# Text and topology in in human interaction networks: differences among Erdös sectors and correlation of metrics (Supporting Information document)

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**CONTENTS**

This Supporting Information document exposes extensive measurements on interaction networks erived from email lists, Twitter, Participabr and IRC.

## SI. MEASURES

### A. General characteristics of activity distribution among participants

#### 1. Snapshots of 1000 messages

|           | g.     | p.     | i.     | h.     |
|-----------|--------|--------|--------|--------|
| $N$       | 116    | 62     | 46     | 8      |
| $N_\%$    | 100.00 | 53.45  | 39.66  | 6.90   |
| $M$       | 999.00 | 120.00 | 394.00 | 485.00 |
| $M_\%$    | 100.00 | 12.01  | 39.44  | 48.55  |
| $\Gamma$  | 205.00 | 58.00  | 96.00  | 51.00  |
| $\Gamma_\%$ | 100.00 | 28.29 | 46.83  | 24.88  |
| $\frac{\Gamma}{M}\%$ | 20.52 | 48.33 | 24.37 | 10.52 |
| $\mu(\gamma)$ | 2.60 | 2.24 | 2.76 | 2.73 |
| $\sigma(\gamma)$ | 0.49 | 0.43 | 0.43 | 0.45 |

TABLE S1. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.34 years (from 2003-04-14T06:38:44 to 2003-08-16T15:26:03). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respeco to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 0

|           | g.      | p.      | i.      | h.      |
|-----------|---------|---------|---------|---------|
| $N$       | 163     | 87      | 53      | 23      |
| $N_\%$    | 100.00  | 53.37   | 32.52   | 14.11   |
| $M$       | 1000.00 | 144.00  | 327.00  | 519.00  |
| $M_\%$    | 100.00  | 14.55   | 33.03   | 52.42   |
| $\Gamma$  | 274.00  | 67.00   | 99.00   | 108.00  |
| $\Gamma_\%$ | 100.00 | 24.45  | 36.13   | 39.42   |
| $\frac{\Gamma}{M}\%$ | 27.40 | 46.53 | 30.28 | 20.81 |
| $\mu(\gamma)$ | 2.65 | 2.46 | 2.71 | 2.70 |
| $\sigma(\gamma)$ | 0.48 | 0.50 | 0.46 | 0.46 |

TABLE S2. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.16 years (from 2002-03-15T14:54:31 to 2002-05-13T09:52:28). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respeco to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 2

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|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 89 | 47 | 35 | 7 |
| $N_\%$ | 100.00 | 52.81 | 39.33 | 7.87 |
| $M$ | 1000.00 | 115.00 | 348.00 | 537.00 |
| $M_\%$ | 100.00 | 11.50 | 34.80 | 53.70 |
| $\Gamma$ | 254.00 | 87.00 | 104.00 | 63.00 |
| $\Gamma_\%$ | 100.00 | 34.25 | 40.94 | 24.80 |
| $\frac{\Gamma}{M}\%$ | 25.40 | 75.65 | 29.89 | 11.73 |
| $\mu(\gamma)$ | 2.69 | 2.70 | 2.80 | 2.49 |
| $\sigma(\gamma)$ | 0.46 | 0.46 | 0.40 | 0.50 |

TABLE S3. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.32 years (from 2002-10-13T15:53:01 to 2003-02-08T17:56:24). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 3

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 183 | 88 | 77 | 18 |
| $N_\%$ | 100.00 | 48.09 | 42.08 | 9.84 |
| $M$ | 1000.00 | 121.00 | 467.00 | 410.00 |
| $M_\%$ | 100.00 | 12.12 | 46.79 | 41.08 |
| $\Gamma$ | 221.00 | 45.00 | 105.00 | 71.00 |
| $\Gamma_\%$ | 100.00 | 20.36 | 47.51 | 32.13 |
| $\frac{\Gamma}{M}\%$ | 22.10 | 37.19 | 22.48 | 17.32 |
| $\mu(\gamma)$ | 2.71 | 2.47 | 2.76 | 2.77 |
| $\sigma(\gamma)$ | 0.46 | 0.50 | 0.43 | 0.42 |

TABLE S5. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.15 years (from 2005-12-20T23:20:59 to 2006-02-12T17:52:27). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 519 | 463 | 44 | 12 |
| $N_\%$ | 100.00 | 89.21 | 8.48 | 2.31 |
| $M$ | 855.00 | 496.00 | 90.00 | 262.00 |
| $M_\%$ | 100.00 | 58.49 | 10.61 | 30.90 |
| $\Gamma$ | 633.00 | 492.00 | 58.00 | 83.00 |
| $\Gamma_\%$ | 100.00 | 77.73 | 9.16 | 13.11 |
| $\frac{\Gamma}{M}\%$ | 74.04 | 99.19 | 64.44 | 31.68 |
| $\mu(\gamma)$ | 2.14 | 2.00 | 2.74 | 2.54 |
| $\sigma(\gamma)$ | 0.35 | 0.00 | 0.44 | 0.50 |

TABLE S4. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 6.75 years (from 2002-04-14T09:08:39 to 2009-01-15T07:35:02). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 6

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 160 | 99 | 52 | 9 |
| $N_\%$ | 100.00 | 61.88 | 32.50 | 5.62 |
| $M$ | 990.00 | 128.00 | 315.00 | 544.00 |
| $M_\%$ | 100.00 | 12.97 | 31.91 | 55.12 |
| $\Gamma$ | 201.00 | 74.00 | 59.00 | 68.00 |
| $\Gamma_\%$ | 100.00 | 36.82 | 29.35 | 33.83 |
| $\frac{\Gamma}{M}\%$ | 20.30 | 57.81 | 18.73 | 12.50 |
| $\mu(\gamma)$ | 2.64 | 2.28 | 2.88 | 2.82 |
| $\sigma(\gamma)$ | 0.48 | 0.45 | 0.32 | 0.38 |

TABLE S6. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.87 years (from 2007-03-22T07:24:54 to 2008-02-01T11:32:39). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 8

|         | g.     | p.    | i.     | h.     |
|---------|--------|-------|--------|--------|
| $N$     | 349    | 266   | 76     | 7      |
| $N_\%$  | 100.00 | 76.22 | 21.78  | 2.01   |
| $M$     | 998.00 | 373.00| 340.00 | 284.00 |
| $M_\%$  | 100.00 | 37.41 | 34.10  | 28.49  |
| $\Gamma$ | 549.00 | 337.00| 207.00 | 5.00   |
| $\Gamma_\%$ | 100.00 | 61.38 | 37.70 | 0.91 |
| $\frac{\Gamma}{M}\%$ | 55.01 | 90.35 | 60.88 | 1.76 |
| $\mu(\gamma)$ | 2.44 | 2.41 | 2.50 | 2.60 |
| $\sigma(\gamma)$ | 0.50 | 0.49 | 0.50 | 0.49 |

TABLE S7. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.28 years (from 2003-05-23T09:59:04 to 2003-09-04T06:05:30). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 9

|         | g.      | p.    | i.     | h.     |
|---------|---------|-------|--------|--------|
| $N$     | 76      | 48    | 22     | 6      |
| $N_\%$  | 100.00  | 63.16 | 28.95  | 7.89   |
| $M$     | 1000.00 | 99.00 | 337.00 | 564.00 |
| $M_\%$  | 100.00  | 9.90  | 33.70  | 56.40  |
| $\Gamma$ | 278.00 | 60.00 | 177.00 | 41.00  |
| $\Gamma_\%$ | 100.00 | 21.58 | 63.67 | 14.75 |
| $\frac{\Gamma}{M}\%$ | 27.80 | 60.61 | 52.52 | 7.27 |
| $\mu(\gamma)$ | 2.67 | 2.45 | 2.75 | 2.63 |
| $\sigma(\gamma)$ | 0.47 | 0.50 | 0.43 | 0.48 |

TABLE S9. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.25 years (from 2010-04-06T08:44:52 to 2010-07-05T17:37:22). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 11

|         | g.      | p.     | i.     | h.     |
|---------|---------|--------|--------|--------|
| $N$     | 216     | 123    | 83     | 10     |
| $N_\%$  | 100.00  | 56.94  | 38.43  | 4.63   |
| $M$     | 1000.00 | 171.00 | 484.00 | 345.00 |
| $M_\%$  | 100.00  | 17.10  | 48.40  | 34.50  |
| $\Gamma$ | 278.00 | 78.00  | 113.00 | 87.00  |
| $\Gamma_\%$ | 100.00 | 28.06 | 40.65 | 31.29 |
| $\frac{\Gamma}{M}\%$ | 27.80 | 45.61 | 23.35 | 25.22 |
| $\mu(\gamma)$ | 2.52 | 2.50 | 2.51 | 2.54 |
| $\sigma(\gamma)$ | 0.50 | 0.50 | 0.50 | 0.50 |

TABLE S8. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 3.15 years (from 2008-01-01T01:24:27 to 2011-02-26T10:06:59). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 10

|         | g.     | p.     | i.     | h.     |
|---------|--------|--------|--------|--------|
| $N$     | 255    | 148    | 99     | 8      |
| $N_\%$  | 100.00 | 58.04  | 38.82  | 3.14   |
| $M$     | 996.00 | 246.00 | 481.00 | 268.00 |
| $M_\%$  | 100.00 | 24.72  | 48.34  | 26.93  |
| $\Gamma$ | 528.00 | 214.00 | 203.00 | 111.00 |
| $\Gamma_\%$ | 100.00 | 40.53 | 38.45 | 21.02 |
| $\frac{\Gamma}{M}\%$ | 53.01 | 86.99 | 42.20 | 41.42 |
| $\mu(\gamma)$ | 2.33 | 2.26 | 2.50 | 2.18 |
| $\sigma(\gamma)$ | 0.47 | 0.44 | 0.50 | 0.38 |

TABLE S10. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 6.66 years (from 2002-12-20T18:09:19 to 2009-08-19T13:42:26). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 12

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 410 | 376 | 23 | 11 |
| $N_\%$ | 100.00 | 91.71 | 5.61 | 2.68 |
| $M$ | 989.00 | 402.00 | 68.00 | 490.00 |
| $M_\%$ | 100.00 | 41.88 | 7.08 | 51.04 |
| $\Gamma$ | 534.00 | 387.00 | 22.00 | 125.00 |
| $\Gamma_\%$ | 100.00 | 72.47 | 4.12 | 23.41 |
| $\frac{\Gamma}{M}\%$ | 53.99 | 96.27 | 32.35 | 25.51 |
| $\mu(\gamma)$ | 2.19 | 2.00 | 2.95 | 2.64 |
| $\sigma(\gamma)$ | 0.39 | 0.00 | 0.21 | 0.48 |

TABLE S11.  Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 1.28 years (from 2009-02-04T19:58:09 to 2010-05-20T16:40:06). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 252 | 120 | 117 | 15 |
| $N_\%$ | 100.00 | 47.62 | 46.43 | 5.95 |
| $M$ | 979.00 | 142.00 | 381.00 | 447.00 |
| $M_\%$ | 100.00 | 14.64 | 39.28 | 46.08 |
| $\Gamma$ | 353.00 | 125.00 | 148.00 | 80.00 |
| $\Gamma_\%$ | 100.00 | 35.41 | 41.93 | 22.66 |
| $\frac{\Gamma}{M}\%$ | 36.06 | 88.03 | 38.85 | 17.90 |
| $\mu(\gamma)$ | 2.30 | 2.02 | 2.50 | 2.38 |
| $\sigma(\gamma)$ | 0.46 | 0.15 | 0.50 | 0.48 |

TABLE S13.  Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.64 years (from 2002-03-25T16:00:40 to 2002-11-14T13:43:36). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 332 | 134 | 189 | 9 |
| $N_\%$ | 100.00 | 40.36 | 56.93 | 2.71 |
| $M$ | 995.00 | 190.00 | 639.00 | 166.00 |
| $M_\%$ | 100.00 | 19.10 | 64.22 | 16.68 |
| $\Gamma$ | 603.00 | 187.00 | 397.00 | 19.00 |
| $\Gamma_\%$ | 100.00 | 31.01 | 65.84 | 3.15 |
| $\frac{\Gamma}{M}\%$ | 60.60 | 98.42 | 62.13 | 11.45 |
| $\mu(\gamma)$ | 2.31 | 2.01 | 2.44 | 2.47 |
| $\sigma(\gamma)$ | 0.46 | 0.10 | 0.50 | 0.50 |

TABLE S12.  Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.67 years (from 2002-06-10T14:56:02 to 2003-02-12T08:39:55). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 125 | 63 | 43 | 19 |
| $N_\%$ | 100.00 | 50.40 | 34.40 | 15.20 |
| $M$ | 1000.00 | 109.00 | 318.00 | 573.00 |
| $M_\%$ | 100.00 | 10.90 | 31.80 | 57.30 |
| $\Gamma$ | 150.00 | 42.00 | 53.00 | 55.00 |
| $\Gamma_\%$ | 100.00 | 28.00 | 35.33 | 36.67 |
| $\frac{\Gamma}{M}\%$ | 15.00 | 38.53 | 16.67 | 9.60 |
| $\mu(\gamma)$ | 2.80 | 2.76 | 2.81 | 2.82 |
| $\sigma(\gamma)$ | 0.40 | 0.43 | 0.39 | 0.39 |

TABLE S14.  Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.16 years (from 2012-01-16T07:36:37 to 2012-03-16T14:32:02). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 17

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 111 | 77 | 27 | 7 |
| $N_\%$ | 100.00 | 69.37 | 24.32 | 6.31 |
| $M$ | 996.00 | 91.00 | 259.00 | 646.00 |
| $M_\%$ | 100.00 | 9.14 | 26.00 | 64.86 |
| $\Gamma$ | 294.00 | 62.00 | 49.00 | 183.00 |
| $\Gamma_\%$ | 100.00 | 21.09 | 16.67 | 62.24 |
| $\frac{\Gamma}{M}\%$ | 29.52 | 68.13 | 18.92 | 28.33 |
| $\mu(\gamma)$ | 2.55 | 2.29 | 2.73 | 2.59 |
| $\sigma(\gamma)$ | 0.50 | 0.45 | 0.44 | 0.49 |

TABLE S15. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.76 years (from 2002-12-10T17:07:26 to 2003-09-13T16:27:43). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 18

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 127 | 69 | 44 | 14 |
| $N_\%$ | 100.00 | 54.33 | 34.65 | 11.02 |
| $M$ | 999.00 | 119.00 | 299.00 | 581.00 |
| $M_\%$ | 100.00 | 11.91 | 29.93 | 58.16 |
| $\Gamma$ | 319.00 | 70.00 | 106.00 | 143.00 |
| $\Gamma_\%$ | 100.00 | 21.94 | 33.23 | 44.83 |
| $\frac{\Gamma}{M}\%$ | 31.93 | 58.82 | 35.45 | 24.61 |
| $\mu(\gamma)$ | 2.51 | 2.40 | 2.60 | 2.49 |
| $\sigma(\gamma)$ | 0.50 | 0.49 | 0.49 | 0.50 |

TABLE S16. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 1.10 years (from 2004-05-12T23:56:58 to 2005-06-17T10:35:50). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 19

## 2. Snapshots of 2000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 149 | 81 | 58 | 10 |
| $N_\%$ | 100.00 | 54.36 | 38.93 | 6.71 |
| $M$ | 2000.00 | 186.00 | 822.00 | 992.00 |
| $M_\%$ | 100.00 | 9.30 | 41.10 | 49.60 |
| $\Gamma$ | 347.00 | 70.00 | 212.00 | 65.00 |
| $\Gamma_\%$ | 100.00 | 20.17 | 61.10 | 18.73 |
| $\frac{\Gamma}{M}\%$ | 17.35 | 37.63 | 25.79 | 6.55 |
| $\mu(\gamma)$ | 2.76 | 2.56 | 2.80 | 2.88 |
| $\sigma(\gamma)$ | 0.42 | 0.50 | 0.40 | 0.33 |

TABLE S17. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.30 years (from 2003-08-15T10:13:24 to 2003-12-04T16:56:33). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 308 | 169 | 118 | 21 |
| $N_\%$ | 100.00 | 54.87 | 38.31 | 6.82 |
| $M$ | 1999.00 | 277.00 | 956.00 | 745.00 |
| $M_\%$ | 100.00 | 14.00 | 48.33 | 37.66 |
| $\Gamma$ | 590.00 | 126.00 | 311.00 | 153.00 |
| $\Gamma_\%$ | 100.00 | 21.36 | 52.71 | 25.93 |
| $\frac{\Gamma}{M}\%$ | 29.51 | 45.49 | 32.53 | 20.54 |
| $\mu(\gamma)$ | 2.63 | 2.48 | 2.68 | 2.67 |
| $\sigma(\gamma)$ | 0.48 | 0.50 | 0.47 | 0.47 |

TABLE S18. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 0.30 years (from 2002-05-13T10:09:50 to 2002-08-30T12:40:52). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 2

