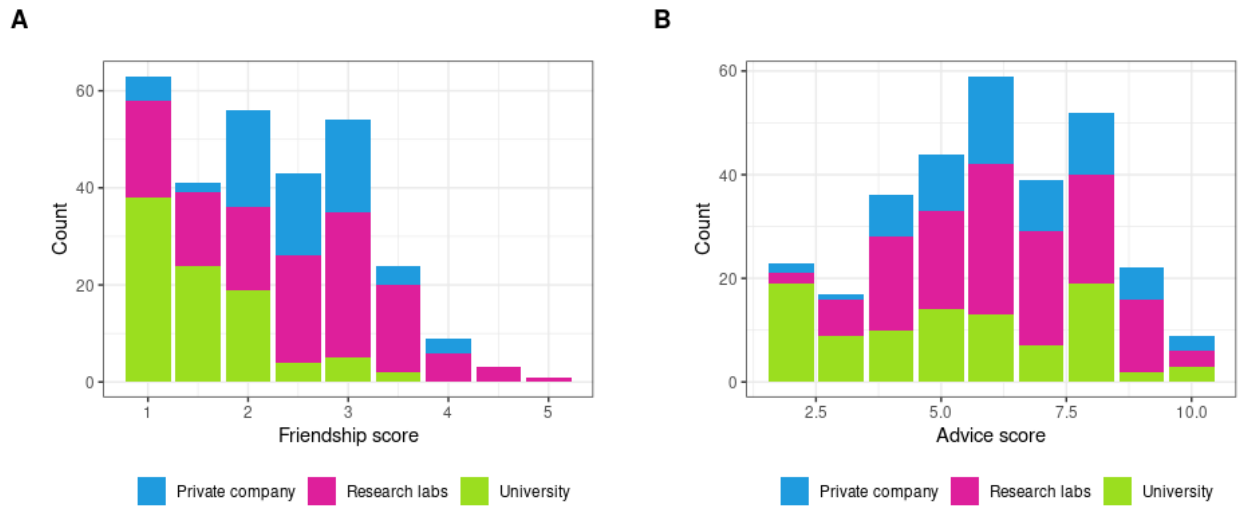


Illustration S3-1: (A) Frequencies of interpolated self-reported (A) friendship and (B) advice seeking scores among team member dyads by organizational context.

