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1 Social Network Surveys

This section describes the dyadic social network surveys and weekly aggregated network metrics. You can download the complete datasets and survey instruments below:

[Download CSV Dataset \(.csv\)](#) [Download R Dataset \(.rds\)](#) [Download Stata Dataset \(.dta\)](#)
[Download SPSS Dataset \(.sav\)](#)

Interactive Survey Instruments

Explore the fully digitized survey instruments for each wave below:

- [Wave 1: Summer 2011 Network Survey](#)
- [Wave 2: Spring 2012 Network Survey](#)
- [Wave 3: Summer 2012 Network Survey](#)
- [Wave 4: Fall 2012 Network Survey](#)
- [Wave 5: Winter 2013 Network Survey](#)
- [Wave 6: Summer 2013 Network Survey](#)
- **Weekly Aggregated Metrics:** Located in `Data/weekly_aggregated_metrics/` (Contains open `.csv` files tracking participant indegrees, outdegrees, and text/voice communication inflow and outflow across academic weeks).

The network survey asked students to nominate their peers and answer detailed questions about their relationship with each peer. These nominations represent directed ties between a nominating ego (**sender**) and a nominated alter (**receiver**).

1.1 Programmatic Consolidation

Originally, the network surveys were scattered across 9 separate Stata `.dta` files (representing Wave 1 through Wave 8, including supplementary entry Wave 7.2).

A custom R consolidation script (`Code/consolidate_network_surveys.R`) was engineered to:

1. Parse the wave identifiers from the file names.
2. Programmatically drop sensitive identifying information (such as `altername` and `receiver_string`).
3. Strip wave-specific variable suffixes (e.g., `closeness_1`, `closeness_75`, `closeness_8` are all renamed to `closeness`).
4. Harmonize variable types across waves to handle type conflicts safely.
5. Combine all observations into a single longitudinal panel dataset.

1.2 Nominations by Wave

Below is an interactive count of dyadic ties (nominations) captured in each wave of the longitudinal panel.

```
library(readr)
library(dplyr)

# Load consolidated network surveys
net_df <- read_csv("Data/network_surveys_longitudinal_clean.csv", show_col_types = FALSE)

# Generate count table
net_df |>
  group_by(Wave = wave) |>
  summarise(
    Nominations = n(),
    Unique_Senders = n_distinct(sender),
    Unique_Receiver = n_distinct(receiver)
  ) |>
  arrange(Wave) |>
  knitr::kable(caption = "Tie and Participant Counts by Survey Wave")
```

Table 1.1: Tie and Participant Counts by Survey Wave

Wave	Nominations	Unique_Senders	Unique_Receiver
1	264	17	209

Table 1.1: Tie and Participant Counts by Survey Wave

Wave	Nominations	Unique_Senders	Unique_Recipients
2	2490	173	1967
3	2241	175	1735
4	1524	134	1172
5	1514	140	1248
6	1327	124	1067
7	1207	95	998
8	1251	106	1028

1.3 Core Relational Attributes

For each nominated tie, participants provided detailed ratings across several dimensions:

- **Closeness (`closeness`):** Subjective emotional closeness to the nominee (e.g., on a 1–7 Likert scale).
- **Tie Duration (`duration`):** How long they have known each other in years.
- **Contact Frequency (`freqlast3months`, `freqlastyear`):** Frequency of face-to-face and digital communication.
- **Emotional Profiles:** Specific emotional dimensions of the friendship, such as:
 - `emotionloving`: Feeling loving/affectionate.
 - `emotionexciting`: Feeling excited/happy.
 - `emotionsignificant`: Feeling validated/significant.
- **Interaction Contexts (`socialcontext*`):** Where they typically interact (e.g. `socialcontextDorm`, `socialcontextInclass`, `socialcontextClubteam`, `socialcontextInternet`).
- **Shared Activities (`activitiesact*`, `sameactivities*`):** Activities they do together, such as studying, playing sports, partying, or talking about personal problems.

1.4 Descriptive Relational Visualizations

To help visualize how these social ties and emotional dimensions vary across different relationship categories, the consolidated panel was used to generate several standardized profile figures.

1.4.1 Emotional Closeness by Relationship Type

The figure below illustrates the proportion of emotional closeness levels reported within each relationship category. For instance, parents and significant others dominate the “Especially Close” tier, while acquaintances and coworkers represent more “Distant” or “Less than Close” ties.

