

Characterizing Interactions and Relationships between People Supplementary Material

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1 Corpus Details

Table 1 shown detailed corpus counts per episode. Note that the people that interact the most are not uniformly distributed across episodes. Thus, since we use episodes 21–24 for testing, our models cannot rely heavily on the named of the people interacting. Instead, they rely primarily on language usage.

Episode	#Conversations Turns	#Interactions	#Relationships	Number of times people interact
1	544	143	21	Paul-Monica (21), Paul-Joey (5), Phoebe-Paul (2), Paul-Chandler (4), Ross-Paul (3), Paul-Rachel (1), Paul-Frannie (4), Paul-Ross (3), Monica-Joey (9), Monica-Phoebe (4), Monica-Chandler (1), Monica-Ross (10), Monica-Rachel (23), Monica-Frannie (7), Joey-Phoebe (1), Joey-Chandler (7), Joey-Ross (17), Joey-Rachel (3), Chandler-Ross (5), Chandler-Rachel (3), Ross-Rachel (10)
2	358	105	19	Monica-Joey (1), Monica-Phoebe (5), Monica-Chandler (3), Monica-Ross (8), Monica-Rachel (1), Monica-Carol (1), Joey-Ross (2), Phoebe-Rachel (2), Phoebe-Carol (2), Chandler-Ross (1), Ross-Rachel (9), Ross-Marsha (2), Ross-Carol (12), Ross-Barry (3), Ross-Susan (9), Ross-Chandler (1), Rachel-Barry (14), Rachel-Carol (1), Carol-Susan (1), Carol-Phoebe (2)
3	475	98	20	Monica-Joey (1), Monica-Phoebe (3), Monica-Chandler (5), Monica-Ross (2), Monica-Alan (10), Monica-Paula (7), Joey-Phoebe (4), Joey-Chandler (12), Joey-Ross (4), Joey-Rachel (3), Joey-Alan (3), Phoebe-Chandler (3), Phoebe-Ross (3), Phoebe-Lizzie (9), Chandler-Ross (4), Chandler-Rachel (5), Chandler-Alan (5), Chandler Phoebe (3), Ross-Alan (9), Ross Chandler (4), Rachel-Alan (6), Alan-Ross (9)
4	359	64	17	Monica-Phoebe (10), Monica-Ross (1), Monica-Rachel (15), Monica-Pizza-Guy (1), Joey-Chandler (4), Joey-Ross (6), Joey-Rachel (1), Joey-the kid (1), Phoebe-Ross (1), Phoebe-Rachel (3), Chandler-Ross (12), Chandler-Rachel (1), Chandler-Receptionist (1), Ross-Rachel (1), Ross-the kid (2), Rachel-Leslie (2), Rachel-Joanne (3)
5	290	76	18	Monica-Joey (12), Monica-Chandler (1), Monica-Ross (3), Monica-Angela (1), Monica-Woman (1), Monica-Bob (3), Joey-Ross (1), Joey-Angela (7), Joey-Woman (1), Joey-Bob (3), Phoebe-Chandler (2), Chandler-Ross (5), Chandler-Rachel (1), Chandler-Janice (14), Ross-Rachel (13), Ross-Woman (1), Rachel-Woman (6), Angela-Bob (1)
6	353	82	16	Monica-Joey (8), Monica-Chandler (9), Monica-Ross (1), Monica-Rachel (1), Monica-Aurora (3), Joey-Phoebe (4), Joey-Chandler (5), Joey-Ross (3), Joey-Rachel (1), Joey-Director (2), Phoebe-Chandler (1), Chandler-Ross (6), Chandler-Rachel (1), Chandler-Aurora (32), Ross-Aurora (3), Rachel-Aurora (1)
7	291	76	15	Monica-Joey (6), Monica-Phoebe (3), Monica-Ross (2), Monica-Rachel (2), Joey-Phoebe (2), Joey-Ross (12) Joey-Rachel (4), Phoebe-Chandler (1), Phoebe-Rachel (2), Phoebe-Mr-Heckels (2), Phoebe-Paolo (3), Chandler-Jill (6), Ross-Rachel (13) Ross-Paolo (9) Rachel-Paolo (7)
8	371	64	19	Monica-Chandler (1), Monica-Ross (4), Monica-Rachel (2), Monica-Mr. Geller (1), Monica-Mrs.-Geller (14), Joey-Chandler (3), Phoebe-Chandler (2), Phoebe-Ross (2), Phoebe-Rachel (2), Chandler-Ross (2), Chandler-Rachel (6), Chandler-Shelly (7), Chandler-Lowell (6), Ross-Rachel (4), Ross-Nurse (1), Ross-Aunt-Lillian (4), Rachel-Mr.Geller (1), Mrs.-Geller-Nurse (1), Mrs.-Geller-Aunt-Lillian (1),