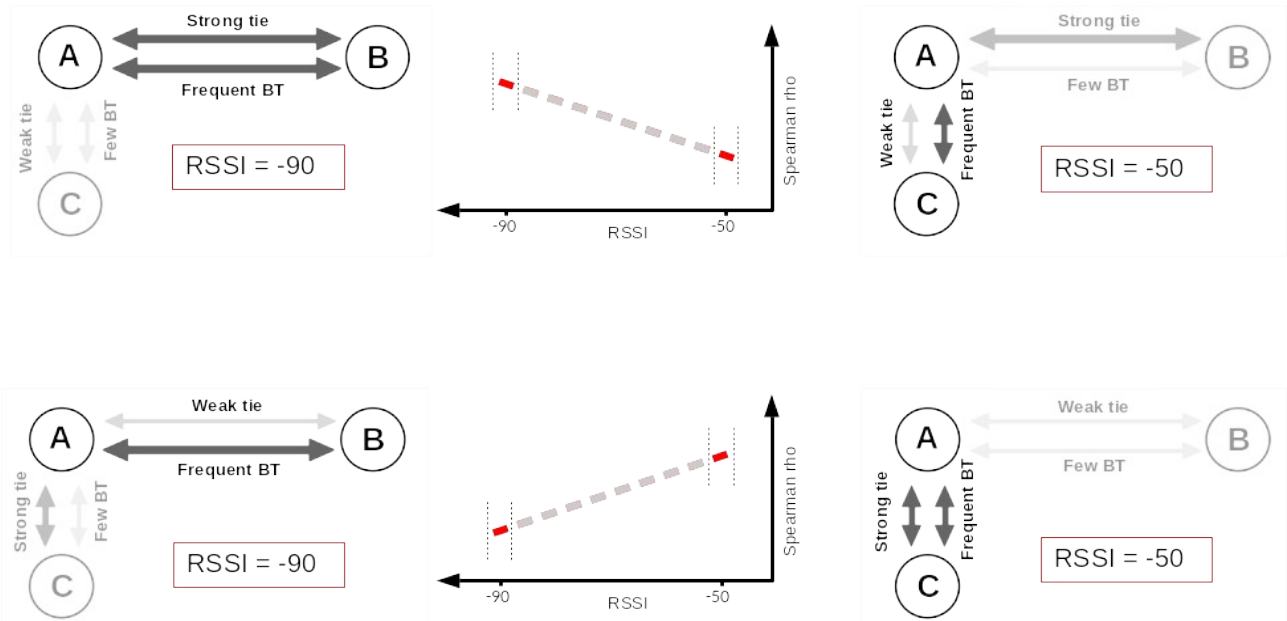


Illustration S3-2: Four possible scenarios of high versus low correlation coefficients at greater spatial distance (RSSI = -90) and closer spatial proximity (RSSI = -50) in combination with strong/weak self-reported measures. Note, that a row-wise analysis explains varying correlation coefficients as a result of differing RSSI levels while self-reported measures remain stable. A column wise analysis explains varying correlation coefficients as a result of differing self-reported measures while the RSSI level under consideration stays fixed. The same spatial configuration of proximity (A-C) and distance (A-B) among team member dyads underlies all four scenarios. Lower RSSI levels (e.g. -90) will register predominantly those devices that are at greater spatial distance to each other (indicated by the “Frequent BT” between A-B on the left column). Those being in closer spatial proximity (A-C) will generate less BT detections at this specific “long-distance” RSSI level. The reason for that is, that devices being closer together will generate BT detections at the corresponding higher RSSI levels (e.g. -50) indicating precisely their actual closer spatial proximity (see right column and “Frequent BT” between A-C). In combination with self-reported ties, we can thus infer that a strong, positive correlation coefficient at high RSSI = -50 level suggests that friends are frequently found in close spatial proximity while non-friends are found in greater spatial distance. A strong, positive correlation coefficient at a low RSSI = -90 level on the other hand suggests, that friends are frequently found in greater spatial separation while those team members who coincide in closer spatial proximity are also those who indicate weaker friendship ties.

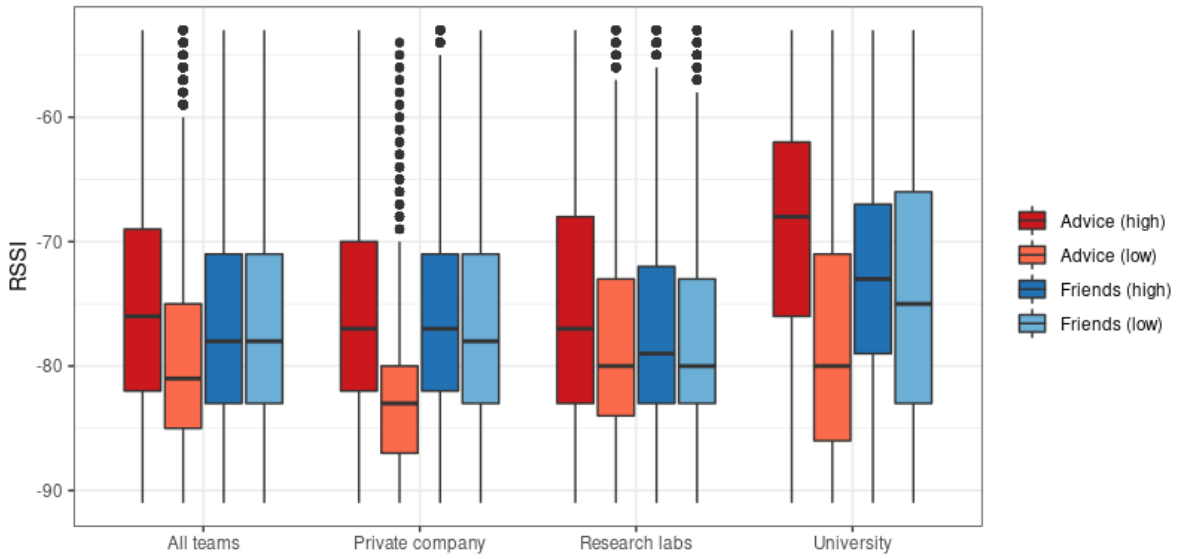


Illustration S3-3: Boxplots of RSSI quantiles between team member dyads scoring in 1st quartile (light-red, light-blue) and in the 4th quartile (dark-red, dark-blue) of self-reported friendship and advice seeking scores. Darker color means stronger self-reported ties.