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $N$ | 180 | 122 | 52 | 6 |
| $N_\%$ | 100.00 | 67.78 | 28.89 | 3.33 |
| $M$ | 2000.00 | 274.00 | 636.00 | 1090.00 |
| $M_\%$ | 100.00 | 13.70 | 31.80 | 54.50 |
| $\Gamma$ | 446.00 | 143.00 | 157.00 | 146.00 |
| $\Gamma_\%$ | 100.00 | 32.06 | 35.20 | 32.74 |
| $\frac{\Gamma}{M}\%$ | 22.30 | 52.19 | 24.69 | 13.39 |
| $\mu(\gamma)$ | 2.73 | 2.77 | 2.84 | 2.58 |
| $\sigma(\gamma)$ | 0.44 | 0.42 | 0.37 | 0.49 |

TABLE S19. Distribution of participants, messages and threads among each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs) in a total time period of 1.03 years (from 2003-02-06T18:25:24 to 2004-02-18T17:36:33). $N$ is the number of participants, $M$ is the number of messages, $\Gamma$ is the number of threads, and $\gamma$ is the number of messages in a thread. The % denotes the usual 'per cent' with respecto to the total quantity (100% for **g.**) while $\mu$ and $\sigma$ denote mean and standard deviation. TAG: 3

## B. Characters

### 1. Snapshots of 1000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 553435 | 68986 | 179933 | 304516 |
| $chars_\%$ | 100.00 | 12.47 | 32.51 | 55.02 |
| $\frac{spaces}{chars}$ | 15.60 | 15.25 | 15.70 | 15.61 |
| $\frac{punct}{chars-spaces}$ | 6.74 | 6.51 | 6.33 | 7.03 |
| $\frac{digits}{chars-spaces}$ | 1.48 | 1.89 | 1.56 | 1.34 |
| $\frac{letters}{chars-spaces}$ | 89.92 | 89.66 | 90.23 | 89.80 |
| $\frac{vogals}{letters}$ | 36.15 | 35.87 | 36.01 | 36.30 |
| $\frac{uppercase}{letters}$ | 5.34 | 5.92 | 5.70 | 4.99 |

TABLE S20. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 516456 | 86876 | 164545 | 265035 |
| $chars_\%$ | 100.00 | 16.82 | 31.86 | 51.32 |
| $\frac{spaces}{chars}$ | 13.36 | 12.80 | 13.32 | 13.57 |
| $\frac{punct}{chars-spaces}$ | 9.10 | 9.87 | 8.45 | 9.25 |
| $\frac{digits}{chars-spaces}$ | 2.37 | 3.59 | 1.54 | 2.48 |
| $\frac{letters}{chars-spaces}$ | 86.53 | 83.66 | 88.22 | 86.43 |
| $\frac{vogals}{letters}$ | 35.08 | 33.79 | 35.55 | 35.19 |
| $\frac{uppercase}{letters}$ | 7.12 | 9.43 | 6.63 | 6.68 |

TABLE S21. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 779504 | 92973 | 392241 | 294290 |
| *chars%* | 100.00 | 11.93 | 50.32 | 37.75 |
| $\frac{spaces}{chars}$ | 16.04 | 14.72 | 16.51 | 15.84 |
| $\frac{punct}{chars-spaces}$ | 7.55 | 7.92 | 7.72 | 7.20 |
| $\frac{digits}{chars-spaces}$ | 2.72 | 2.85 | 3.54 | 1.61 |
| $\frac{letters}{chars-spaces}$ | 87.71 | 87.17 | 86.76 | 89.14 |
| $\frac{vogals}{letters}$ | 35.97 | 35.79 | 35.75 | 36.31 |
| $\frac{uppercase}{letters}$ | 7.81 | 8.31 | 8.28 | 7.06 |

TABLE S22. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 725760 | 264396 | 274737 | 186627 |
| *chars%* | 100.00 | 36.43 | 37.86 | 25.71 |
| $\frac{spaces}{chars}$ | 17.14 | 17.36 | 16.94 | 17.13 |
| $\frac{punct}{chars-spaces}$ | 6.51 | 7.19 | 6.71 | 5.27 |
| $\frac{digits}{chars-spaces}$ | 4.11 | 5.77 | 4.36 | 1.38 |
| $\frac{letters}{chars-spaces}$ | 87.32 | 84.94 | 86.95 | 91.23 |
| $\frac{vogals}{letters}$ | 35.68 | 35.42 | 35.61 | 36.14 |
| $\frac{uppercase}{letters}$ | 6.38 | 7.30 | 6.56 | 4.94 |

TABLE S26. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 961793 | 697786 | 100398 | 163609 |
| *chars%* | 100.00 | 72.55 | 10.44 | 17.01 |
| $\frac{spaces}{chars}$ | 15.27 | 14.88 | 14.78 | 17.20 |
| $\frac{punct}{chars-spaces}$ | 11.18 | 11.62 | 13.59 | 7.69 |
| $\frac{digits}{chars-spaces}$ | 4.36 | 4.55 | 3.10 | 4.33 |
| $\frac{letters}{chars-spaces}$ | 81.88 | 81.11 | 81.13 | 85.74 |
| $\frac{vogals}{letters}$ | 32.97 | 32.45 | 32.60 | 35.35 |
| $\frac{uppercase}{letters}$ | 8.51 | 8.84 | 8.79 | 6.97 |

TABLE S23. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 623572 | 105938 | 358477 | 159157 |
| *chars%* | 100.00 | 16.99 | 57.49 | 25.52 |
| $\frac{spaces}{chars}$ | 15.22 | 14.32 | 15.60 | 14.94 |
| $\frac{punct}{chars-spaces}$ | 5.91 | 6.26 | 5.70 | 6.13 |
| $\frac{digits}{chars-spaces}$ | 1.57 | 1.61 | 1.67 | 1.30 |
| $\frac{letters}{chars-spaces}$ | 90.61 | 90.12 | 90.76 | 90.60 |
| $\frac{vogals}{letters}$ | 37.71 | 37.52 | 37.72 | 37.82 |
| $\frac{uppercase}{letters}$ | 4.06 | 4.23 | 3.90 | 4.31 |

TABLE S27. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 439032 | 65184 | 206313 | 167535 |
| *chars%* | 100.00 | 14.85 | 46.99 | 38.16 |
| $\frac{spaces}{chars}$ | 14.97 | 14.05 | 15.18 | 15.07 |
| $\frac{punct}{chars-spaces}$ | 8.16 | 8.30 | 8.30 | 7.94 |
| $\frac{digits}{chars-spaces}$ | 4.50 | 6.32 | 4.77 | 3.44 |
| $\frac{letters}{chars-spaces}$ | 85.37 | 83.42 | 84.94 | 86.67 |
| $\frac{vogals}{letters}$ | 31.41 | 30.47 | 30.72 | 32.60 |
| $\frac{uppercase}{letters}$ | 9.72 | 9.72 | 9.80 | 9.62 |

TABLE S24. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 1541843 | 94451 | 852580 | 594812 |
| *chars%* | 100.00 | 6.13 | 55.30 | 38.58 |
| $\frac{spaces}{chars}$ | 16.56 | 16.49 | 16.91 | 16.07 |
| $\frac{punct}{chars-spaces}$ | 4.05 | 4.68 | 4.49 | 3.31 |
| $\frac{digits}{chars-spaces}$ | 1.09 | 1.47 | 1.34 | 0.69 |
| $\frac{letters}{chars-spaces}$ | 92.63 | 91.54 | 91.76 | 94.03 |
| $\frac{vogals}{letters}$ | 37.20 | 36.91 | 37.05 | 37.45 |
| $\frac{uppercase}{letters}$ | 4.70 | 4.97 | 5.45 | 3.62 |

TABLE S28. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 572130 | 142137 | 143038 | 286955 |
| *chars%* | 100.00 | 24.84 | 25.00 | 50.16 |
| $\frac{spaces}{chars}$ | 16.17 | 13.98 | 16.93 | 16.88 |
| $\frac{punct}{chars-spaces}$ | 8.76 | 11.92 | 6.50 | 8.26 |
| $\frac{digits}{chars-spaces}$ | 3.68 | 4.13 | 5.57 | 2.51 |
| $\frac{letters}{chars-spaces}$ | 85.69 | 82.32 | 85.97 | 87.27 |
| $\frac{vogals}{letters}$ | 34.45 | 30.60 | 35.36 | 35.86 |
| $\frac{uppercase}{letters}$ | 8.02 | 18.81 | 4.19 | 4.69 |

TABLE S25. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

| | g. | p. | i. | h. |
|---|---|---|---|---|
| *chars* | 1087364 | 224263 | 566893 | 296208 |
| *chars%* | 100.00 | 20.62 | 52.13 | 27.24 |
| $\frac{spaces}{chars}$ | 17.86 | 14.03 | 19.22 | 18.16 |
| $\frac{punct}{chars-spaces}$ | 7.83 | 8.12 | 8.17 | 6.94 |
| $\frac{digits}{chars-spaces}$ | 2.49 | 2.63 | 2.12 | 3.07 |
| $\frac{letters}{chars-spaces}$ | 87.42 | 86.98 | 87.42 | 87.78 |
| $\frac{vogals}{letters}$ | 35.97 | 35.97 | 36.15 | 35.64 |
| $\frac{uppercase}{letters}$ | 6.66 | 6.70 | 6.35 | 7.20 |

TABLE S29. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 1130382 | 713909 | 47644 | 368829 |
| $chars_\%$ | 100.00 | 63.16 | 4.21 | 32.63 |
| $\frac{spaces}{chars}$ | 20.70 | 22.99 | 15.37 | 16.97 |
| $\frac{punct}{chars-spaces}$ | 7.29 | 7.37 | 12.35 | 6.47 |
| $\frac{digits}{chars-spaces}$ | 5.79 | 7.90 | 4.97 | 2.10 |
| $\frac{letters}{chars-spaces}$ | 82.99 | 79.59 | 80.56 | 89.41 |
| $\frac{vogals}{letters}$ | 32.09 | 29.59 | 34.41 | 35.82 |
| $\frac{uppercase}{letters}$ | 7.95 | 10.35 | 5.18 | 4.44 |

TABLE S30. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 922859 | 99269 | 226361 | 597229 |
| $chars_\%$ | 100.00 | 10.76 | 24.53 | 64.72 |
| $\frac{spaces}{chars}$ | 17.04 | 13.67 | 18.51 | 17.04 |
| $\frac{punct}{chars-spaces}$ | 6.76 | 13.59 | 6.65 | 5.62 |
| $\frac{digits}{chars-spaces}$ | 2.36 | 3.79 | 3.96 | 1.52 |
| $\frac{letters}{chars-spaces}$ | 88.56 | 78.20 | 87.15 | 90.88 |
| $\frac{vogals}{letters}$ | 36.04 | 33.40 | 35.91 | 36.49 |
| $\frac{uppercase}{letters}$ | 6.13 | 8.48 | 6.69 | 5.58 |

TABLE S34. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 900140 | 250570 | 548772 | 100798 |
| $chars_\%$ | 100.00 | 27.84 | 60.97 | 11.20 |
| $\frac{spaces}{chars}$ | 18.22 | 16.45 | 18.60 | 20.59 |
| $\frac{punct}{chars-spaces}$ | 6.12 | 6.38 | 6.15 | 5.22 |
| $\frac{digits}{chars-spaces}$ | 4.17 | 3.34 | 4.60 | 3.92 |
| $\frac{letters}{chars-spaces}$ | 87.46 | 87.84 | 87.02 | 88.89 |
| $\frac{vogals}{letters}$ | 35.08 | 33.43 | 35.58 | 36.65 |
| $\frac{uppercase}{letters}$ | 8.68 | 13.67 | 7.01 | 4.94 |

TABLE S31. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 971223 | 302606 | 349078 | 319539 |
| $chars_\%$ | 100.00 | 31.16 | 35.94 | 32.90 |
| $\frac{spaces}{chars}$ | 15.04 | 12.84 | 16.99 | 15.00 |
| $\frac{punct}{chars-spaces}$ | 11.70 | 15.58 | 10.68 | 9.03 |
| $\frac{digits}{chars-spaces}$ | 3.48 | 5.50 | 2.56 | 2.51 |
| $\frac{letters}{chars-spaces}$ | 82.66 | 76.87 | 84.64 | 86.18 |
| $\frac{vogals}{letters}$ | 33.79 | 31.85 | 34.02 | 35.23 |
| $\frac{uppercase}{letters}$ | 8.00 | 11.04 | 6.67 | 6.77 |

TABLE S32. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 514624 | 89224 | 112807 | 312593 |
| $chars_\%$ | 100.00 | 17.34 | 21.92 | 60.74 |
| $\frac{spaces}{chars}$ | 16.58 | 14.99 | 16.15 | 17.19 |
| $\frac{punct}{chars-spaces}$ | 6.41 | 12.34 | 6.81 | 4.53 |
| $\frac{digits}{chars-spaces}$ | 1.16 | 2.14 | 1.30 | 0.82 |
| $\frac{letters}{chars-spaces}$ | 90.45 | 83.38 | 89.92 | 92.71 |
| $\frac{vogals}{letters}$ | 35.55 | 32.93 | 35.03 | 36.43 |
| $\frac{uppercase}{letters}$ | 5.95 | 8.15 | 6.18 | 5.28 |

TABLE S35. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 630149 | 70362 | 246202 | 313585 |
| $chars_\%$ | 100.00 | 11.17 | 39.07 | 49.76 |
| $\frac{spaces}{chars}$ | 14.32 | 13.65 | 14.12 | 14.62 |
| $\frac{punct}{chars-spaces}$ | 9.88 | 9.18 | 9.71 | 10.18 |
| $\frac{digits}{chars-spaces}$ | 5.91 | 5.66 | 6.89 | 5.20 |
| $\frac{letters}{chars-spaces}$ | 82.33 | 83.46 | 81.58 | 82.68 |
| $\frac{vogals}{letters}$ | 34.56 | 34.58 | 34.13 | 34.89 |
| $\frac{uppercase}{letters}$ | 7.86 | 8.33 | 8.36 | 7.37 |

TABLE S33. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

## 2. Snapshots of 2000 messages

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 1146214 | 114115 | 497484 | 534615 |
| $chars_\%$ | 100.00 | 9.96 | 43.40 | 46.64 |
| $\frac{spaces}{chars}$ | 16.04 | 15.37 | 16.71 | 15.56 |
| $\frac{punct}{chars-spaces}$ | 6.90 | 8.24 | 7.04 | 6.47 |
| $\frac{digits}{chars-spaces}$ | 1.07 | 1.20 | 1.06 | 1.06 |
| $\frac{letters}{chars-spaces}$ | 90.17 | 88.42 | 90.02 | 90.67 |
| $\frac{vogals}{letters}$ | 36.50 | 35.91 | 36.49 | 36.64 |
| $\frac{uppercase}{letters}$ | 4.90 | 6.89 | 4.86 | 4.52 |

TABLE S36. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 1088548 | 144189 | 547262 | 397097 |
| $chars_\%$ | 100.00 | 13.25 | 50.27 | 36.48 |
| $\frac{spaces}{chars}$ | 13.70 | 13.54 | 13.66 | 13.80 |
| $\frac{punct}{chars-spaces}$ | 9.26 | 9.61 | 8.86 | 9.68 |
| $\frac{digits}{chars-spaces}$ | 2.96 | 2.11 | 2.92 | 3.33 |
| $\frac{letters}{chars-spaces}$ | 85.86 | 86.24 | 86.26 | 85.16 |
| $\frac{vogals}{letters}$ | 35.45 | 35.14 | 35.53 | 35.45 |
| $\frac{uppercase}{letters}$ | 7.09 | 8.03 | 6.94 | 6.95 |

TABLE S37. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $chars$ | 1315736 | 212215 | 488036 | 615485 |
| $chars_\%$ | 100.00 | 16.13 | 37.09 | 46.78 |
| $\frac{spaces}{chars}$ | 15.04 | 15.59 | 14.95 | 14.93 |
| $\frac{punct}{chars-spaces}$ | 7.52 | 7.33 | 7.71 | 7.43 |
| $\frac{digits}{chars-spaces}$ | 2.62 | 2.61 | 3.39 | 2.00 |
| $\frac{letters}{chars-spaces}$ | 87.60 | 88.09 | 86.97 | 87.94 |
| $\frac{vogals}{letters}$ | 35.92 | 36.12 | 35.79 | 35.95 |
| $\frac{uppercase}{letters}$ | 8.11 | 7.91 | 8.27 | 8.05 |