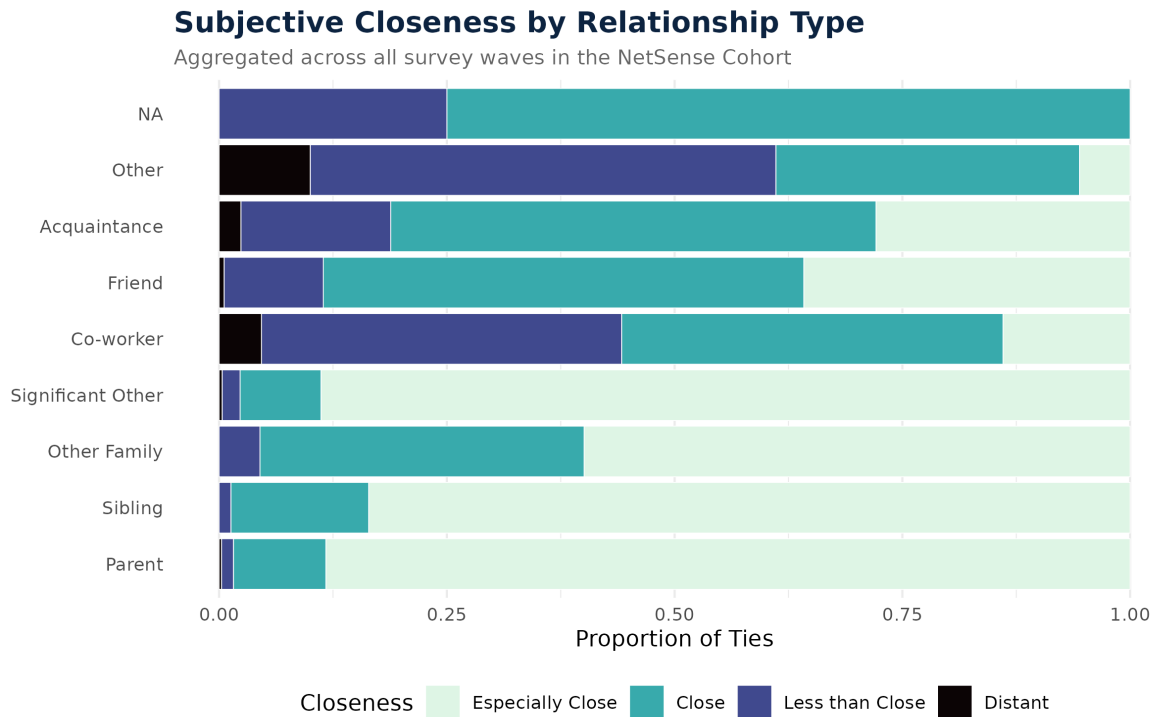


Figure 1.1: Subjective Closeness Profiles by Relationship Type

1.4.2 Relationship Duration

The boxplot below shows the distribution of relationship duration in years across different categories. Naturally, family relationships (parents and siblings) exhibit the longest durations, while friendships and classmate acquaintances reflect shorter, college-coincident spans.

1.4.3 Emotional Profiles of Social Ties

The figure below highlights the proportion of ties that are characterized by specific positive emotions (loving, exciting, or validating) across relationship types. Strong ties (romantic