Work environment layouts

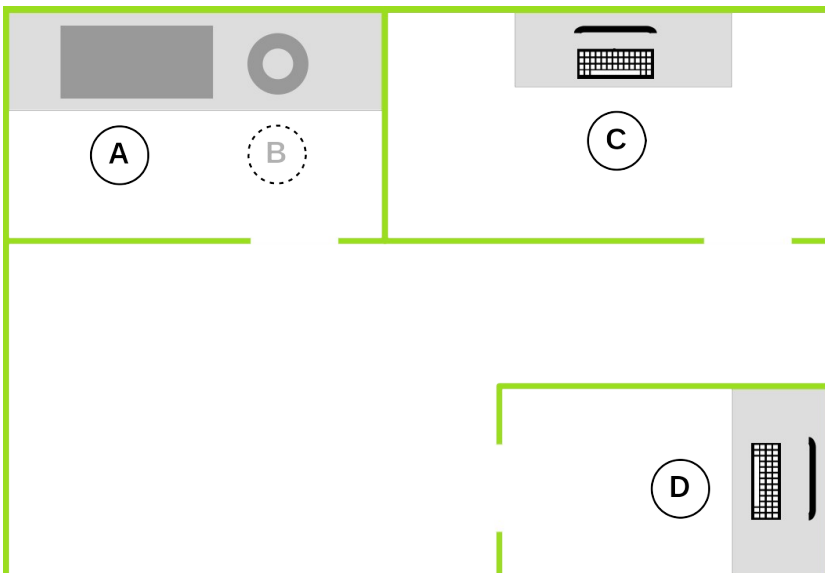


Illustration S3-4: University based work environment: scarce spatial and temporal overlap of team members across different office spaces and laboratory work benches.

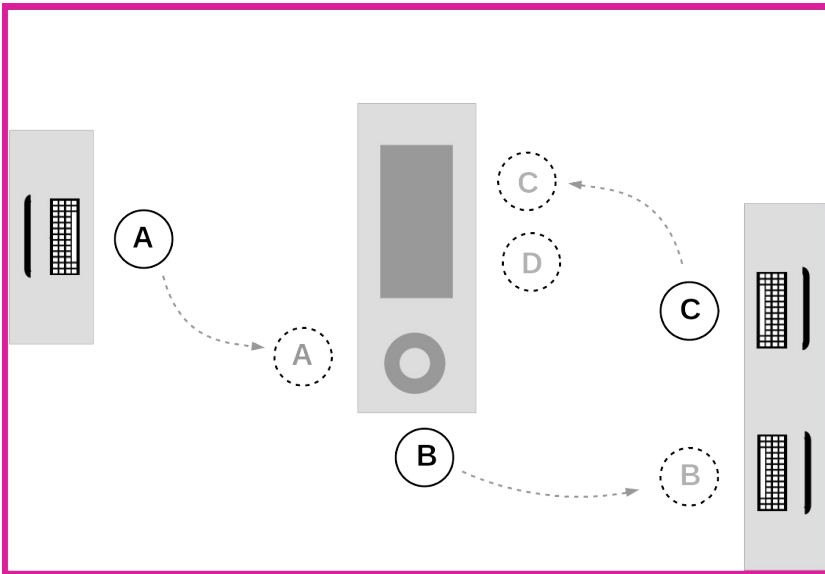


Illustration S3-5: Research lab work environment: spatial and temporal overlap of mobile team members switching between desktops and laboratory work bench.

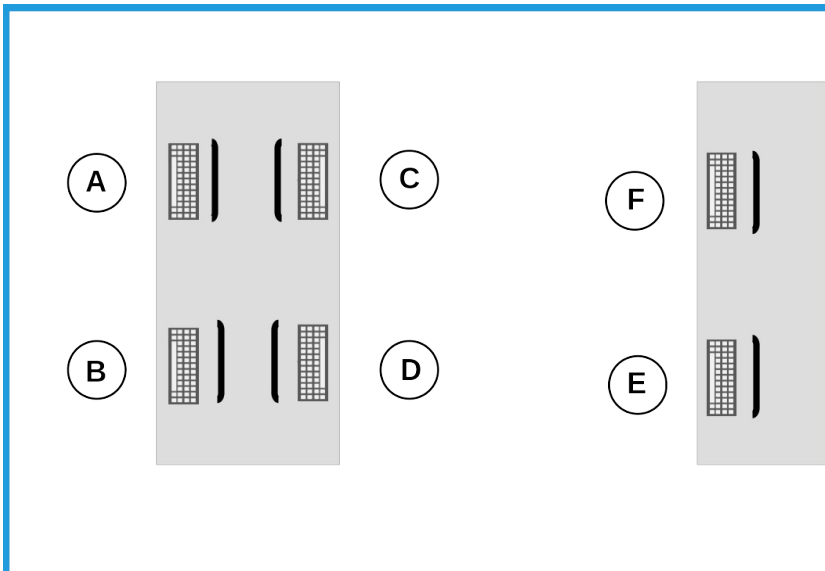


Illustration S3-6: Private company based work environment: spatial and temporal overlap of team members at static work stations.