Episode	#Conversation Turns	#Interactions	#Relationships	Number of times people interact
9	375	75	18	Monica-Joey (4), Monica-Phoebe (3), Monica-Chandler (3), Monica-Ross (7), Monica-Rachel (13), Joey-Phoebe (1), Joey-Chandler (6), Joey-Rachel (1), Joey-Girl (7), Phoebe-Chandler (1), Phoebe-Ross (1), Phoebe-Rachel (1), Chandler-Rachel (4), Ross-Carol (4), Ross-Susan (10), Rachel-Terry (6), Rachel-Guy (3)
10	273	69	19	Monica-Joey (1), Monica-Chandler (2), Monica-Ross (3), Monica-Fun Bobby (1), Joey-Chandler (2), Joey-David (1), Joey-Fun Bobby (1), Joey-Single Mom (1), Phoebe-Chandler (3), Phoebe-Rachel (2), Phoebe-Max (9), Phoebe-David (22), Chandler-Ross (4), Chandler-Rachel (3), Chandler-Max (1), Chandler-David (1), Chandler-Fun Bobby (2), Rachel-David (1), Max-David (9)
11	447	159	24	Monica-Joey (1), Monica-Phoebe (6), Monica-Guy (8), Monica-Coma Guy (6), Joey-Chandler (13), Joe-Ross (20), Joey-Mrs.-Bing (5), Phoebe-Chandler (1), Phoebe-Ross (1), Phoebe-Rachel (1), Phoebe-Guy (2), Phoebe-Mrs.-Bing (2), Phoebe-Coma Guy (9), Chandler-Ross (22), Chandler-Rachel (2), Chandler-Paolo (1), Chandler-Mrs.-Bing (19), Ros-Rachel (1), Ros-Paolo (5), Ros-Mrs.-Bing (21), Rachel-Paolo (2), Rachel-Mrs.-Bing (6), Paolo-Mrs.-Bing (1), Mrs.-Bin-Jay-Leno (4),
12	351	109	23	Monica-Joey (1), Monica-Rachel (1), Monica-Paolo (3), Joey-Chandler (10), Joe-Ross (8), Joe-Rachel (1), Joey-Carol (2), Joey-Susan (1), Joey-Paolo (1), Phoebe-Chandler (2), Phoebe-Ross (3), Phoebe-Rachel (12), Phoebe-Paolo (14), Phoebe-Phoebe's-Assistant (3), Chandler-Ross (4), Chandler-Rachel (4), Chandler-Paolo (1), Ross-Rachel (10), Ross-Carol (6), Ross-Susan (6), Ross-Paolo (4), Rachel-Paolo (10), Carol-Susan (2),
13	328	120	24	Monica-Joey (1), Monica-Phoebe (1), Monica-Ross (5), Monica-Ronni (2), Monica-Roger (2), Joey-Chandler (7), Joe-Rachel (1), Joey-Mr.-Tribbiani (21), Joey-Ronni (5), Joey-Roger (1), Phoebe-Roger (13), Chandler-Ross (1), Chandler-Rachel (7), Chandler-Mr.-Tribbiani (2), Chandler-Ronni (2), Ross-Rachel (2), Ross-Roger (7), Rachel-Mr.-Tribbiani (1), Rachel-Ronni (1), Rachel-Roger (1), Mr.-Tribbiani-Ronni (6), Mr.-Tribbiani-Mrs.-Tribbiani (10), Ronni-Mrs.-Tribbiani (3), Roger-Chandler (3),
14	294	239	21	Monica-Phoebe (3), Monica-Chandler (2), Monica-Ross (3), Monica-Janice (2), Joey-Chandler (12), Joey-Ross (3), Joey-Rachel (1), Joey-Janice (1), Joey-Woman (2), Joey-Lorraine (2), Phoebe-Rachel (1), Chandler-Ross (5), Chandler-Janice (28), Chandler-Woman (1), Chandler-Lorraine (1), Ross-Carol (23), Ross-Janice (2), Ross-Woman (3), Ross-Kristin (7), Rachel-Janice (1), Carol-Kristin (1),
15	430	78	17	Monica-Joey (1), Monica-Phoebe (8), Monica-Chandler (4), Monica-Ross (1), Monica-Rachel (8), Monica-Steve (10), Joey-Chandler (2), Joey-Ross (15), Joey-Celia (5), Phoebe-Chandler (6), Phoebe-Rachel (2), Phoebe-Celia (1), Phoebe-Steve (1), Chandler-Ross (2), Chandler-Rachel (3), Ross-Celia (5), Rachel-Steve (4),