TABLE S38. Characters in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

## C. Tokens and words

## 1. Snapshots of 1000 messages

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 120404 | 14759 | 39271 | 66374 |
| $tokens_\%$ | 100.00 | 12.26 | 32.62 | 55.13 |
| $tokens \neq$ | 6.90 | 16.17 | 11.08 | 8.83 |
| $\frac{knownw}{tokens}$ | 35.19 | 33.36 | 35.60 | 35.36 |
| $\frac{knownw\neq}{knownw}$ | 10.01 | 28.90 | 17.44 | 13.89 |
| $\frac{stopw}{knownw}$ | 100.09 | 99.35 | 98.15 | 101.40 |
| $\frac{punct}{tokens}$ | 20.61 | 21.49 | 20.17 | 20.68 |
| $\frac{contrac}{tokens}$ | 1.13 | 0.65 | 1.07 | 1.26 |
| $\mu(tokens)$ | 3.81 | 3.88 | 3.79 | 3.80 |
| $\sigma(tokens)$ | 2.86 | 3.14 | 2.87 | 2.79 |
| $\mu(knownw)$ | 5.70 | 5.79 | 5.63 | 5.72 |
| $\sigma(knownw)$ | 2.27 | 2.28 | 2.22 | 2.29 |
| $\mu(knownw \neq)$ | 6.82 | 6.38 | 6.56 | 6.76 |
| $\sigma(knownw \neq)$ | 2.57 | 2.41 | 2.46 | 2.52 |
| $\mu(stopw)$ | 2.75 | 2.67 | 2.70 | 2.80 |
| $\sigma(stopw)$ | 1.11 | 1.10 | 1.12 | 1.12 |

TABLE S39. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 112920 | 20292 | 35086 | 57543 |
| $tokens_\%$ | 100.00 | 17.97 | 31.07 | 50.96 |
| $tokens \neq$ | 12.70 | 21.67 | 18.02 | 15.07 |
| $\frac{knownw}{tokens}$ | 24.46 | 24.38 | 25.07 | 24.12 |
| $\frac{knownw\neq}{knownw}$ | 7.22 | 15.54 | 10.01 | 10.01 |
| $\frac{stopw}{knownw}$ | 34.72 | 29.71 | 33.41 | 37.34 |
| $\frac{punct}{tokens}$ | 29.31 | 29.50 | 28.44 | 29.77 |
| $\frac{contrac}{tokens}$ | 0.07 | 0.08 | 0.03 | 0.09 |
| $\mu(tokens)$ | 3.89 | 3.66 | 3.99 | 3.91 |
| $\sigma(tokens)$ | 3.04 | 2.97 | 3.05 | 3.06 |
| $\mu(knownw)$ | 4.23 | 4.16 | 4.16 | 4.30 |
| $\sigma(knownw)$ | 2.19 | 2.20 | 2.15 | 2.22 |
| $\mu(knownw \neq)$ | 5.62 | 5.14 | 5.13 | 5.52 |
| $\sigma(knownw \neq)$ | 2.45 | 2.44 | 2.38 | 2.43 |
| $\mu(stopw)$ | 2.13 | 2.10 | 2.07 | 2.18 |
| $\sigma(stopw)$ | 0.96 | 0.98 | 0.92 | 0.98 |

TABLE S40. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 174202 | 21314 | 87882 | 65006 |
| $tokens_{\%}$ | 100.00 | 12.24 | 50.45 | 37.32 |
| $tokens \neq$ | 4.99 | 13.42 | 6.97 | 7.45 |
| $\frac{knownw}{tokens}$ | 34.80 | 34.92 | 32.78 | 37.50 |
| $\frac{knownw \neq}{knownw}$ | 7.66 | 22.59 | 11.65 | 12.04 |
| $\frac{stopw}{knownw}$ | 83.47 | 77.41 | 82.69 | 86.24 |
| $\frac{punct}{tokens}$ | 24.07 | 24.76 | 25.82 | 21.46 |
| $\frac{contrac}{tokens}$ | 0.94 | 0.95 | 0.90 | 1.00 |
| $\mu(\overline{tokens})$ | 3.68 | 3.64 | 3.65 | 3.73 |
| $\sigma(\overline{tokens})$ | 2.97 | 2.97 | 3.12 | 2.74 |
| $\mu(\overline{knownw})$ | 5.49 | 5.51 | 5.44 | 5.54 |
| $\sigma(\overline{knownw})$ | 2.45 | 2.45 | 2.40 | 2.52 |
| $\mu(\overline{knownw \neq})$ | 6.94 | 6.51 | 6.72 | 6.84 |
| $\sigma(\overline{knownw \neq})$ | 2.55 | 2.50 | 2.46 | 2.55 |
| $\mu(\overline{stopw})$ | 2.75 | 2.66 | 2.73 | 2.80 |
| $\sigma(\overline{stopw})$ | 1.10 | 1.09 | 1.10 | 1.10 |

TABLE S41. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 91013 | 14019 | 42963 | 34033 |
| $tokens_{\%}$ | 100.00 | 15.40 | 47.20 | 37.39 |
| $tokens \neq$ | 16.17 | 27.26 | 19.92 | 19.98 |
| $\frac{knownw}{tokens}$ | 17.96 | 18.32 | 17.71 | 18.12 |
| $\frac{knownw \neq}{knownw}$ | 10.98 | 29.01 | 14.84 | 15.37 |
| $\frac{stopw}{knownw}$ | 36.02 | 33.61 | 34.77 | 38.55 |
| $\frac{punct}{tokens}$ | 29.38 | 29.87 | 29.54 | 28.97 |
| $\frac{contrac}{tokens}$ | 0.03 | 0.06 | 0.04 | 0.00 |
| $\mu(\overline{tokens})$ | 4.02 | 3.92 | 3.99 | 4.10 |
| $\sigma(\overline{tokens})$ | 3.62 | 3.54 | 3.61 | 3.68 |
| $\mu(\overline{knownw})$ | 3.93 | 4.28 | 3.89 | 3.82 |
| $\sigma(\overline{knownw})$ | 2.13 | 2.33 | 2.10 | 2.07 |
| $\mu(\overline{knownw \neq})$ | 5.51 | 5.17 | 5.23 | 5.16 |
| $\sigma(\overline{knownw \neq})$ | 2.46 | 2.37 | 2.41 | 2.44 |
| $\mu(\overline{stopw})$ | 1.66 | 1.71 | 1.60 | 1.70 |
| $\sigma(\overline{stopw})$ | 0.97 | 0.96 | 0.97 | 0.97 |

TABLE S43. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 229938 | 169408 | 24494 | 36037 |
| $tokens_{\%}$ | 100.00 | 73.68 | 10.65 | 15.67 |
| $tokens \neq$ | 8.28 | 9.79 | 10.74 | 9.64 |
| $\frac{knownw}{tokens}$ | 32.84 | 33.23 | 29.87 | 33.05 |
| $\frac{knownw \neq}{knownw}$ | 12.10 | 14.81 | 17.10 | 16.42 |
| $\frac{stopw}{knownw}$ | 62.20 | 57.65 | 57.63 | 86.49 |
| $\frac{punct}{tokens}$ | 27.73 | 27.62 | 35.00 | 23.31 |
| $\frac{contrac}{tokens}$ | 0.39 | 0.25 | 0.42 | 1.04 |
| $\mu(\overline{tokens})$ | 3.49 | 3.46 | 3.42 | 3.68 |
| $\sigma(\overline{tokens})$ | 2.69 | 2.60 | 3.15 | 2.76 |
| $\mu(\overline{knownw})$ | 5.30 | 5.27 | 5.11 | 5.55 |
| $\sigma(\overline{knownw})$ | 2.33 | 2.25 | 2.62 | 2.53 |
| $\mu(\overline{knownw \neq})$ | 6.74 | 6.68 | 6.28 | 6.60 |
| $\sigma(\overline{knownw \neq})$ | 2.41 | 2.38 | 2.51 | 2.46 |
| $\mu(\overline{stopw})$ | 2.75 | 2.77 | 2.57 | 2.76 |
| $\sigma(\overline{stopw})$ | 1.13 | 1.13 | 1.13 | 1.12 |

TABLE S42. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 131584 | 33588 | 30532 | 67464 |
| $tokens_{\%}$ | 100.00 | 25.53 | 23.20 | 51.27 |
| $tokens \neq$ | 8.02 | 13.94 | 15.77 | 8.03 |
| $\frac{knownw}{tokens}$ | 33.86 | 34.18 | 33.71 | 33.78 |
| $\frac{knownw \neq}{knownw}$ | 10.82 | 19.24 | 24.01 | 13.78 |
| $\frac{stopw}{knownw}$ | 83.38 | 44.60 | 96.17 | 97.14 |
| $\frac{punct}{tokens}$ | 24.84 | 31.17 | 19.20 | 24.24 |
| $\frac{contrac}{tokens}$ | 1.28 | 0.26 | 1.31 | 1.77 |
| $\mu(\overline{tokens})$ | 3.58 | 3.58 | 3.82 | 3.47 |
| $\sigma(\overline{tokens})$ | 2.68 | 2.78 | 2.87 | 2.53 |
| $\mu(\overline{knownw})$ | 5.33 | 5.05 | 5.53 | 5.39 |
| $\sigma(\overline{knownw})$ | 2.25 | 2.32 | 2.22 | 2.21 |
| $\mu(\overline{knownw \neq})$ | 6.62 | 6.22 | 6.42 | 6.57 |
| $\sigma(\overline{knownw \neq})$ | 2.50 | 2.47 | 2.43 | 2.42 |
| $\mu(\overline{stopw})$ | 2.78 | 2.71 | 2.78 | 2.80 |
| $\sigma(\overline{stopw})$ | 1.12 | 1.10 | 1.11 | 1.13 |

TABLE S44. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 162140 | 59655 | 61987 | 40499 |
| $tokens_\%$ | 100.00 | 36.79 | 38.23 | 24.98 |
| $tokens \neq$ | 6.20 | 10.38 | 9.53 | 9.10 |
| $\frac{knownw}{tokens}$ | 34.97 | 34.08 | 34.98 | 36.28 |
| $\frac{knownw \neq}{knownw}$ | 7.97 | 14.81 | 13.65 | 15.80 |
| $\frac{stopw}{knownw}$ | 92.34 | 85.65 | 88.19 | 107.70 |
| $\frac{punct}{tokens}$ | 20.25 | 20.82 | 21.43 | 17.61 |
| $\frac{contrac}{tokens}$ | 1.06 | 0.65 | 0.78 | 2.08 |
| $\mu(\overline{tokens})$ | 3.63 | 3.59 | 3.61 | 3.74 |
| $\sigma(\overline{tokens})$ | 2.59 | 2.65 | 2.61 | 2.49 |
| $\mu(\overline{knownw})$ | 5.74 | 5.73 | 5.68 | 5.86 |
| $\sigma(\overline{knownw})$ | 2.36 | 2.42 | 2.35 | 2.29 |
| $\mu(\overline{knownw \neq})$ | 6.76 | 6.57 | 6.59 | 6.70 |
| $\sigma(\overline{knownw \neq})$ | 2.61 | 2.58 | 2.52 | 2.49 |
| $\mu(\overline{stopw})$ | 2.73 | 2.69 | 2.71 | 2.81 |
| $\sigma(\overline{stopw})$ | 1.09 | 1.08 | 1.11 | 1.07 |

TABLE S45. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 323627 | 19432 | 182161 | 122035 |
| $tokens_\%$ | 100.00 | 6.00 | 56.29 | 37.71 |
| $tokens \neq$ | 4.80 | 19.90 | 5.99 | 7.54 |
| $\frac{knownw}{tokens}$ | 38.64 | 38.45 | 38.34 | 39.13 |
| $\frac{knownw \neq}{knownw}$ | 7.57 | 33.60 | 9.97 | 13.15 |
| $\frac{stopw}{knownw}$ | 100.77 | 93.01 | 95.39 | 109.85 |
| $\frac{punct}{tokens}$ | 14.55 | 17.36 | 15.48 | 12.70 |
| $\frac{contrac}{tokens}$ | 0.51 | 0.66 | 0.34 | 0.74 |
| $\mu(\overline{tokens})$ | 3.90 | 3.97 | 3.82 | 4.02 |
| $\sigma(\overline{tokens})$ | 2.69 | 2.81 | 2.66 | 2.70 |
| $\mu(\overline{knownw})$ | 6.04 | 6.12 | 5.92 | 6.21 |
| $\sigma(\overline{knownw})$ | 2.54 | 2.62 | 2.53 | 2.52 |
| $\mu(\overline{knownw \neq})$ | 7.35 | 6.94 | 7.20 | 7.27 |
| $\sigma(\overline{knownw \neq})$ | 2.68 | 2.64 | 2.67 | 2.63 |
| $\mu(\overline{stopw})$ | 2.79 | 2.79 | 2.76 | 2.83 |
| $\sigma(\overline{stopw})$ | 1.08 | 1.07 | 1.07 | 1.10 |

TABLE S47. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 130341 | 21925 | 73977 | 34439 |
| $tokens_\%$ | 100.00 | 16.82 | 56.76 | 26.42 |
| $tokens \neq$ | 7.44 | 18.16 | 9.11 | 11.16 |
| $\frac{knownw}{tokens}$ | 35.53 | 36.93 | 35.07 | 35.63 |
| $\frac{knownw \neq}{knownw}$ | 9.89 | 26.21 | 12.94 | 18.54 |
| $\frac{stopw}{knownw}$ | 92.09 | 77.93 | 94.71 | 95.88 |
| $\frac{punct}{tokens}$ | 20.06 | 21.40 | 19.69 | 19.99 |
| $\frac{contrac}{tokens}$ | 0.78 | 0.62 | 0.58 | 1.30 |
| $\mu(\overline{tokens})$ | 3.98 | 4.06 | 4.01 | 3.86 |
| $\sigma(\overline{tokens})$ | 2.98 | 3.05 | 3.04 | 2.78 |
| $\mu(\overline{knownw})$ | 6.00 | 6.05 | 6.06 | 5.82 |
| $\sigma(\overline{knownw})$ | 2.64 | 2.72 | 2.67 | 2.53 |
| $\mu(\overline{knownw \neq})$ | 6.86 | 6.60 | 6.74 | 6.66 |
| $\sigma(\overline{knownw \neq})$ | 2.62 | 2.59 | 2.59 | 2.55 |
| $\mu(\overline{stopw})$ | 2.78 | 2.74 | 2.78 | 2.81 |
| $\sigma(\overline{stopw})$ | 1.07 | 1.07 | 1.07 | 1.05 |

TABLE S46. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 228757 | 49906 | 117956 | 60895 |
| $tokens_\%$ | 100.00 | 21.82 | 51.56 | 26.62 |
| $tokens \neq$ | 4.59 | 9.91 | 5.69 | 8.83 |
| $\frac{knownw}{tokens}$ | 35.86 | 35.21 | 35.55 | 36.98 |
| $\frac{knownw \neq}{knownw}$ | 5.44 | 13.91 | 7.94 | 12.06 |
| $\frac{stopw}{knownw}$ | 71.93 | 72.07 | 71.92 | 71.82 |
| $\frac{punct}{tokens}$ | 26.63 | 27.23 | 27.41 | 24.62 |
| $\frac{contrac}{tokens}$ | 0.47 | 0.45 | 0.48 | 0.45 |
| $\mu(\overline{tokens})$ | 3.82 | 3.78 | 3.79 | 3.89 |
| $\sigma(\overline{tokens})$ | 3.21 | 3.22 | 3.24 | 3.13 |
| $\mu(\overline{knownw})$ | 5.78 | 5.77 | 5.75 | 5.83 |
| $\sigma(\overline{knownw})$ | 2.37 | 2.34 | 2.40 | 2.34 |
| $\mu(\overline{knownw \neq})$ | 6.92 | 6.62 | 6.86 | 6.89 |
| $\sigma(\overline{knownw \neq})$ | 2.57 | 2.50 | 2.55 | 2.50 |
| $\mu(\overline{stopw})$ | 2.71 | 2.65 | 2.71 | 2.75 |
| $\sigma(\overline{stopw})$ | 1.08 | 1.07 | 1.09 | 1.08 |

TABLE S48. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 222661 | 135704 | 10228 | 76730 |
| $tokens_\%$ | 100.00 | 60.95 | 4.59 | 34.46 |
| $tokens \neq$ | 19.97 | 28.74 | 20.24 | 8.65 |
| $\frac{knownw}{tokens}$ | 27.19 | 21.83 | 29.95 | 36.31 |
| $\frac{knownw\neq}{knownw}$ | 11.42 | 14.56 | 34.87 | 13.63 |
| $\frac{stopw}{knownw}$ | 79.03 | 57.15 | 82.89 | 101.87 |
| $\frac{punct}{tokens}$ | 20.58 | 21.27 | 27.82 | 18.39 |
| $\frac{contrac}{tokens}$ | 0.62 | 0.10 | 0.67 | 1.53 |
| $\mu(\overline{tokens})$ | 3.97 | 4.01 | 3.86 | 3.91 |
| $\sigma(\overline{tokens})$ | 3.62 | 3.95 | 3.81 | 2.92 |
| $\mu(\overline{knownw})$ | 5.12 | 4.62 | 5.29 | 5.64 |
| $\sigma(\overline{knownw})$ | 2.48 | 2.49 | 2.54 | 2.33 |
| $\mu(\overline{knownw \neq})$ | 6.62 | 6.07 | 6.26 | 6.98 |
| $\sigma(\overline{knownw \neq})$ | 2.61 | 2.56 | 2.50 | 2.52 |
| $\mu(\overline{stopw})$ | 2.78 | 2.71 | 2.71 | 2.82 |
| $\sigma(\overline{stopw})$ | 1.09 | 1.04 | 1.09 | 1.12 |