Reference distribution of correlation coefficients (simulated vs. observed)

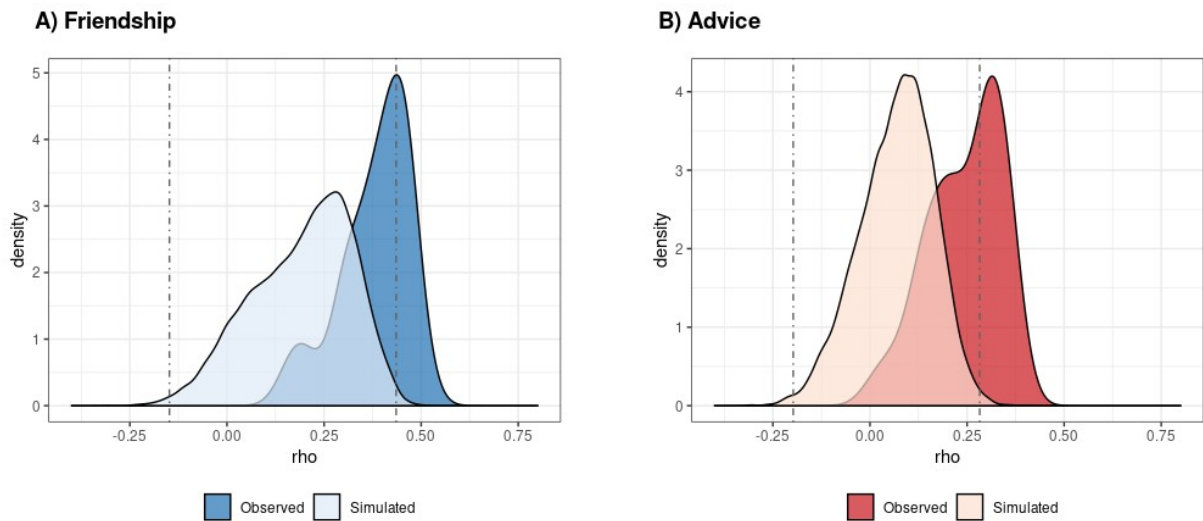


Illustration S3-7 All teams. Observed versus simulated reference distribution of correlation coefficients between BT detections for (A) friendship and (B) advice seeking ties. Dotted vertical lines indicate quantiles (lower = 0.5% and upper = 99.5%) for simulated reference distribution.

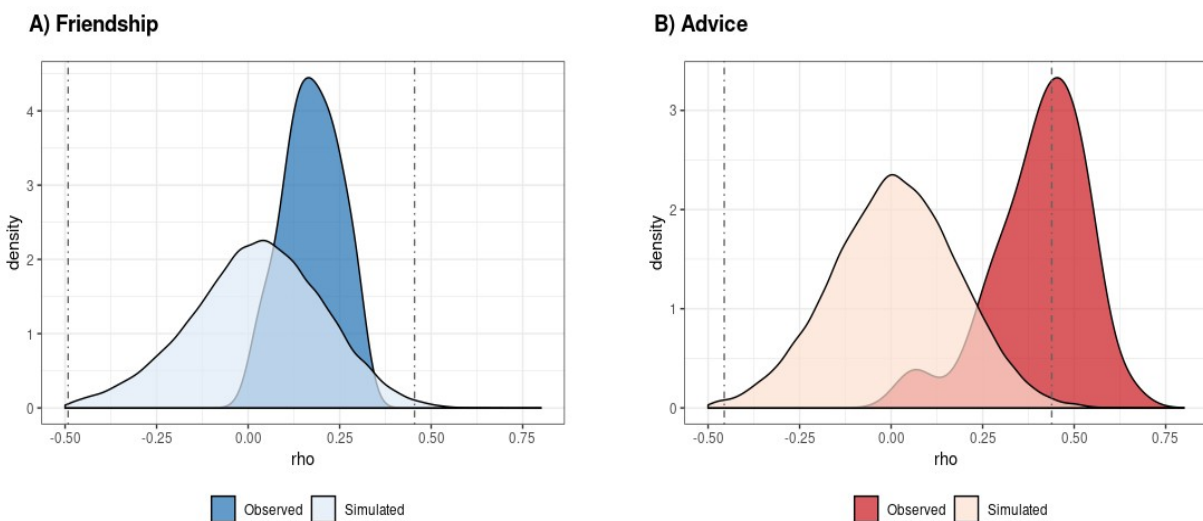
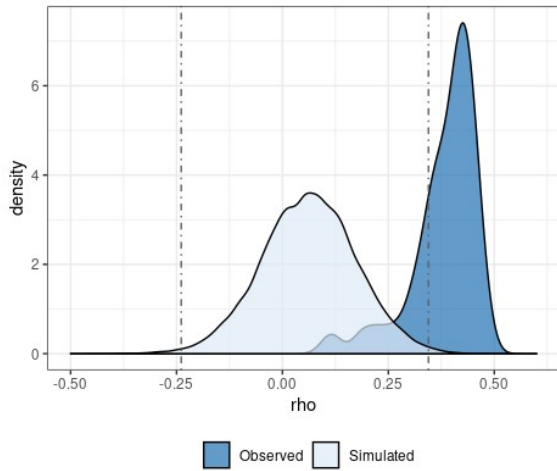