Episode	#Conversation Turns	#Interactions	#Relationships	Number of times people interact
16	470	95	31	Monica-Chandler (6), Monica-Ross (2), Monica-Nina (1), Joey-Phoebe (9), Joey-Chandler (4), Joey-Ursula (7), Phoebe-Chandler (3), Phoebe-Ross (3), Phoebe-Rachel (3), Phoebe-Ursula (4), Phoebe-Fran (3), Phoebe-Jamie (2), Chandler-Ross (1), Chandler-Rachel (1), Chandler-Ursula (3), Chandler-Helen (2), Chandler-Nina (14), Chandler-Rachel (1), Chandler-Mr.-Douglas (3), Ross-Rachel (1), Ross-Carol (2), Ross-Susan (5), Ross-Teacher (1), Rachel-Carol (1), Rachel-Ursula (1), Rachel-Nina (1), Rachel-Mr.-Heckels (1), Carol-Susan (3), Woman-Teacher (1), Nina-Mr.-Douglas (2), Fran-Jamie (2),
17	526	109	17	Monica-Ross (1), Monica-Rachel (28), Monica-Nurse (3), Monica-Dr. Rosen (1), Joey-Phoebe (17), Joey-Chandler (3), Joey-Ursula (7), Phoebe-Chandler (1), Phoebe-Ross (1), Phoebe-Ursula (15), Chandler-Ross (11), Ross-Mr. Geller (5), Ross-Nurse (3), Ross-Ursula (1), Ross-Dr. Rosen (3), Rachel-Nurse (2), Rachel-Dr. Rosen (2),
18	306	42	14	Monica-Joey (1), Monica-Phoebe (2), Monica-Ross (3), Monica-Rachel (4), Monica-Aunt Iris (1), Joey-Phoebe (2), Joey-Ross (3), Phoebe-Chandler (1), Phoebe-Ross (3), Phoebe-Rachel (3), Chandler-Ross (7), Chandler-Rachel (3), Chandler-King George (1), Ross-Rachel (9),
19	183	29	10	Monica-Ross (1), Monica-Rachel (3), Joey Rachel (1), Chandler-Ross (2), Chandler-Rachel (1), Ross-Rachel (9), Ross-Mr-Heckels (4), Rachel-Barry (2), Rachel-Mr.-Heckels (6), Rachel-Chandler (1)
20	467	111	20	Monica-Joey (5), Monica-Chandler (7), Monica-Rachel (4), Monica-Barry (4), Monica-Mindy (1), Joey-Phoebe (1), Joey-Chandler (4), Joe- Mindy (1), Phoebe-Chandler (2), Phoebe-Ross (1), Phoebe-Barry (3), Chandler-Ross (1), Chandler-Mindy (1), Chandler-Danielle (7), Ross-Rachel (4), Ross-Barry (3), Rachel-Barry (17), Rachel-Mindy (30), Barry-Bernice (2), Barry-Mindy (13),
21	403	85	24	Monica-Joey (1), Monica-Phoebe (5), Monica-Ross (1), Monica-Rachel (15), Monica-Woman (1), Monica-Ross (1), Monica-Teacher (2), Monica-Fake-Monica (23), Joey-Phoebe (2), Joey-Chandler (6), Joey-Ross (7), Phoebe-Ross (2), Phoebe-Woman (1), Phoebe-Teacher (1), Chandler-Ross (2), Chandler-Rachel (1), Chandler-Woman (1), Ross-Woman (4), Ross-Fake-Monica (1), Ross-Dr. Baldhara (1), Rachel-Woman (1), Rachel-Teacher (2), Rachel-Fake-Monica (2), Teacher-Fake-Monica (1),
22	468	92	22	Monica Joey (1), Monica-Chandler (4), Monica-Ross (3), Monica-Rachel (3), Monica-Ethan (13), Joey-Phoebe (3), Joey-Chandler (3), Joey-Ross (3), Joey-Rachel (2), Joey-Ethan (1), Phoebe-Chandler (32), Phoebe-Ross (3), Chandler-Ross (5), Chandler-Rachel (4), Chandler-Ethan (1), Ross-Rachel (5), Ross-Andre (1), Ross-Chandler (5), Ross-Cousin-Nathan (1), Rachel-Ethan (4), Ross-Andre (1), Ross-Cousin-Nathan (1),

Episode	#Conversation Turns	#Interactions	#Relationships	Number of times people interact
23	457	104	26	Monica-Joey (1), Monica-Chandler (3), Monica-Ross (4), Monica-Rachel (2), Monica-Carol (1), Monica-Dr.-Franzblau (2), Joey-Chandler (2), Joey-Lydia (10), Phoebe-Ross (5), Phoebe-Rachel (1), Phoebe-Susan (3), Chandler-Rachel (4), Chandler-Carol (1), Chandler-Susan (1), Chandler-Nurse (1), Ross-Rachel (1), Ross-Carol (16), Ross-Susan (19), Ross-Dr.-Franzblau (1), Rachel-Carol (2), Rachel-Dr.-Franzblau (8), Carol-Susan (4), Carol-Dr.-Franzblau (6), Susan-Nurse (1), Susan-Dr.-Franzblau (1), Guy-Lydia (4)
24	325	107	18	Monica Joey(1), Monica-Ross (11), Monica-Rachel (15), Joey-Phoebe (1), Joey-Chandler (10), Joey-Ross (2), Joey-Rachel (2), Joey-Melanie (10), Phoebe-Chandler (1), Phoebe-Ross (1), Phoebe-Rachel (2), Chandler-Ross (1), Chandler-Rachel (3), Ross-Rachel (30), Ross-Carl (3), Rachel-Flight-Attendant (4), Rachel-Carl (6), Flight-Attendant-Man (4),

Table 1: Corpus counts per episode. We show the number of conversation turns, the total number of interactions, the number of unique pairs of people who have a relationships (i.e., who interact at least once), and the number of times each pair of people interact.