TABLE S49. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 230109 | 75530 | 82221 | 72358 |
| $tokens_\%$ | 100.00 | 32.82 | 35.73 | 31.45 |
| $tokens \neq$ | 5.76 | 8.96 | 7.63 | 8.41 |
| $\frac{knownw}{tokens}$ | 32.92 | 34.09 | 32.19 | 32.52 |
| $\frac{knownw\neq}{knownw}$ | 7.15 | 11.55 | 11.53 | 13.24 |
| $\frac{stopw}{knownw}$ | 69.01 | 47.59 | 74.67 | 86.08 |
| $\frac{punct}{tokens}$ | 29.62 | 33.77 | 28.96 | 26.03 |
| $\frac{contrac}{tokens}$ | 0.68 | 0.29 | 0.80 | 0.95 |
| $\mu(\overline{tokens})$ | 3.51 | 3.42 | 3.45 | 3.67 |
| $\sigma(\overline{tokens})$ | 2.78 | 2.49 | 2.89 | 2.92 |
| $\mu(\overline{knownw})$ | 5.12 | 4.99 | 4.99 | 5.43 |
| $\sigma(\overline{knownw})$ | 2.45 | 2.28 | 2.54 | 2.50 |
| $\mu(\overline{knownw \neq})$ | 6.83 | 6.55 | 6.60 | 6.72 |
| $\sigma(\overline{knownw \neq})$ | 2.61 | 2.58 | 2.54 | 2.56 |
| $\mu(\overline{stopw})$ | 2.77 | 2.76 | 2.74 | 2.80 |
| $\sigma(\overline{stopw})$ | 1.13 | 1.12 | 1.14 | 1.13 |

TABLE S51. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 197572 | 55526 | 120382 | 21666 |
| $tokens_\%$ | 100.00 | 28.10 | 60.93 | 10.97 |
| $tokens \neq$ | 6.59 | 12.62 | 7.25 | 16.04 |
| $\frac{knownw}{tokens}$ | 35.68 | 36.91 | 35.11 | 35.72 |
| $\frac{knownw\neq}{knownw}$ | 8.43 | 17.62 | 10.36 | 26.54 |
| $\frac{stopw}{knownw}$ | 86.62 | 75.22 | 89.34 | 101.98 |
| $\frac{punct}{tokens}$ | 19.45 | 20.06 | 19.76 | 16.15 |
| $\frac{contrac}{tokens}$ | 0.64 | 0.36 | 0.70 | 1.03 |
| $\mu(\overline{tokens})$ | 3.65 | 3.69 | 3.63 | 3.62 |
| $\sigma(\overline{tokens})$ | 2.57 | 2.59 | 2.58 | 2.46 |
| $\mu(\overline{knownw})$ | 5.55 | 5.51 | 5.57 | 5.52 |
| $\sigma(\overline{knownw})$ | 2.39 | 2.47 | 2.37 | 2.28 |
| $\mu(\overline{knownw \neq})$ | 6.81 | 6.61 | 6.73 | 6.51 |
| $\sigma(\overline{knownw \neq})$ | 2.60 | 2.58 | 2.55 | 2.45 |
| $\mu(\overline{stopw})$ | 2.78 | 2.77 | 2.79 | 2.75 |
| $\sigma(\overline{stopw})$ | 1.08 | 1.06 | 1.09 | 1.09 |

TABLE S50. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 150379 | 16680 | 59346 | 74353 |
| $tokens_\%$ | 100.00 | 11.09 | 39.46 | 49.44 |
| $tokens \neq$ | 5.94 | 16.98 | 8.28 | 7.89 |
| $\frac{knownw}{tokens}$ | 30.57 | 31.41 | 30.35 | 30.55 |
| $\frac{knownw\neq}{knownw}$ | 7.83 | 27.58 | 12.35 | 11.52 |
| $\frac{stopw}{knownw}$ | 70.72 | 67.88 | 67.77 | 73.71 |
| $\frac{punct}{tokens}$ | 29.22 | 28.62 | 29.79 | 28.90 |
| $\frac{contrac}{tokens}$ | 0.57 | 0.64 | 0.48 | 0.63 |
| $\mu(\overline{tokens})$ | 3.52 | 3.58 | 3.50 | 3.53 |
| $\sigma(\overline{tokens})$ | 3.03 | 2.99 | 3.03 | 3.04 |
| $\mu(\overline{knownw})$ | 5.32 | 5.63 | 5.28 | 5.28 |
| $\sigma(\overline{knownw})$ | 2.25 | 2.43 | 2.21 | 2.24 |
| $\mu(\overline{knownw \neq})$ | 6.65 | 6.37 | 6.32 | 6.60 |
| $\sigma(\overline{knownw \neq})$ | 2.55 | 2.54 | 2.42 | 2.52 |
| $\mu(\overline{stopw})$ | 2.74 | 2.70 | 2.74 | 2.76 |
| $\sigma(\overline{stopw})$ | 1.08 | 1.10 | 1.09 | 1.07 |

TABLE S52. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 202427 | 25044 | 48812 | 128572 |
| $tokens_\%$ | 100.00 | 12.37 | 24.11 | 63.51 |
| $tokens \neq$ | 6.31 | 14.25 | 13.04 | 6.46 |
| $\frac{knownw}{tokens}$ | 34.41 | 33.69 | 33.82 | 34.78 |
| $\frac{knownw\neq}{knownw}$ | 8.17 | 24.19 | 17.68 | 9.77 |
| $\frac{stopw}{knownw}$ | 97.45 | 56.73 | 92.83 | 106.85 |
| $\frac{punct}{tokens}$ | 20.32 | 31.98 | 20.61 | 17.94 |
| $\frac{contrac}{tokens}$ | 0.89 | 0.39 | 0.68 | 1.06 |
| $\mu(tokens)$ | 3.69 | 3.27 | 3.69 | 3.78 |
| $\sigma(tokens)$ | 2.61 | 2.50 | 2.62 | 2.63 |
| $\mu(knownw)$ | 5.48 | 4.94 | 5.42 | 5.61 |
| $\sigma(knownw)$ | 2.27 | 2.40 | 2.22 | 2.24 |
| $\mu(knownw \neq)$ | 6.86 | 6.34 | 6.49 | 6.88 |
| $\sigma(knownw \neq)$ | 2.59 | 2.55 | 2.49 | 2.53 |
| $\mu(stopw)$ | 2.79 | 2.68 | 2.77 | 2.80 |
| $\sigma(stopw)$ | 1.10 | 1.11 | 1.11 | 1.10 |

TABLE S53. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 115469 | 21722 | 25301 | 68447 |
| $tokens_\%$ | 100.00 | 18.81 | 21.91 | 59.28 |
| $tokens \neq$ | 7.53 | 14.84 | 14.96 | 8.49 |
| $\frac{knownw}{tokens}$ | 34.41 | 31.22 | 33.61 | 35.72 |
| $\frac{knownw\neq}{knownw}$ | 12.24 | 25.00 | 26.19 | 15.45 |
| $\frac{stopw}{knownw}$ | 107.64 | 71.41 | 102.54 | 119.46 |
| $\frac{punct}{tokens}$ | 19.49 | 31.70 | 20.79 | 15.13 |
| $\frac{contrac}{tokens}$ | 1.55 | 0.73 | 1.41 | 1.86 |
| $\mu(tokens)$ | 3.64 | 3.42 | 3.66 | 3.71 |
| $\sigma(tokens)$ | 2.56 | 2.73 | 2.67 | 2.46 |
| $\mu(knownw)$ | 5.61 | 5.22 | 5.52 | 5.75 |
| $\sigma(knownw)$ | 2.35 | 2.52 | 2.30 | 2.30 |
| $\mu(knownw \neq)$ | 6.83 | 6.29 | 6.39 | 6.85 |
| $\sigma(knownw \neq)$ | 2.55 | 2.49 | 2.43 | 2.50 |
| $\mu(stopw)$ | 2.72 | 2.66 | 2.69 | 2.74 |
| $\sigma(stopw)$ | 1.12 | 1.11 | 1.14 | 1.11 |

TABLE S54. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

## 2. Snapshots of 2000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 247648 | 24597 | 106857 | 116194 |
| $tokens_\%$ | 100.00 | 9.93 | 43.15 | 46.92 |
| $tokens \neq$ | 4.51 | 13.61 | 6.69 | 6.33 |
| $\frac{knownw}{tokens}$ | 35.66 | 34.84 | 35.34 | 36.12 |
| $\frac{knownw\neq}{knownw}$ | 6.48 | 22.49 | 10.66 | 9.84 |
| $\frac{stopw}{knownw}$ | 98.11 | 90.54 | 97.56 | 100.15 |
| $\frac{punct}{tokens}$ | 21.23 | 24.02 | 21.65 | 20.26 |
| $\frac{contrac}{tokens}$ | 1.15 | 0.71 | 1.06 | 1.33 |
| $\mu(\overline{tokens})$ | 3.81 | 3.84 | 3.81 | 3.82 |
| $\sigma(\overline{tokens})$ | 2.81 | 2.97 | 2.85 | 2.75 |
| $\mu(\overline{knownw})$ | 5.73 | 5.86 | 5.73 | 5.70 |
| $\sigma(\overline{knownw})$ | 2.25 | 2.25 | 2.28 | 2.22 |
| $\mu(\overline{knownw \neq})$ | 6.99 | 6.54 | 6.85 | 6.85 |
| $\sigma(\overline{knownw \neq})$ | 2.53 | 2.40 | 2.53 | 2.46 |
| $\mu(\overline{stopw})$ | 2.76 | 2.72 | 2.72 | 2.79 |
| $\sigma(\overline{stopw})$ | 1.11 | 1.14 | 1.11 | 1.09 |

TABLE S55. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 239130 | 31280 | 120073 | 87779 |
| $tokens_\%$ | 100.00 | 13.08 | 50.21 | 36.71 |
| $tokens \neq$ | 9.86 | 20.43 | 12.50 | 12.96 |
| $\frac{knownw}{tokens}$ | 23.86 | 24.60 | 24.20 | 23.14 |
| $\frac{knownw\neq}{knownw}$ | 4.69 | 13.40 | 6.05 | 7.28 |
| $\frac{stopw}{knownw}$ | 34.68 | 33.74 | 34.21 | 35.69 |
| $\frac{punct}{tokens}$ | 29.79 | 29.42 | 28.97 | 31.05 |
| $\frac{contrac}{tokens}$ | 0.04 | 0.05 | 0.03 | 0.05 |
| $\mu(\overline{tokens})$ | 3.85 | 3.91 | 3.86 | 3.83 |
| $\sigma(\overline{tokens})$ | 3.04 | 3.21 | 3.01 | 3.02 |
| $\mu(\overline{knownw})$ | 4.12 | 4.03 | 4.10 | 4.18 |
| $\sigma(\overline{knownw})$ | 2.14 | 2.14 | 2.17 | 2.10 |
| $\mu(\overline{knownw \neq})$ | 5.59 | 5.03 | 5.37 | 5.34 |
| $\sigma(\overline{knownw \neq})$ | 2.41 | 2.32 | 2.34 | 2.37 |
| $\mu(\overline{stopw})$ | 2.06 | 2.10 | 2.04 | 2.08 |
| $\sigma(\overline{stopw})$ | 0.96 | 1.00 | 0.96 | 0.94 |

TABLE S56. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $tokens$ | 301821 | 48463 | 113581 | 139778 |
| $tokens_\%$ | 100.00 | 16.06 | 37.63 | 46.31 |
| $tokens \neq$ | 4.84 | 9.89 | 6.41 | 7.13 |
| $\frac{knownw}{tokens}$ | 35.21 | 35.30 | 34.09 | 36.09 |
| $\frac{knownw\neq}{knownw}$ | 6.11 | 16.12 | 10.72 | 9.02 |
| $\frac{stopw}{knownw}$ | 82.01 | 82.66 | 82.48 | 81.44 |
| $\frac{punct}{tokens}$ | 23.30 | 23.53 | 24.64 | 22.14 |
| $\frac{contrac}{tokens}$ | 0.78 | 0.79 | 0.90 | 0.69 |
| $\mu(\overline{tokens})$ | 3.63 | 3.62 | 3.58 | 3.67 |
| $\sigma(\overline{tokens})$ | 2.76 | 2.84 | 2.80 | 2.70 |
| $\mu(\overline{knownw})$ | 5.52 | 5.51 | 5.47 | 5.56 |
| $\sigma(\overline{knownw})$ | 2.39 | 2.39 | 2.33 | 2.43 |
| $\mu(\overline{knownw \neq})$ | 6.97 | 6.56 | 6.78 | 6.92 |
| $\sigma(\overline{knownw \neq})$ | 2.58 | 2.47 | 2.49 | 2.56 |
| $\mu(\overline{stopw})$ | 2.78 | 2.72 | 2.74 | 2.84 |
| $\sigma(\overline{stopw})$ | 1.09 | 1.08 | 1.09 | 1.09 |

TABLE S57. Token sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

## D. Sizes of sentences

## 1. Snapshots of 1000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 4122 | 539 | 1382 | 2203 |
| $sents_\%$ | 99.95 | 13.07 | 33.51 | 53.42 |
| $\mu_S(chars)$ | 133.04 | 126.55 | 129.10 | 136.97 |
| $\sigma_S(chars)$ | 126.54 | 170.00 | 125.69 | 113.82 |
| $\mu_S(tokens)$ | 29.25 | 27.39 | 28.44 | 30.19 |
| $\sigma_S(tokens)$ | 27.76 | 37.29 | 27.71 | 24.87 |
| $\mu_S(knownw)$ | 9.19 | 8.08 | 8.98 | 9.58 |
| $\sigma_S(knownw)$ | 8.01 | 7.90 | 8.36 | 7.78 |
| $\mu_S(stopw)$ | 9.06 | 7.72 | 8.60 | 9.67 |
| $\sigma_S(stopw)$ | 7.53 | 7.02 | 7.32 | 7.73 |
| $\mu_S(puncts)$ | 6.06 | 5.89 | 5.75 | 6.30 |
| $\sigma_S(puncts)$ | 9.83 | 14.73 | 9.47 | 8.46 |

TABLE S58. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| *sents* | 4916 | 732 | 1575 | 2611 |
| $sents_\%$ | 99.96 | 14.88 | 32.03 | 53.09 |
| $\mu_S(chars)$ | 103.80 | 117.55 | 103.22 | 100.22 |
| $\sigma_S(chars)$ | 129.26 | 183.45 | 113.97 | 118.84 |
| $\mu_S(tokens)$ | 22.97 | 27.73 | 22.28 | 22.04 |
| $\sigma_S(tokens)$ | 32.31 | 52.34 | 25.24 | 28.39 |
| $\mu_S(knownw)$ | 4.64 | 5.15 | 4.67 | 4.47 |
| $\sigma_S(knownw)$ | 6.67 | 8.70 | 6.11 | 6.32 |
| $\mu_S(stopw)$ | 1.63 | 1.68 | 1.59 | 1.65 |
| $\sigma_S(stopw)$ | 2.38 | 2.42 | 2.21 | 2.47 |
| $\mu_S(puncts)$ | 6.74 | 8.18 | 6.34 | 6.56 |
| $\sigma_S(puncts)$ | 11.58 | 20.16 | 8.42 | 9.74 |

TABLE S59.  Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| *sents* | 3210 | 440 | 1628 | 1143 |
| $sents_\%$ | 99.97 | 13.70 | 50.70 | 35.60 |
| $\mu_S(chars)$ | 135.39 | 147.01 | 125.14 | 145.39 |
| $\sigma_S(chars)$ | 169.25 | 187.32 | 152.73 | 182.75 |
| $\mu_S(tokens)$ | 28.36 | 31.87 | 26.40 | 29.78 |
| $\sigma_S(tokens)$ | 40.96 | 48.66 | 40.30 | 38.39 |
| $\mu_S(knownw)$ | 4.31 | 4.64 | 3.89 | 4.77 |
| $\sigma_S(knownw)$ | 7.10 | 7.78 | 6.28 | 7.85 |
| $\mu_S(stopw)$ | 1.65 | 1.74 | 1.44 | 1.91 |
| $\sigma_S(stopw)$ | 2.60 | 2.51 | 2.24 | 3.06 |
| $\mu_S(puncts)$ | 8.34 | 9.53 | 7.80 | 8.63 |
| $\sigma_S(puncts)$ | 14.82 | 17.77 | 15.28 | 12.70 |

TABLE S62.  Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| *sents* | 6348 | 686 | 2713 | 2951 |
| $sents_\%$ | 99.97 | 10.80 | 42.72 | 46.47 |
| $\mu_S(chars)$ | 121.50 | 134.25 | 143.13 | 98.56 |
| $\sigma_S(chars)$ | 295.16 | 265.18 | 407.75 | 131.22 |
| $\mu_S(tokens)$ | 27.45 | 31.07 | 32.40 | 22.03 |
| $\sigma_S(tokens)$ | 64.86 | 64.41 | 87.64 | 31.13 |
| $\mu_S(knownw)$ | 7.54 | 8.53 | 8.41 | 6.50 |
| $\sigma_S(knownw)$ | 11.07 | 13.05 | 13.59 | 7.23 |
| $\mu_S(stopw)$ | 6.82 | 7.07 | 7.53 | 6.11 |
| $\sigma_S(stopw)$ | 7.01 | 7.09 | 7.60 | 6.31 |
| $\mu_S(puncts)$ | 6.61 | 7.70 | 8.37 | 4.73 |
| $\sigma_S(puncts)$ | 29.24 | 27.79 | 40.30 | 12.66 |