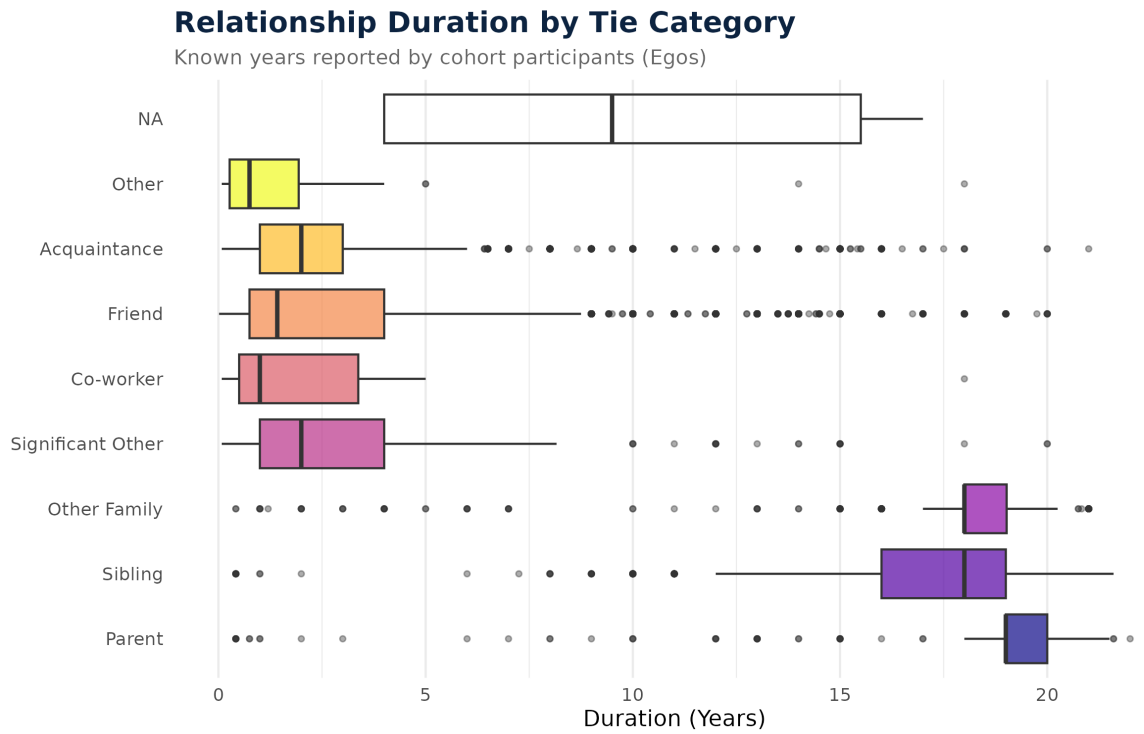


Figure 1.2: Relationship Durations Across Categories

partners and family members) exhibit a rich emotional profile with high rates of all three dimensions.

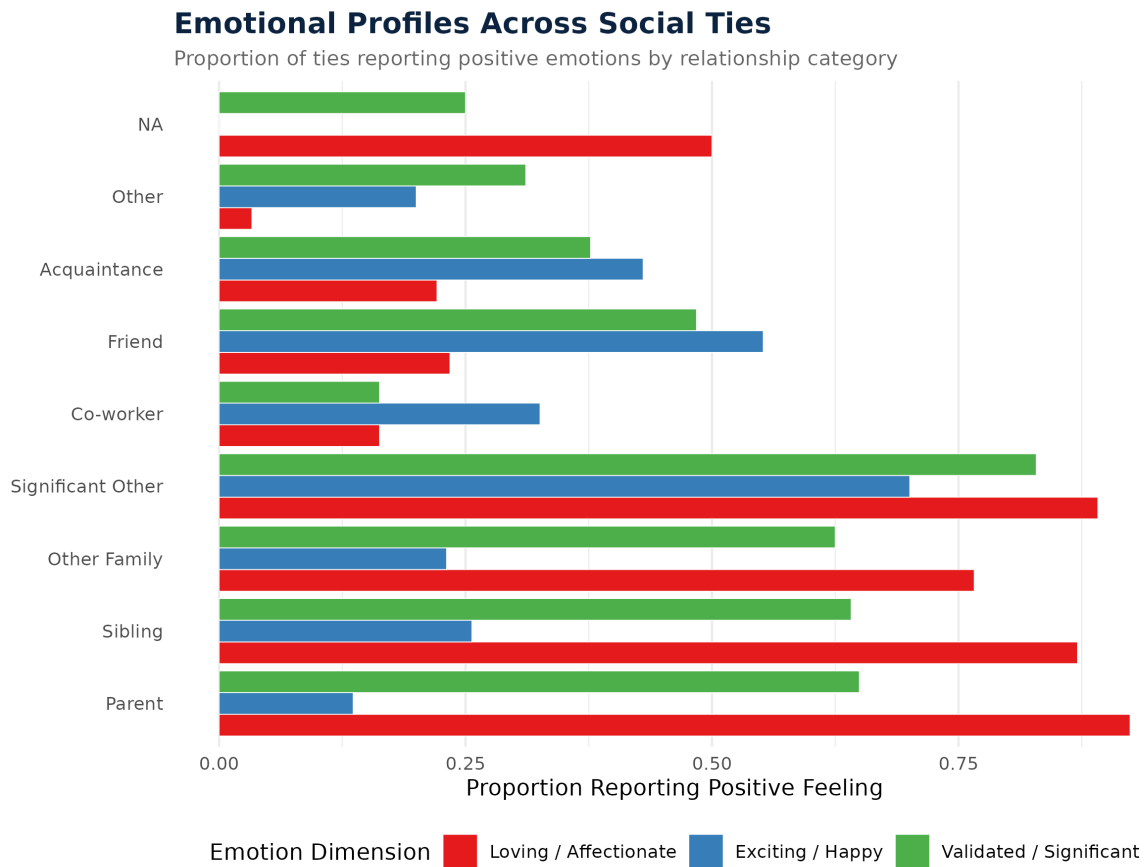


Figure 1.3: Proportions of Positive Emotions Felt in Relationships