Illustration S3-8 University based teams. Observed versus simulated reference distribution of correlation coefficients between BT detections for (A) friendship and (B) advice seeking ties. Dotted vertical lines indicate quantiles (lower = 0.5% and upper = 99.5%) for simulated reference distribution.

A) Friendship



B) Advice

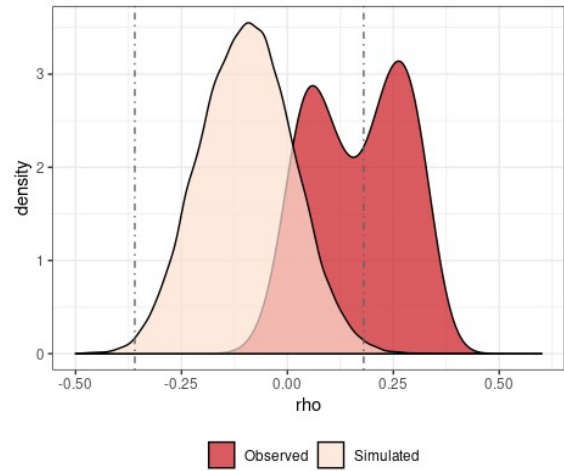
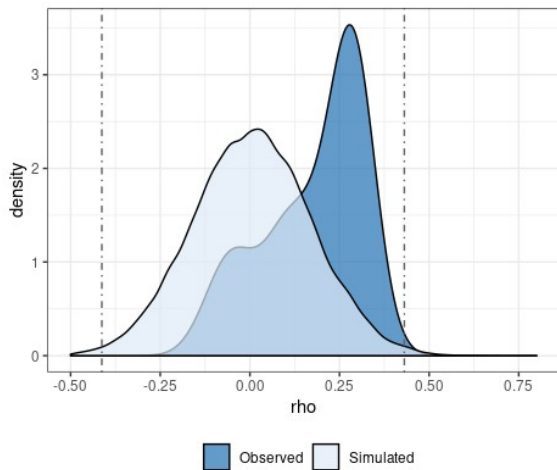


Illustration S3-9 Research lab based teams. Observed versus simulated reference distribution of correlation coefficients between BT detections for (A) friendship and (B) advice seeking ties. Dotted vertical lines indicate quantiles (lower = 0.5% and upper = 99.5%) for simulated reference distribution.

A) Friendship



B) Advice

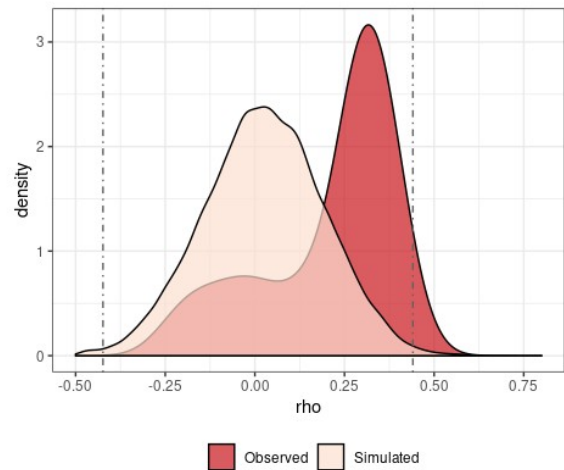


Illustration S3-10 Private company based teams. Observed versus simulated reference distribution of correlation coefficients between BT detections for (A) friendship and (B) advice seeking ties. Dotted vertical lines indicate quantiles (lower = 0.5% and upper = 99.5%) for simulated reference distribution.