TABLE S60.  Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| *sents* | 3801 | 590 | 942 | 2271 |
| $sents_\%$ | 99.95 | 15.51 | 24.77 | 59.72 |
| $\mu_S(chars)$ | 149.16 | 239.36 | 150.63 | 124.99 |
| $\sigma_S(chars)$ | 297.69 | 590.81 | 296.82 | 135.54 |
| $\mu_S(tokens)$ | 34.63 | 56.95 | 32.42 | 29.72 |
| $\sigma_S(tokens)$ | 72.93 | 150.58 | 58.66 | 37.79 |
| $\mu_S(knownw)$ | 9.96 | 12.67 | 9.92 | 9.26 |
| $\sigma_S(knownw)$ | 13.45 | 25.21 | 9.23 | 10.00 |
| $\mu_S(stopw)$ | 8.68 | 7.59 | 9.37 | 8.67 |
| $\sigma_S(stopw)$ | 7.58 | 8.09 | 7.98 | 7.22 |
| $\mu_S(puncts)$ | 8.61 | 17.77 | 6.23 | 7.22 |
| $\sigma_S(puncts)$ | 29.85 | 64.00 | 19.41 | 15.63 |

TABLE S63.  Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| *sents* | 5430 | 3643 | 455 | 1334 |
| $sents_\%$ | 99.96 | 67.07 | 8.38 | 24.56 |
| $\mu_S(chars)$ | 175.81 | 190.20 | 219.32 | 121.38 |
| $\sigma_S(chars)$ | 617.21 | 727.56 | 479.42 | 150.05 |
| $\mu_S(tokens)$ | 42.38 | 46.54 | 53.84 | 27.02 |
| $\sigma_S(tokens)$ | 189.73 | 225.85 | 126.24 | 38.45 |
| $\mu_S(knownw)$ | 11.93 | 13.24 | 14.38 | 7.52 |
| $\sigma_S(knownw)$ | 34.19 | 39.74 | 31.86 | 8.66 |
| $\mu_S(stopw)$ | 7.40 | 7.66 | 7.25 | 6.75 |
| $\sigma_S(stopw)$ | 10.16 | 11.41 | 9.68 | 5.67 |
| $\mu_S(puncts)$ | 11.77 | 12.88 | 18.85 | 6.30 |
| $\sigma_S(puncts)$ | 79.52 | 94.48 | 55.42 | 16.28 |

TABLE S61.  Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| *sents* | 5008 | 2032 | 2001 | 976 |
| $sents_\%$ | 99.98 | 40.57 | 39.95 | 19.48 |
| $\mu_S(chars)$ | 143.41 | 128.61 | 135.77 | 189.77 |
| $\sigma_S(chars)$ | 179.41 | 171.80 | 181.92 | 182.09 |
| $\mu_S(tokens)$ | 32.39 | 29.37 | 30.99 | 41.52 |
| $\sigma_S(tokens)$ | 44.25 | 44.59 | 44.89 | 40.88 |
| $\mu_S(knownw)$ | 9.48 | 8.07 | 9.09 | 13.23 |
| $\sigma_S(knownw)$ | 9.92 | 7.62 | 9.87 | 12.88 |
| $\mu_S(stopw)$ | 9.21 | 7.34 | 8.24 | 15.06 |
| $\sigma_S(stopw)$ | 9.71 | 7.15 | 7.59 | 14.70 |
| $\mu_S(puncts)$ | 6.57 | 6.13 | 6.65 | 7.33 |
| $\sigma_S(puncts)$ | 14.10 | 12.62 | 17.01 | 9.76 |

TABLE S64.  Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 4846 | 765 | 2720 | 1363 |
| $sents_\%$ | 99.96 | 15.78 | 56.11 | 28.11 |
| $\mu_S(chars)$ | 127.17 | 137.06 | 130.14 | 115.52 |
| $\sigma_S(chars)$ | 114.05 | 129.07 | 117.97 | 94.20 |
| $\mu_S(tokens)$ | 26.90 | 28.67 | 27.20 | 25.28 |
| $\sigma_S(tokens)$ | 27.19 | 29.52 | 28.85 | 21.69 |
| $\mu_S(knownw)$ | 8.15 | 8.81 | 8.19 | 7.68 |
| $\sigma_S(knownw)$ | 7.34 | 10.08 | 7.10 | 5.78 |
| $\mu_S(stopw)$ | 7.89 | 7.38 | 8.10 | 7.75 |
| $\sigma_S(stopw)$ | 6.63 | 6.86 | 6.76 | 6.22 |
| $\mu_S(puncts)$ | 5.40 | 6.14 | 5.36 | 5.06 |
| $\sigma_S(puncts)$ | 10.97 | 10.85 | 12.46 | 7.15 |

TABLE S65. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 5872 | 2452 | 305 | 3117 |
| $sents_\%$ | 99.97 | 41.74 | 5.19 | 53.06 |
| $\mu_S(chars)$ | 188.01 | 282.66 | 154.73 | 116.69 |
| $\sigma_S(chars)$ | 379.46 | 544.78 | 268.44 | 135.98 |
| $\mu_S(tokens)$ | 37.93 | 55.37 | 33.55 | 24.63 |
| $\sigma_S(tokens)$ | 102.15 | 151.69 | 54.34 | 29.14 |
| $\mu_S(knownw)$ | 8.23 | 8.06 | 8.97 | 8.28 |
| $\sigma_S(knownw)$ | 15.13 | 21.01 | 12.01 | 8.33 |
| $\mu_S(stopw)$ | 7.12 | 5.94 | 7.30 | 8.03 |
| $\sigma_S(stopw)$ | 6.67 | 7.10 | 6.61 | 6.16 |
| $\mu_S(puncts)$ | 7.82 | 11.79 | 9.34 | 4.54 |
| $\sigma_S(puncts)$ | 32.29 | 47.39 | 22.49 | 11.15 |

TABLE S68. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 13129 | 832 | 6892 | 5407 |
| $sents_\%$ | 99.98 | 6.34 | 52.49 | 41.18 |
| $\mu_S(chars)$ | 115.91 | 111.90 | 121.95 | 108.78 |
| $\sigma_S(chars)$ | 92.56 | 90.52 | 96.28 | 87.14 |
| $\mu_S(tokens)$ | 24.65 | 23.37 | 26.43 | 22.57 |
| $\sigma_S(tokens)$ | 20.19 | 19.24 | 21.47 | 18.29 |
| $\mu_S(knownw)$ | 7.77 | 7.14 | 7.93 | 7.65 |
| $\sigma_S(knownw)$ | 6.13 | 5.77 | 6.36 | 5.87 |
| $\mu_S(stopw)$ | 8.65 | 7.50 | 8.73 | 8.72 |
| $\sigma_S(stopw)$ | 6.97 | 6.65 | 7.26 | 6.63 |
| $\mu_S(puncts)$ | 3.59 | 4.06 | 4.10 | 2.87 |
| $\sigma_S(puncts)$ | 5.13 | 5.07 | 5.44 | 4.63 |

TABLE S66. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 6904 | 1783 | 4292 | 831 |
| $sents_\%$ | 99.97 | 25.82 | 62.15 | 12.03 |
| $\mu_S(chars)$ | 128.77 | 139.01 | 126.25 | 119.47 |
| $\sigma_S(chars)$ | 192.59 | 212.95 | 180.66 | 204.77 |
| $\mu_S(tokens)$ | 28.62 | 31.15 | 28.05 | 26.07 |
| $\sigma_S(tokens)$ | 45.60 | 53.71 | 43.47 | 36.07 |
| $\mu_S(knownw)$ | 8.23 | 8.55 | 8.07 | 8.35 |
| $\sigma_S(knownw)$ | 10.44 | 12.28 | 9.88 | 8.76 |
| $\mu_S(stopw)$ | 7.56 | 6.96 | 7.61 | 8.52 |
| $\sigma_S(stopw)$ | 7.26 | 6.55 | 7.16 | 8.91 |
| $\mu_S(puncts)$ | 5.57 | 6.26 | 5.54 | 4.21 |
| $\sigma_S(puncts)$ | 14.85 | 21.47 | 12.55 | 5.13 |

TABLE S69. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 6943 | 1347 | 3512 | 2085 |
| $sents_\%$ | 99.99 | 19.40 | 50.58 | 30.03 |
| $\mu_S(chars)$ | 154.08 | 164.89 | 158.17 | 140.14 |
| $\sigma_S(chars)$ | 326.95 | 407.00 | 335.97 | 241.95 |
| $\mu_S(tokens)$ | 32.95 | 37.06 | 33.59 | 29.21 |
| $\sigma_S(tokens)$ | 77.36 | 109.67 | 76.77 | 46.94 |
| $\mu_S(knownw)$ | 10.00 | 10.89 | 10.29 | 8.92 |
| $\sigma_S(knownw)$ | 19.48 | 24.24 | 20.87 | 12.20 |
| $\mu_S(stopw)$ | 7.40 | 8.10 | 7.45 | 6.85 |
| $\sigma_S(stopw)$ | 6.94 | 8.11 | 6.59 | 6.64 |
| $\mu_S(puncts)$ | 8.78 | 10.10 | 9.21 | 7.20 |
| $\sigma_S(puncts)$ | 37.62 | 51.25 | 39.10 | 20.90 |

TABLE S67. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 6338 | 1404 | 2254 | 2682 |
| $sents_\%$ | 99.97 | 22.15 | 35.55 | 42.30 |
| $\mu_S(chars)$ | 151.69 | 214.02 | 153.30 | 117.59 |
| $\sigma_S(chars)$ | 516.16 | 995.57 | 311.97 | 160.49 |
| $\mu_S(tokens)$ | 36.33 | 53.84 | 36.51 | 26.99 |
| $\sigma_S(tokens)$ | 148.34 | 282.11 | 98.65 | 43.75 |
| $\mu_S(knownw)$ | 10.34 | 15.08 | 10.45 | 7.76 |
| $\sigma_S(knownw)$ | 46.35 | 90.03 | 28.23 | 12.02 |
| $\mu_S(stopw)$ | 7.16 | 7.31 | 7.61 | 6.70 |
| $\sigma_S(stopw)$ | 7.34 | 8.87 | 7.02 | 6.65 |
| $\mu_S(puncts)$ | 10.78 | 18.21 | 10.59 | 7.03 |
| $\sigma_S(puncts)$ | 66.45 | 125.67 | 46.33 | 17.92 |

TABLE S70. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 3392 | 453 | 1213 | 1728 |
| $sents_\%$ | 99.94 | 13.35 | 35.74 | 50.91 |
| $\mu_S(chars)$ | 184.48 | 154.14 | 201.62 | 180.18 |
| $\sigma_S(chars)$ | 381.98 | 223.24 | 352.66 | 430.77 |
| $\mu_S(tokens)$ | 44.34 | 36.84 | 48.93 | 43.03 |
| $\sigma_S(tokens)$ | 103.33 | 60.92 | 92.80 | 117.95 |
| $\mu_S(knownw)$ | 11.30 | 9.32 | 12.13 | 11.23 |
| $\sigma_S(knownw)$ | 19.15 | 12.42 | 17.91 | 21.29 |
| $\mu_S(stopw)$ | 8.50 | 6.85 | 8.92 | 8.64 |
| $\sigma_S(stopw)$ | 8.71 | 6.23 | 10.27 | 8.00 |
| $\mu_S(puncts)$ | 12.96 | 10.55 | 14.58 | 12.44 |
| $\sigma_S(puncts)$ | 47.48 | 26.79 | 39.22 | 56.16 |

TABLE S71. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 6904 | 455 | 1645 | 4806 |
| $sents_\%$ | 99.97 | 6.59 | 23.82 | 69.59 |
| $\mu_S(chars)$ | 132.47 | 216.70 | 136.31 | 123.12 |
| $\sigma_S(chars)$ | 207.68 | 501.24 | 216.42 | 146.15 |
| $\mu_S(tokens)$ | 29.34 | 55.06 | 29.68 | 26.77 |
| $\sigma_S(tokens)$ | 53.74 | 150.99 | 44.17 | 35.39 |
| $\mu_S(knownw)$ | 9.01 | 15.73 | 8.75 | 8.46 |
| $\sigma_S(knownw)$ | 13.78 | 38.50 | 10.26 | 9.57 |
| $\mu_S(stopw)$ | 8.85 | 9.27 | 8.41 | 8.96 |
| $\sigma_S(stopw)$ | 8.24 | 9.76 | 8.17 | 8.10 |
| $\mu_S(puncts)$ | 5.98 | 17.62 | 6.12 | 4.82 |
| $\sigma_S(puncts)$ | 22.63 | 69.44 | 15.62 | 13.48 |

TABLE S72. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 4374 | 475 | 880 | 3021 |
| $sents_\%$ | 99.95 | 10.85 | 20.11 | 69.04 |
| $\mu_S(chars)$ | 116.40 | 186.35 | 126.84 | 102.28 |
| $\sigma_S(chars)$ | 172.52 | 404.92 | 128.96 | 107.02 |
| $\mu_S(tokens)$ | 26.41 | 45.77 | 28.76 | 22.66 |
| $\sigma_S(tokens)$ | 48.50 | 125.24 | 29.91 | 24.55 |
| $\mu_S(knownw)$ | 8.09 | 11.78 | 8.60 | 7.36 |
| $\sigma_S(knownw)$ | 9.75 | 18.95 | 8.49 | 7.58 |
| $\mu_S(stopw)$ | 8.58 | 8.98 | 8.62 | 8.50 |
| $\sigma_S(stopw)$ | 8.20 | 8.87 | 7.84 | 8.19 |
| $\mu_S(puncts)$ | 5.15 | 14.53 | 5.98 | 3.43 |
| $\sigma_S(puncts)$ | 21.86 | 61.78 | 10.51 | 6.48 |

TABLE S73. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

## 2. Snapshots of 2000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 8490 | 890 | 3761 | 3841 |
| $sents_\%$ | 99.98 | 10.48 | 44.29 | 45.23 |
| $\mu_S(chars)$ | 133.76 | 126.93 | 130.88 | 138.08 |
| $\sigma_S(chars)$ | 340.18 | 171.07 | 489.13 | 121.23 |
| $\mu_S(tokens)$ | 29.20 | 27.71 | 28.42 | 30.30 |
| $\sigma_S(tokens)$ | 65.82 | 39.36 | 93.20 | 26.61 |
| $\mu_S(knownw)$ | 9.36 | 8.52 | 9.07 | 9.84 |
| $\sigma_S(knownw)$ | 12.30 | 7.84 | 15.98 | 8.35 |
| $\mu_S(stopw)$ | 9.06 | 7.47 | 8.62 | 9.85 |
| $\sigma_S(stopw)$ | 8.48 | 6.78 | 9.09 | 8.11 |
| $\mu_S(puncts)$ | 6.23 | 6.71 | 6.16 | 6.18 |
| $\sigma_S(puncts)$ | 28.34 | 18.95 | 40.65 | 8.61 |

TABLE S74. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 10286 | 1406 | 5036 | 3846 |
| $sents_\%$ | 99.98 | 13.67 | 48.95 | 37.38 |
| $\mu_S(chars)$ | 104.54 | 101.43 | 107.50 | 101.76 |
| $\sigma_S(chars)$ | 191.10 | 110.46 | 169.28 | 235.94 |
| $\mu_S(tokens)$ | 23.25 | 22.25 | 23.85 | 22.83 |
| $\sigma_S(tokens)$ | 47.09 | 26.81 | 40.94 | 58.92 |
| $\mu_S(knownw)$ | 4.59 | 4.48 | 4.76 | 4.42 |
| $\sigma_S(knownw)$ | 7.20 | 5.92 | 7.71 | 6.93 |
| $\mu_S(stopw)$ | 1.59 | 1.46 | 1.65 | 1.56 |
| $\sigma_S(stopw)$ | 2.40 | 2.29 | 2.51 | 2.29 |
| $\mu_S(puncts)$ | 6.93 | 6.55 | 6.91 | 7.09 |
| $\sigma_S(puncts)$ | 17.77 | 10.00 | 15.35 | 22.35 |

TABLE S75. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $sents$ | 12233 | 1919 | 4209 | 6107 |
| $sents_\%$ | 99.98 | 15.68 | 34.40 | 49.91 |
| $\mu_S(chars)$ | 106.32 | 109.28 | 114.71 | 99.56 |
| $\sigma_S(chars)$ | 181.89 | 137.90 | 201.03 | 179.78 |
| $\mu_S(tokens)$ | 24.68 | 25.26 | 26.99 | 22.89 |
| $\sigma_S(tokens)$ | 48.90 | 34.66 | 54.45 | 48.59 |
| $\mu_S(knownw)$ | 7.00 | 7.16 | 7.43 | 6.65 |
| $\sigma_S(knownw)$ | 9.88 | 7.99 | 9.90 | 10.38 |
| $\mu_S(stopw)$ | 6.04 | 6.17 | 6.41 | 5.73 |
| $\sigma_S(stopw)$ | 6.29 | 6.06 | 6.08 | 6.48 |
| $\mu_S(puncts)$ | 5.75 | 5.94 | 6.66 | 5.07 |
| $\sigma_S(puncts)$ | 20.63 | 13.97 | 23.75 | 20.03 |

TABLE S76. Sentences sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

## E. Messages

### 1. Snapshots of 1000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 999 | 120 | 394 | 485 |
| $msgs_\%$ | 100.00 | 12.01 | 39.44 | 48.55 |
| $\mu_M(sents)$ | 4.96 | 5.40 | 4.42 | 5.28 |
| $\sigma_M(sents)$ | 5.51 | 4.58 | 4.30 | 6.48 |
| $\mu_M(tokens)$ | 122.21 | 124.05 | 101.06 | 138.95 |
| $\sigma_M(tokens)$ | 156.44 | 170.65 | 109.44 | 181.18 |
| $\mu_M(knownw)$ | 38.43 | 36.65 | 31.92 | 44.17 |
| $\sigma_M(knownw)$ | 46.12 | 38.27 | 37.08 | 53.24 |
| $\mu_M(stopw)$ | 36.85 | 34.42 | 29.74 | 43.24 |
| $\sigma_M(stopw)$ | 45.03 | 35.03 | 35.08 | 52.83 |
| $\mu_M(puncts)$ | 26.39 | 27.23 | 21.28 | 30.33 |
| $\sigma_M(puncts)$ | 48.68 | 63.42 | 25.34 | 57.68 |
| $\mu_M(chars)$ | 551.97 | 573.65 | 455.12 | 625.27 |
| $\sigma_M(chars)$ | 674.26 | 794.67 | 502.11 | 749.84 |

TABLE S77. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 990 | 144 | 327 | 519 |
| $msgs_\%$ | 100.00 | 14.55 | 33.03 | 52.42 |
| $\mu_M(sents)$ | 5.96 | 6.05 | 5.81 | 6.02 |
| $\sigma_M(sents)$ | 2.97 | 3.83 | 2.73 | 2.84 |
| $\mu_M(tokens)$ | 115.01 | 141.84 | 108.18 | 111.87 |
| $\sigma_M(tokens)$ | 98.22 | 179.36 | 64.58 | 81.30 |
| $\mu_M(knownw)$ | 23.97 | 27.06 | 23.39 | 23.47 |
| $\sigma_M(knownw)$ | 17.82 | 24.77 | 13.77 | 17.69 |
| $\mu_M(stopw)$ | 8.11 | 8.54 | 7.68 | 8.27 |
| $\sigma_M(stopw)$ | 7.74 | 7.10 | 4.34 | 9.40 |
| $\mu_M(puncts)$ | 33.51 | 41.69 | 30.56 | 33.11 |
| $\sigma_M(puncts)$ | 30.96 | 58.92 | 19.90 | 24.31 |
| $\mu_M(chars)$ | 521.57 | 603.14 | 503.16 | 510.55 |
| $\sigma_M(chars)$ | 383.91 | 580.21 | 307.30 | 355.04 |

TABLE S78. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 1000 | 115 | 348 | 537 |
| $msgs_\%$ | 100.00 | 11.50 | 34.80 | 53.70 |
| $\mu_M(sents)$ | 7.25 | 6.87 | 8.65 | 6.43 |
| $\sigma_M(sents)$ | 6.15 | 4.83 | 7.33 | 5.37 |
| $\mu_M(tokens)$ | 176.08 | 187.21 | 255.09 | 122.50 |
| $\sigma_M(tokens)$ | 264.15 | 245.50 | 374.55 | 138.47 |
| $\mu_M(knownw)$ | 48.29 | 51.34 | 66.22 | 36.02 |
| $\sigma_M(knownw)$ | 57.71 | 58.18 | 77.58 | 34.88 |
| $\mu_M(stopw)$ | 42.78 | 41.57 | 57.86 | 33.26 |
| $\sigma_M(stopw)$ | 47.13 | 38.80 | 62.87 | 31.85 |
| $\mu_M(puncts)$ | 43.59 | 47.65 | 67.52 | 27.20 |
| $\sigma_M(puncts)$ | 103.20 | 92.43 | 150.25 | 52.26 |
| $\mu_M(chars)$ | 777.34 | 806.06 | 1123.88 | 546.63 |
| $\sigma_M(chars)$ | 1226.60 | 1039.90 | 1807.09 | 568.07 |

TABLE S79. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 987 | 128 | 315 | 544 |
| $msgs_\%$ | 100.00 | 12.97 | 31.91 | 55.12 |
| $\mu_M(sents)$ | 4.70 | 5.49 | 3.96 | 4.93 |
| $\sigma_M(sents)$ | 4.56 | 5.58 | 3.14 | 4.91 |
| $\mu_M(tokens)$ | 135.20 | 263.37 | 98.49 | 126.29 |
| $\sigma_M(tokens)$ | 274.84 | 622.60 | 130.08 | 176.98 |
| $\mu_M(knownw)$ | 38.96 | 58.70 | 30.24 | 39.37 |
| $\sigma_M(knownw)$ | 55.82 | 99.18 | 30.62 | 51.57 |
| $\mu_M(stopw)$ | 32.75 | 34.80 | 27.50 | 35.31 |
| $\sigma_M(stopw)$ | 37.40 | 50.55 | 27.99 | 38.20 |
| $\mu_M(puncts)$ | 34.85 | 82.50 | 19.91 | 32.28 |
| $\sigma_M(puncts)$ | 108.12 | 258.67 | 37.96 | 62.93 |
| $\mu_M(chars)$ | 577.08 | 1109.51 | 452.24 | 524.09 |
| $\sigma_M(chars)$ | 1072.10 | 2365.00 | 638.17 | 674.52 |

TABLE S82. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 848 | 496 | 90 | 262 |
| $msgs_\%$ | 100.00 | 58.49 | 10.61 | 30.90 |
| $\mu_M(sents)$ | 7.27 | 8.16 | 5.99 | 6.04 |
| $\sigma_M(sents)$ | 8.59 | 10.48 | 4.54 | 4.49 |
| $\mu_M(tokens)$ | 272.62 | 342.71 | 273.70 | 139.55 |
| $\sigma_M(tokens)$ | 504.82 | 625.09 | 360.33 | 116.20 |
| $\mu_M(knownw)$ | 76.78 | 97.46 | 73.24 | 38.85 |
| $\sigma_M(knownw)$ | 112.68 | 136.28 | 89.23 | 30.78 |
| $\mu_M(stopw)$ | 47.10 | 56.12 | 36.19 | 33.78 |
| $\sigma_M(stopw)$ | 63.93 | 78.85 | 30.25 | 27.77 |
| $\mu_M(puncts)$ | 76.32 | 95.30 | 96.40 | 33.50 |
| $\sigma_M(puncts)$ | 210.38 | 262.51 | 157.44 | 40.44 |
| $\mu_M(chars)$ | 1132.79 | 1405.79 | 1113.91 | 622.46 |
| $\sigma_M(chars)$ | 1748.97 | 2128.22 | 1411.94 | 489.36 |

TABLE S80. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 997 | 373 | 340 | 284 |
| $msgs_\%$ | 100.00 | 37.41 | 34.10 | 28.49 |
| $\mu_M(sents)$ | 5.90 | 6.31 | 6.76 | 4.34 |
| $\sigma_M(sents)$ | 5.83 | 5.27 | 7.24 | 4.06 |
| $\mu_M(tokens)$ | 164.57 | 161.23 | 183.99 | 145.71 |
| $\sigma_M(tokens)$ | 206.67 | 207.77 | 250.58 | 131.36 |
| $\mu_M(knownw)$ | 48.33 | 44.41 | 54.13 | 46.53 |
| $\sigma_M(knownw)$ | 54.25 | 45.15 | 67.74 | 45.82 |
| $\mu_M(stopw)$ | 45.54 | 39.53 | 47.90 | 50.60 |
| $\sigma_M(stopw)$ | 50.37 | 39.98 | 60.71 | 48.12 |
| $\mu_M(puncts)$ | 34.68 | 34.36 | 40.52 | 28.12 |
| $\sigma_M(puncts)$ | 54.17 | 53.39 | 69.72 | 25.61 |
| $\mu_M(chars)$ | 725.53 | 707.30 | 806.14 | 652.95 |
| $\sigma_M(chars)$ | 879.39 | 852.82 | 1075.45 | 601.20 |

TABLE S83. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 998 | 121 | 467 | 410 |
| $msgs_\%$ | 100.00 | 12.12 | 46.79 | 41.08 |
| $\mu_M(sents)$ | 4.17 | 4.60 | 4.42 | 3.74 |
| $\sigma_M(sents)$ | 3.36 | 4.57 | 3.25 | 3.01 |
| $\mu_M(tokens)$ | 92.14 | 116.83 | 92.97 | 83.91 |
| $\sigma_M(tokens)$ | 100.80 | 150.09 | 96.14 | 85.49 |
| $\mu_M(knownw)$ | 14.82 | 17.85 | 14.56 | 14.22 |
| $\sigma_M(knownw)$ | 18.18 | 26.13 | 15.96 | 17.60 |
| $\mu_M(stopw)$ | 5.30 | 6.31 | 5.02 | 5.32 |
| $\sigma_M(stopw)$ | 6.69 | 7.94 | 6.15 | 6.84 |
| $\mu_M(puncts)$ | 26.82 | 34.69 | 27.21 | 24.05 |
| $\sigma_M(puncts)$ | 32.43 | 49.03 | 31.90 | 25.81 |
| $\mu_M(chars)$ | 439.89 | 538.64 | 441.75 | 408.62 |
| $\sigma_M(chars)$ | 420.57 | 607.79 | 386.04 | 384.61 |

TABLE S81. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 1000 | 171 | 484 | 345 |
| $msgs_\%$ | 100.00 | 17.10 | 48.40 | 34.50 |
| $\mu_M(sents)$ | 5.78 | 5.35 | 6.55 | 4.91 |
| $\sigma_M(sents)$ | 7.20 | 6.39 | 8.92 | 4.10 |
| $\mu_M(tokens)$ | 131.68 | 129.29 | 154.06 | 101.47 |
| $\sigma_M(tokens)$ | 214.57 | 201.99 | 269.93 | 96.95 |
| $\mu_M(knownw)$ | 40.01 | 39.77 | 46.53 | 30.97 |
| $\sigma_M(knownw)$ | 67.19 | 67.00 | 83.26 | 31.52 |
| $\mu_M(stopw)$ | 37.80 | 32.75 | 45.12 | 30.04 |
| $\sigma_M(stopw)$ | 64.94 | 53.21 | 83.32 | 30.50 |
| $\mu_M(puncts)$ | 27.17 | 28.26 | 30.99 | 21.28 |
| $\sigma_M(puncts)$ | 47.56 | 47.81 | 58.95 | 22.18 |
| $\mu_M(chars)$ | 622.09 | 618.25 | 739.37 | 459.46 |
| $\sigma_M(chars)$ | 1054.80 | 1022.33 | 1322.30 | 456.30 |

TABLE S84. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 1000 | 99 | 337 | 564 |
| $msgs_\%$ | 100.00 | 9.90 | 33.70 | 56.40 |
| $\mu_M(sents)$ | 14.09 | 9.26 | 21.39 | 10.57 |
| $\sigma_M(sents)$ | 16.37 | 9.35 | 22.72 | 10.15 |
| $\mu_M(tokens)$ | 325.77 | 197.90 | 542.84 | 218.51 |
| $\sigma_M(tokens)$ | 422.68 | 197.20 | 607.01 | 217.38 |
| $\mu_M(knownw)$ | 102.78 | 60.42 | 163.11 | 74.17 |
| $\sigma_M(knownw)$ | 128.42 | 58.85 | 181.29 | 75.41 |
| $\mu_M(stopw)$ | 113.05 | 62.70 | 177.92 | 83.13 |
| $\sigma_M(stopw)$ | 141.87 | 64.40 | 199.76 | 85.21 |
| $\mu_M(puncts)$ | 48.74 | 35.38 | 85.54 | 29.09 |
| $\sigma_M(puncts)$ | 65.60 | 37.92 | 92.24 | 32.68 |
| $\mu_M(chars)$ | 1539.83 | 952.44 | 2527.69 | 1052.66 |
| $\sigma_M(chars)$ | 1981.30 | 946.94 | 2831.64 | 1063.39 |

TABLE S85. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 995 | 190 | 639 | 166 |
| $msgs_\%$ | 100.00 | 19.10 | 64.22 | 16.68 |
| $\mu_M(sents)$ | 7.83 | 10.26 | 7.60 | 5.92 |
| $\sigma_M(sents)$ | 6.99 | 8.86 | 6.60 | 4.97 |
| $\mu_M(tokens)$ | 200.16 | 293.52 | 190.02 | 132.33 |
| $\sigma_M(tokens)$ | 233.62 | 359.51 | 195.06 | 133.31 |
| $\mu_M(knownw)$ | 57.52 | 80.52 | 54.64 | 42.25 |
| $\sigma_M(knownw)$ | 63.04 | 95.41 | 53.36 | 39.68 |
| $\mu_M(stopw)$ | 51.97 | 64.96 | 50.62 | 42.30 |
| $\sigma_M(stopw)$ | 51.67 | 65.12 | 48.83 | 40.97 |
| $\mu_M(puncts)$ | 39.91 | 59.69 | 38.58 | 22.42 |
| $\sigma_M(puncts)$ | 64.02 | 115.26 | 46.13 | 20.18 |
| $\mu_M(chars)$ | 902.93 | 1317.38 | 856.96 | 605.54 |
| $\sigma_M(chars)$ | 1004.60 | 1459.03 | 860.78 | 683.61 |

TABLE S88. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 995 | 246 | 481 | 268 |
| $msgs_\%$ | 100.00 | 24.72 | 48.34 | 26.93 |
| $\mu_M(sents)$ | 7.88 | 6.31 | 8.19 | 8.77 |
| $\sigma_M(sents)$ | 8.56 | 4.80 | 10.04 | 8.17 |
| $\mu_M(tokens)$ | 231.31 | 203.93 | 246.73 | 228.79 |
| $\sigma_M(tokens)$ | 342.52 | 322.50 | 394.25 | 244.98 |
| $\mu_M(knownw)$ | 70.23 | 59.91 | 75.62 | 70.03 |
| $\sigma_M(knownw)$ | 94.74 | 77.28 | 111.29 | 73.91 |
| $\mu_M(stopw)$ | 51.24 | 43.96 | 54.03 | 52.89 |
| $\sigma_M(stopw)$ | 58.82 | 35.17 | 68.91 | 55.85 |
| $\mu_M(puncts)$ | 62.31 | 56.19 | 68.41 | 56.97 |
| $\sigma_M(puncts)$ | 144.45 | 139.69 | 171.74 | 80.59 |
| $\mu_M(chars)$ | 1091.36 | 910.45 | 1176.93 | 1103.85 |
| $\sigma_M(chars)$ | 1511.77 | 1232.84 | 1758.14 | 1224.29 |

TABLE S86. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 970 | 142 | 381 | 447 |
| $msgs_\%$ | 100.00 | 14.64 | 39.28 | 46.08 |
| $\mu_M(sents)$ | 7.48 | 10.82 | 6.82 | 6.97 |
| $\sigma_M(sents)$ | 12.86 | 20.48 | 5.30 | 14.05 |
| $\mu_M(tokens)$ | 239.09 | 533.75 | 217.79 | 163.65 |
| $\sigma_M(tokens)$ | 500.31 | 1021.12 | 288.34 | 327.74 |
| $\mu_M(knownw)$ | 68.18 | 149.68 | 62.45 | 47.18 |
| $\sigma_M(knownw)$ | 145.82 | 315.73 | 82.84 | 77.74 |
| $\mu_M(stopw)$ | 46.18 | 71.75 | 44.36 | 39.60 |
| $\sigma_M(stopw)$ | 69.81 | 134.44 | 41.53 | 55.76 |
| $\mu_M(puncts)$ | 71.92 | 181.29 | 64.26 | 43.70 |
| $\sigma_M(puncts)$ | 204.52 | 428.20 | 124.45 | 121.15 |
| $\mu_M(chars)$ | 999.15 | 2129.11 | 913.90 | 712.85 |
| $\sigma_M(chars)$ | 1904.00 | 3769.90 | 1033.08 | 1395.90 |

TABLE S89. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 960 | 402 | 68 | 490 |
| $msgs_\%$ | 100.00 | 41.88 | 7.08 | 51.04 |
| $\mu_M(sents)$ | 7.04 | 7.03 | 5.43 | 7.28 |
| $\sigma_M(sents)$ | 9.94 | 8.07 | 5.16 | 11.67 |
| $\mu_M(tokens)$ | 233.62 | 338.31 | 151.68 | 159.09 |
| $\sigma_M(tokens)$ | 441.81 | 582.91 | 175.60 | 289.66 |
| $\mu_M(knownw)$ | 50.82 | 49.35 | 40.71 | 53.43 |
| $\sigma_M(knownw)$ | 87.75 | 80.13 | 46.79 | 97.43 |
| $\mu_M(stopw)$ | 43.05 | 36.23 | 32.32 | 50.13 |
| $\sigma_M(stopw)$ | 76.87 | 49.45 | 41.79 | 96.04 |
| $\mu_M(puncts)$ | 49.20 | 72.18 | 42.87 | 31.21 |
| $\sigma_M(puncts)$ | 110.62 | 152.16 | 62.51 | 60.61 |
| $\mu_M(chars)$ | 1175.54 | 1775.50 | 699.03 | 749.44 |
| $\sigma_M(chars)$ | 1736.65 | 2037.58 | 814.73 | 1379.21 |

TABLE S87. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 1000 | 109 | 318 | 573 |
| $msgs_\%$ | 100.00 | 10.90 | 31.80 | 57.30 |
| $\mu_M(sents)$ | 4.32 | 5.10 | 4.75 | 3.93 |
| $\sigma_M(sents)$ | 4.46 | 5.05 | 5.01 | 3.94 |
| $\mu_M(tokens)$ | 151.53 | 154.29 | 187.84 | 130.86 |
| $\sigma_M(tokens)$ | 299.60 | 323.47 | 361.27 | 251.31 |
| $\mu_M(knownw)$ | 38.82 | 39.06 | 46.74 | 34.38 |
| $\sigma_M(knownw)$ | 58.92 | 55.27 | 75.26 | 47.75 |
| $\mu_M(stopw)$ | 28.52 | 28.23 | 33.64 | 25.74 |
| $\sigma_M(stopw)$ | 30.87 | 22.48 | 39.72 | 25.87 |
| $\mu_M(puncts)$ | 44.81 | 44.77 | 56.50 | 38.33 |
| $\sigma_M(puncts)$ | 123.69 | 144.09 | 135.01 | 111.88 |
| $\mu_M(chars)$ | 628.93 | 644.19 | 772.97 | 546.08 |
| $\sigma_M(chars)$ | 1142.63 | 1136.70 | 1424.91 | 942.09 |

TABLE S90. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 996 | 91 | 259 | 646 |
| $msgs_\%$ | 100.00 | 9.14 | 26.00 | 64.86 |
| $\mu_M(sents)$ | 7.83 | 5.86 | 7.29 | 8.33 |
| $\sigma_M(sents)$ | 8.20 | 5.55 | 7.99 | 8.53 |
| $\mu_M(tokens)$ | 205.31 | 276.57 | 190.04 | 201.39 |
| $\sigma_M(tokens)$ | 271.08 | 413.07 | 248.48 | 252.35 |
| $\mu_M(knownw)$ | 63.08 | 79.02 | 56.02 | 63.67 |
| $\sigma_M(knownw)$ | 79.93 | 107.75 | 71.93 | 78.00 |
| $\mu_M(stopw)$ | 60.74 | 46.00 | 53.12 | 65.87 |
| $\sigma_M(stopw)$ | 72.63 | 49.37 | 68.03 | 76.51 |
| $\mu_M(puncts)$ | 43.20 | 89.12 | 40.15 | 37.95 |
| $\sigma_M(puncts)$ | 87.55 | 192.34 | 66.22 | 67.24 |
| $\mu_M(chars)$ | 924.07 | 1089.49 | 872.41 | 921.48 |
| $\sigma_M(chars)$ | 1165.79 | 1382.27 | 1173.69 | 1126.51 |

TABLE S91. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 999 | 119 | 299 | 581 |
| $msgs_\%$ | 100.00 | 11.91 | 29.93 | 58.16 |
| $\mu_M(sents)$ | 5.33 | 4.92 | 3.89 | 6.16 |
| $\sigma_M(sents)$ | 6.04 | 6.77 | 3.46 | 6.73 |
| $\mu_M(tokens)$ | 117.63 | 184.12 | 86.10 | 120.23 |
| $\sigma_M(tokens)$ | 199.33 | 450.51 | 83.32 | 147.48 |
| $\mu_M(knownw)$ | 36.12 | 47.47 | 25.84 | 39.08 |
| $\sigma_M(knownw)$ | 55.92 | 110.52 | 26.68 | 49.18 |
| $\mu_M(stopw)$ | 36.89 | 35.31 | 24.87 | 43.41 |
| $\sigma_M(stopw)$ | 50.33 | 62.86 | 28.15 | 54.96 |
| $\mu_M(puncts)$ | 24.35 | 59.23 | 18.83 | 20.04 |
| $\sigma_M(puncts)$ | 75.30 | 203.57 | 20.36 | 27.66 |
| $\mu_M(chars)$ | 512.61 | 747.73 | 375.55 | 534.98 |
| $\sigma_M(chars)$ | 797.73 | 1653.93 | 370.41 | 664.71 |

TABLE S92. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

## 2. Snapshots of 2000 messages

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 2000 | 186 | 822 | 992 |
| $msgs_\%$ | 100.00 | 9.30 | 41.10 | 49.60 |
| $\mu_M(sents)$ | 5.11 | 5.72 | 5.49 | 4.68 |
| $\sigma_M(sents)$ | 9.33 | 8.99 | 12.92 | 4.67 |
| $\mu_M(tokens)$ | 125.53 | 133.51 | 131.60 | 119.00 |
| $\sigma_M(tokens)$ | 259.49 | 288.74 | 357.60 | 118.63 |
| $\mu_M(knownw)$ | 40.26 | 41.17 | 42.06 | 38.60 |
| $\sigma_M(knownw)$ | 72.41 | 84.93 | 95.40 | 40.89 |
| $\mu_M(stopw)$ | 37.90 | 35.41 | 38.91 | 37.53 |
| $\sigma_M(stopw)$ | 54.68 | 52.86 | 66.73 | 42.58 |
| $\mu_M(puncts)$ | 27.86 | 32.71 | 29.56 | 25.55 |
| $\sigma_M(puncts)$ | 95.60 | 111.25 | 136.53 | 25.47 |
| $\mu_M(chars)$ | 571.03 | 612.19 | 603.15 | 536.70 |
| $\sigma_M(chars)$ | 1233.47 | 1381.41 | 1703.99 | 548.91 |

TABLE S93. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 1978 | 277 | 956 | 745 |
| $msgs_\%$ | 100.00 | 14.00 | 48.33 | 37.66 |
| $\mu_M(sents)$ | 6.19 | 6.06 | 6.26 | 6.16 |
| $\sigma_M(sents)$ | 3.49 | 3.81 | 3.84 | 2.84 |
| $\mu_M(tokens)$ | 121.82 | 113.81 | 126.51 | 118.78 |
| $\sigma_M(tokens)$ | 117.10 | 73.74 | 108.11 | 139.03 |
| $\mu_M(knownw)$ | 24.84 | 23.62 | 26.00 | 23.80 |
| $\sigma_M(knownw)$ | 17.94 | 14.60 | 19.70 | 16.56 |
| $\mu_M(stopw)$ | 8.29 | 7.40 | 8.71 | 8.08 |
| $\sigma_M(stopw)$ | 5.27 | 4.75 | 5.88 | 4.53 |
| $\mu_M(puncts)$ | 36.07 | 33.27 | 36.43 | 36.65 |
| $\sigma_M(puncts)$ | 41.09 | 23.54 | 36.87 | 50.29 |
| $\mu_M(chars)$ | 550.26 | 520.45 | 572.39 | 532.94 |
| $\sigma_M(chars)$ | 502.46 | 340.76 | 477.30 | 577.53 |

TABLE S94. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

| | g. | p. | i. | h. |
|---|---|---|---|---|
| $msgs$ | 2000 | 274 | 636 | 1090 |
| $msgs_\%$ | 100.00 | 13.70 | 31.80 | 54.50 |
| $\mu_M(sents)$ | 7.09 | 7.94 | 7.59 | 6.58 |
| $\sigma_M(sents)$ | 5.62 | 5.93 | 5.68 | 5.45 |
| $\mu_M(tokens)$ | 152.26 | 178.49 | 180.37 | 129.27 |
| $\sigma_M(tokens)$ | 252.69 | 209.23 | 253.03 | 260.06 |
| $\mu_M(knownw)$ | 43.16 | 50.64 | 49.62 | 37.50 |
| $\sigma_M(knownw)$ | 47.08 | 52.97 | 48.49 | 43.82 |
| $\mu_M(stopw)$ | 36.54 | 42.61 | 41.86 | 31.90 |
| $\sigma_M(stopw)$ | 35.99 | 40.73 | 36.45 | 33.72 |
| $\mu_M(puncts)$ | 36.37 | 43.04 | 45.64 | 29.29 |
| $\sigma_M(puncts)$ | 93.56 | 77.23 | 107.27 | 87.95 |
| $\mu_M(chars)$ | 656.35 | 772.59 | 765.20 | 563.62 |
| $\sigma_M(chars)$ | 886.58 | 854.25 | 928.82 | 858.20 |

TABLE S95. Messages sizes in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

## F. POS tags

### 1. Snapshots of 1000 messages

| | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 25.93 | 26.17 | 26.79 | 25.37 |
| X | 0.11 | 0.15 | 0.14 | 0.08 |
| ADP | 12.13 | 12.10 | 11.42 | 12.56 |
| DET | 11.87 | 11.83 | 11.65 | 12.01 |
| VERB | 21.95 | 22.21 | 21.96 | 21.89 |
| ADJ | 5.76 | 5.53 | 5.76 | 5.81 |
| ADV | 7.46 | 6.89 | 7.24 | 7.71 |
| PRT | 3.97 | 4.40 | 3.95 | 3.89 |
| PRON | 6.91 | 6.95 | 7.27 | 6.69 |
| NUM | 0.58 | 0.58 | 0.65 | 0.55 |
| CONJ | 3.32 | 3.19 | 3.18 | 3.43 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S96. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 0

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 66.26 | 68.10 | 68.43 | 64.30 |
| X      | 0.22  | 0.23  | 0.25  | 0.19  |
| ADP    | 10.92 | 8.85  | 11.09 | 11.52 |
| DET    | 4.89  | 4.07  | 4.72  | 5.28  |
| VERB   | 8.61  | 8.90  | 7.76  | 9.03  |
| ADJ    | 2.28  | 3.19  | 1.87  | 2.22  |
| ADV    | 0.77  | 0.95  | 0.43  | 0.92  |
| PRT    | 3.93  | 3.38  | 3.95  | 4.10  |
| PRON   | 0.68  | 0.58  | 0.37  | 0.91  |
| NUM    | 1.13  | 1.43  | 0.91  | 1.15  |
| CONJ   | 0.32  | 0.31  | 0.22  | 0.38  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S97. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 2

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 36.80 | 38.78 | 37.06 | 28.71 |
| X      | 0.12  | 0.13  | 0.16  | 0.06  |
| ADP    | 9.40  | 8.90  | 9.29  | 11.49 |
| DET    | 9.40  | 9.22  | 8.41  | 10.61 |
| VERB   | 20.44 | 19.91 | 19.61 | 22.99 |
| ADJ    | 6.53  | 6.61  | 6.61  | 6.19  |
| ADV    | 5.40  | 5.45  | 4.04  | 5.91  |
| PRT    | 2.60  | 2.34  | 2.59  | 3.63  |
| PRON   | 5.70  | 5.27  | 6.82  | 6.85  |
| NUM    | 1.17  | 0.91  | 3.36  | 1.10  |
| CONJ   | 2.44  | 2.48  | 2.05  | 2.46  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S99. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 6

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 30.58 | 31.88 | 30.73 | 30.03 |
| X      | 0.13  | 0.13  | 0.17  | 0.08  |
| ADP    | 11.89 | 11.48 | 12.20 | 11.63 |
| DET    | 11.22 | 10.32 | 10.43 | 12.39 |
| VERB   | 21.54 | 21.47 | 21.43 | 21.69 |
| ADJ    | 5.76  | 5.79  | 5.67  | 5.85  |
| ADV    | 6.36  | 6.00  | 6.49  | 6.32  |
| PRT    | 3.76  | 3.89  | 3.60  | 3.91  |
| PRON   | 5.77  | 5.81  | 5.96  | 5.54  |
| NUM    | 0.80  | 0.83  | 0.81  | 0.78  |
| CONJ   | 2.20  | 2.39  | 2.51  | 1.78  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S98. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 3

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 56.41 | 54.30 | 58.05 | 55.29 |
| X      | 2.83  | 2.74  | 2.65  | 3.08  |
| ADP    | 2.94  | 3.00  | 2.44  | 3.52  |
| DET    | 14.58 | 12.50 | 14.72 | 15.24 |
| VERB   | 9.65  | 12.30 | 8.99  | 9.38  |
| ADJ    | 7.82  | 7.93  | 7.93  | 7.64  |
| ADV    | 1.33  | 2.10  | 1.15  | 1.24  |
| PRT    | 1.81  | 1.92  | 1.59  | 2.04  |
| PRON   | 1.06  | 0.58  | 1.08  | 1.23  |
| NUM    | 1.30  | 2.19  | 1.15  | 1.12  |
| CONJ   | 0.27  | 0.44  | 0.24  | 0.22  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S100. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 7

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 29.47 | 50.14 | 25.23 | 23.74 |
| X      | 0.22  | 0.77  | 0.11  | 0.06  |
| ADP    | 11.36 | 8.17  | 12.04 | 12.24 |
| DET    | 10.26 | 8.06  | 11.50 | 10.51 |
| VERB   | 21.12 | 14.58 | 22.56 | 22.90 |
| ADJ    | 5.57  | 5.45  | 5.39  | 5.70  |
| ADV    | 7.91  | 3.27  | 8.36  | 9.43  |
| PRT    | 3.64  | 2.54  | 4.10  | 3.85  |
| PRON   | 6.54  | 4.33  | 6.66  | 7.30  |
| NUM    | 1.26  | 0.85  | 1.15  | 1.46  |
| CONJ   | 2.64  | 1.85  | 2.89  | 2.81  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S101. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 8

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 27.23 | 31.28 | 27.43 | 24.40 |
| X      | 0.45  | 0.57  | 0.43  | 0.40  |
| ADP    | 12.51 | 12.04 | 12.89 | 12.00 |
| DET    | 11.52 | 10.67 | 12.02 | 10.99 |
| VERB   | 21.56 | 20.18 | 20.85 | 23.88 |
| ADJ    | 6.93  | 7.45  | 6.92  | 6.64  |
| ADV    | 6.23  | 5.32  | 6.22  | 6.80  |
| PRT    | 3.79  | 3.21  | 3.75  | 4.24  |
| PRON   | 6.32  | 5.50  | 6.04  | 7.38  |
| NUM    | 0.55  | 0.44  | 0.58  | 0.54  |
| CONJ   | 2.91  | 3.32  | 2.86  | 2.75  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S103. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 10

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 29.04 | 31.04 | 29.93 | 25.39 |
| X      | 0.17  | 0.22  | 0.16  | 0.13  |
| ADP    | 11.97 | 11.09 | 11.46 | 13.74 |
| DET    | 11.52 | 11.09 | 11.46 | 12.12 |
| VERB   | 21.76 | 21.54 | 21.36 | 22.58 |
| ADJ    | 5.64  | 5.64  | 6.01  | 5.14  |
| ADV    | 6.13  | 5.40  | 6.18  | 6.97  |
| PRT    | 3.74  | 3.70  | 3.87  | 3.61  |
| PRON   | 6.22  | 6.18  | 6.04  | 6.50  |
| NUM    | 0.66  | 0.72  | 0.60  | 0.68  |
| CONJ   | 3.14  | 3.38  | 2.94  | 3.12  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S102. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 9

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| NOUN   | 26.68 | 27.95 | 28.60 | 23.87 |
| X      | 0.30  | 0.33  | 0.30  | 0.29  |
| ADP    | 14.64 | 14.17 | 15.05 | 14.15 |
| DET    | 13.35 | 13.13 | 13.24 | 13.52 |
| VERB   | 18.52 | 18.71 | 17.58 | 19.77 |
| ADJ    | 7.60  | 7.57  | 7.73  | 7.42  |
| ADV    | 6.95  | 6.68  | 6.43  | 7.69  |
| PRT    | 2.97  | 2.52  | 2.82  | 3.23  |
| PRON   | 5.30  | 4.83  | 4.35  | 6.67  |
| NUM    | 0.75  | 0.83  | 0.83  | 0.63  |
| CONJ   | 2.95  | 3.29  | 3.06  | 2.76  |
| PUNC   | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S104. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 11

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| NOUN  | 35.49 | 36.23 | 35.21 | 35.46 |
| X     | 0.15  | 0.18  | 0.16  | 0.12  |
| ADP   | 10.86 | 10.76 | 10.98 | 10.72 |
| DET   | 11.01 | 11.57 | 10.73 | 11.08 |
| VERB  | 21.22 | 20.37 | 21.07 | 22.16 |
| ADJ   | 5.36  | 5.14  | 5.52  | 5.26  |
| ADV   | 4.79  | 4.77  | 4.79  | 4.78  |
| PRT   | 3.35  | 3.18  | 3.38  | 3.42  |
| PRON  | 4.84  | 4.58  | 5.15  | 4.45  |
| NUM   | 0.55  | 0.81  | 0.51  | 0.44  |
| CONJ  | 2.38  | 2.44  | 2.50  | 2.12  |
| PUNC  | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S105. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 12

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| NOUN  | 31.95 | 38.91 | 29.86 | 26.68 |
| X     | 0.15  | 0.35  | 0.08  | 0.06  |
| ADP   | 11.47 | 10.42 | 11.67 | 12.83 |
| DET   | 11.56 | 10.71 | 11.81 | 12.29 |
| VERB  | 21.13 | 18.82 | 21.99 | 22.04 |
| ADJ   | 4.89  | 4.55  | 4.97  | 5.25  |
| ADV   | 5.39  | 4.26  | 5.57  | 7.07  |
| PRT   | 3.83  | 3.43  | 3.99  | 3.92  |
| PRON  | 5.85  | 5.10  | 6.10  | 6.28  |
| NUM   | 1.00  | 0.85  | 1.08  | 0.88  |
| CONJ  | 2.78  | 2.60  | 2.88  | 2.71  |
| PUNC  | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S107. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 15

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| NOUN  | 34.47 | 47.44 | 29.78 | 24.21 |
| X     | 0.41  | 0.72  | 0.09  | 0.19  |
| ADP   | 11.11 | 9.60  | 11.44 | 12.33 |
| DET   | 11.02 | 10.30 | 10.64 | 11.66 |
| VERB  | 18.35 | 12.49 | 22.55 | 22.79 |
| ADJ   | 5.82  | 5.44  | 5.96  | 6.12  |
| ADV   | 6.40  | 3.71  | 6.27  | 8.64  |
| PRT   | 3.07  | 2.53  | 3.32  | 3.50  |
| PRON  | 5.68  | 4.11  | 6.44  | 6.91  |
| NUM   | 0.80  | 0.93  | 0.96  | 0.67  |
| CONJ  | 2.86  | 2.74  | 2.55  | 2.99  |
| PUNC  | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S106. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 13

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| NOUN  | 36.14 | 49.77 | 32.27 | 28.41 |
| X     | 0.63  | 0.94  | 0.67  | 0.33  |
| ADP   | 10.52 | 8.21  | 10.97 | 12.05 |
| DET   | 9.62  | 7.84  | 9.88  | 10.89 |
| VERB  | 20.13 | 15.75 | 21.14 | 22.88 |
| ADJ   | 4.93  | 4.09  | 5.17  | 5.40  |
| ADV   | 6.15  | 3.75  | 6.76  | 7.60  |
| PRT   | 3.36  | 2.51  | 3.95  | 3.46  |
| PRON  | 5.08  | 3.99  | 5.72  | 5.34  |
| NUM   | 1.04  | 1.11  | 1.02  | 1.01  |
| CONJ  | 2.38  | 2.04  | 2.43  | 2.63  |
| PUNC  | 0.00  | 0.00  | 0.00  | 0.00  |

TABLE S108. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 34.67 | 36.42 | 35.74 | 33.45 |
| X | 0.11 | 0.14 | 0.10 | 0.11 |
| ADP | 10.41 | 10.59 | 10.06 | 10.64 |
| DET | 9.52 | 8.75 | 9.37 | 9.81 |
| VERB | 21.88 | 21.08 | 22.02 | 21.95 |
| ADJ | 5.79 | 5.33 | 5.84 | 5.85 |
| ADV | 5.71 | 5.17 | 5.61 | 5.90 |
| PRT | 3.18 | 3.26 | 3.17 | 3.17 |
| PRON | 5.32 | 5.56 | 4.89 | 5.59 |
| NUM | 0.95 | 1.01 | 0.73 | 1.11 |
| CONJ | 2.46 | 2.68 | 2.45 | 2.42 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S109. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 17

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 23.66 | 37.11 | 24.27 | 20.55 |
| X | 0.07 | 0.13 | 0.13 | 0.04 |
| ADP | 12.04 | 10.88 | 11.91 | 12.33 |
| DET | 11.37 | 8.68 | 11.05 | 12.06 |
| VERB | 23.69 | 19.74 | 23.75 | 24.52 |
| ADJ | 6.00 | 5.72 | 6.12 | 6.02 |
| ADV | 7.52 | 5.25 | 7.18 | 8.12 |
| PRT | 4.04 | 3.19 | 3.73 | 4.33 |
| PRON | 7.88 | 5.48 | 8.08 | 8.34 |
| NUM | 0.73 | 1.02 | 0.64 | 0.70 |
| CONJ | 2.99 | 2.80 | 3.14 | 2.98 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S111. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 19

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 26.72 | 42.93 | 28.29 | 23.87 |
| X | 0.21 | 0.16 | 0.39 | 0.16 |
| ADP | 11.91 | 8.94 | 11.60 | 12.44 |
| DET | 11.99 | 9.29 | 11.25 | 12.63 |
| VERB | 21.60 | 17.03 | 21.59 | 22.25 |
| ADJ | 6.31 | 6.37 | 6.25 | 6.33 |
| ADV | 7.49 | 5.11 | 7.32 | 7.89 |
| PRT | 3.86 | 2.57 | 3.70 | 4.10 |
| PRON | 6.08 | 4.30 | 5.87 | 6.41 |
| NUM | 0.84 | 1.01 | 0.81 | 0.82 |
| CONJ | 2.98 | 2.30 | 2.91 | 3.10 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S110. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 18

## 2. Snapshots of 2000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 26.96 | 28.91 | 27.05 | 26.50 |
| X | 0.11 | 0.12 | 0.05 | 0.16 |
| ADP | 11.76 | 10.71 | 11.31 | 12.36 |
| DET | 12.02 | 11.94 | 11.88 | 12.17 |
| VERB | 22.08 | 22.46 | 22.47 | 21.65 |
| ADJ | 5.77 | 6.31 | 5.90 | 5.54 |
| ADV | 7.14 | 6.47 | 6.82 | 7.56 |
| PRT | 4.03 | 3.60 | 4.23 | 3.95 |
| PRON | 6.45 | 6.06 | 6.67 | 6.34 |
| NUM | 0.61 | 0.53 | 0.64 | 0.60 |
| CONJ | 3.06 | 2.90 | 2.97 | 3.17 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S112. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 67.69 | 69.78 | 67.72 | 66.86 |
| X | 0.28 | 0.35 | 0.26 | 0.28 |
| ADP | 10.99 | 10.54 | 10.39 | 11.99 |
| DET | 4.79 | 4.27 | 4.78 | 5.00 |
| VERB | 7.63 | 7.53 | 7.71 | 7.57 |
| ADJ | 1.99 | 1.60 | 2.10 | 1.99 |
| ADV | 0.69 | 0.53 | 0.74 | 0.67 |
| PRT | 3.86 | 3.35 | 3.98 | 3.89 |
| PRON | 0.65 | 0.57 | 0.67 | 0.66 |
| NUM | 1.22 | 1.28 | 1.40 | 0.93 |
| CONJ | 0.21 | 0.18 | 0.25 | 0.16 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S113. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 2

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| NOUN | 29.79 | 30.12 | 29.88 | 29.61 |
| X | 0.12 | 0.12 | 0.21 | 0.05 |
| ADP | 11.19 | 11.39 | 11.29 | 11.04 |
| DET | 10.92 | 10.48 | 10.19 | 11.62 |
| VERB | 21.65 | 21.34 | 21.64 | 21.76 |
| ADJ | 6.91 | 6.79 | 6.37 | 7.36 |
| ADV | 6.55 | 6.01 | 6.73 | 6.59 |
| PRT | 3.76 | 3.69 | 3.70 | 3.84 |
| PRON | 5.91 | 6.33 | 6.52 | 5.30 |
| NUM | 0.52 | 0.58 | 0.53 | 0.49 |
| CONJ | 2.69 | 3.15 | 2.95 | 2.34 |
| PUNC | 0.00 | 0.00 | 0.00 | 0.00 |

TABLE S114. POS tags in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Universal POS tags[?] : VERB - verbs (all tenses and modes); NOUN - nouns (common and proper); PRON - pronouns; ADJ - adjectives; ADV - adverbs; ADP - adpositions (prepositions and postpositions); CONJ - conjunctions; DET - determiners; NUM - cardinal numbers; PRT - particles or other function words; X - other: foreign words, typos, abbreviations; PUNCT - punctuation. TAG: 3

## G. Wordnet synsets

### 1. Snapshots of 1000 messages

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 54.73 | 54.70 | 54.13 | 55.09 |
| ADJ | 11.33 | 10.98 | 11.14 | 11.51 |
| VERB | 6.34 | 6.03 | 5.92 | 6.65 |
| ADV | 27.61 | 28.29 | 28.81 | 26.75 |
| POS | 32.80 | 31.22 | 33.19 | 32.92 |
| POS! | 96.27 | 96.20 | 96.27 | 96.29 |

TABLE S115. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 0

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S116. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 0

| | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 72.61 | 73.70 | 71.38 | 73.10 |
| physical_entity.n.01 | 27.39 | 26.30 | 28.62 | 26.90 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S117. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

| | g. | p. | i. | h. |
|---|---|---|---|---|
| psychological_feature.n.01 | 21.89 | 24.04 | 21.55 | 21.64 |
| communication.n.02 | 20.47 | 20.39 | 19.81 | 20.88 |
| object.n.01 | 15.50 | 14.08 | 15.71 | 15.66 |
| measure.n.02 | 12.98 | 13.05 | 13.52 | 12.65 |
| attribute.n.02 | 7.24 | 6.62 | 6.28 | 7.93 |
| causal_agent.n.01 | 6.50 | 6.23 | 7.21 | 6.14 |
| group.n.01 | 6.41 | 6.62 | 6.77 | 6.15 |
| matter.n.03 | 4.39 | 5.36 | 4.63 | 4.05 |
| relation.n.01 | 3.60 | 2.98 | 3.46 | 3.81 |
| process.n.06 | 0.53 | 0.36 | 0.57 | 0.54 |
| thing.n.12 | 0.48 | 0.28 | 0.50 | 0.51 |
| set.n.02 | 0.02 | 0.00 | 0.00 | 0.03 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S118. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

| | g. | p. | i. | h. |
|---|---|---|---|---|
| cognition.n.01 | 15.36 | 16.39 | 14.56 | 15.61 |
| whole.n.02 | 13.18 | 12.36 | 13.64 | 13.07 |
| event.n.01 | 13.04 | 15.33 | 13.14 | 12.50 |
| definite_quantity.n.01 | 12.99 | 13.00 | 13.18 | 12.88 |
| message.n.02 | 11.91 | 10.50 | 11.24 | 12.59 |
| person.n.01 | 8.44 | 8.22 | 9.24 | 8.02 |
| location.n.01 | 5.87 | 5.09 | 5.97 | 5.96 |
| written_communication.n.01 | 4.78 | 4.14 | 4.20 | 5.26 |
| substance.n.01 | 4.41 | 5.78 | 5.07 | 3.75 |
| state.n.02 | 3.92 | 3.98 | 3.69 | 4.04 |
| collection.n.01 | 3.49 | 3.34 | 3.35 | 3.60 |
| part.n.01 | 2.62 | 1.86 | 2.71 | 2.72 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S119. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|      | g. | p. | i. | h. |
|------|------|------|------|------|
| N | 87.54 | 86.77 | 89.05 | 86.90 |
| ADJ | 3.25 | 4.25 | 2.68 | 3.24 |
| VERB | 0.33 | 0.26 | 0.17 | 0.45 |
| ADV | 8.88 | 8.72 | 8.11 | 9.41 |
| POS | 22.53 | 22.95 | 22.43 | 22.44 |
| POS! | 96.32 | 95.69 | 96.34 | 96.55 |

TABLE S120. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 2

|      | g. | p. | i. | h. |
|------|------|------|------|------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S121. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 2

|      | g. | p. | i. | h. |
|------|------|------|------|------|
| abstraction.n.06 | 64.40 | 63.62 | 62.39 | 65.94 |
| physical_entity.n.01 | 35.60 | 36.38 | 37.61 | 34.06 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S122. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|      | g. | p. | i. | h. |
|------|------|------|------|------|
| communication.n.02 | 25.52 | 20.61 | 26.92 | 26.41 |
| matter.n.03 | 17.08 | 18.58 | 17.92 | 16.00 |
| psychological_feature.n.01 | 16.36 | 13.39 | 16.75 | 17.18 |
| measure.n.02 | 11.85 | 14.92 | 8.72 | 12.69 |
| causal_agent.n.01 | 9.52 | 7.82 | 9.96 | 9.85 |
| object.n.01 | 8.59 | 9.40 | 9.39 | 7.80 |
| attribute.n.02 | 7.97 | 10.10 | 7.45 | 7.53 |
| relation.n.01 | 1.47 | 2.65 | 1.24 | 1.19 |
| group.n.01 | 1.24 | 1.95 | 1.31 | 0.94 |
| thing.n.12 | 0.22 | 0.30 | 0.20 | 0.20 |
| process.n.06 | 0.20 | 0.27 | 0.13 | 0.21 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S123. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|      | g. | p. | i. | h. |
|------|------|------|------|------|
| message.n.02 | 23.95 | 17.89 | 25.54 | 25.06 |
| substance.n.01 | 15.74 | 18.12 | 16.15 | 14.67 |
| definite_quantity.n.01 | 11.47 | 14.63 | 8.73 | 12.09 |
| event.n.01 | 11.00 | 9.94 | 11.31 | 11.17 |
| person.n.01 | 10.16 | 8.56 | 10.50 | 10.49 |
| whole.n.02 | 7.39 | 7.98 | 8.07 | 6.76 |
| cognition.n.01 | 6.67 | 5.04 | 6.64 | 7.26 |
| property.n.02 | 5.79 | 7.92 | 5.43 | 5.28 |
| substance.n.07 | 2.48 | 2.49 | 2.77 | 2.29 |
| state.n.02 | 2.24 | 2.38 | 2.11 | 2.28 |
| location.n.01 | 1.58 | 2.24 | 1.64 | 1.31 |
| signal.n.01 | 1.53 | 2.80 | 1.12 | 1.35 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S124. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|       | g. | p. | i. | h. |
|-------|-------|-------|-------|-------|
| N     | 59.89 | 60.11 | 61.10 | 58.31 |
| ADJ   | 10.45 | 10.20 | 10.29 | 10.73 |
| VERB  | 5.14  | 4.34  | 4.88  | 5.70  |
| ADV   | 24.53 | 25.35 | 23.72 | 25.27 |
| POS   | 33.31 | 33.40 | 32.09 | 34.93 |
| POS!  | 93.78 | 93.50 | 93.33 | 94.44 |

TABLE S125. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 3

|            | g. | p. | i. | h. |
|------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S126. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 3

|                      | g. | p. | i. | h. |
|----------------------|--------|--------|--------|--------|
| abstraction.n.06     | 67.98  | 66.54  | 68.94  | 67.20  |
| physical_entity.n.01 | 32.02  | 33.46  | 31.06  | 32.80  |
| **total**            | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S127. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|                              | g. | p. | i. | h. |
|------------------------------|--------|--------|--------|--------|
| measure.n.02                 | 19.35  | 18.06  | 22.53  | 15.62  |
| psychological_feature.n.01   | 19.18  | 17.31  | 17.58  | 21.87  |
| object.n.01                  | 19.12  | 20.33  | 19.00  | 18.88  |
| communication.n.02           | 16.42  | 18.50  | 16.52  | 15.62  |
| causal_agent.n.01            | 7.03   | 7.83   | 6.67   | 7.23   |
| attribute.n.02               | 6.84   | 6.45   | 6.35   | 7.60   |
| matter.n.03                  | 4.73   | 4.35   | 4.43   | 5.24   |
| relation.n.01                | 3.14   | 2.99   | 3.10   | 3.25   |
| group.n.01                   | 3.05   | 3.22   | 2.85   | 3.24   |
| thing.n.12                   | 0.72   | 0.47   | 0.60   | 0.95   |
| process.n.06                 | 0.43   | 0.49   | 0.35   | 0.50   |
| set.n.02                     | 0.00   | 0.00   | 0.01   | 0.00   |
| **total**                    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S128. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|                              | g. | p. | i. | h. |
|------------------------------|--------|--------|--------|--------|
| definite_quantity.n.01       | 20.32  | 18.86  | 23.85  | 16.08  |
| event.n.01                   | 17.51  | 15.85  | 15.23  | 21.13  |
| whole.n.02                   | 13.89  | 16.34  | 12.16  | 15.38  |
| person.n.01                  | 8.57   | 9.34   | 8.07   | 9.00   |
| message.n.02                 | 6.86   | 10.20  | 6.48   | 6.23   |
| cognition.n.01               | 6.48   | 5.30   | 6.57   | 6.76   |
| message.n.01                 | 5.74   | 5.59   | 6.01   | 5.44   |
| location.n.01                | 4.81   | 5.16   | 4.25   | 5.45   |
| land.n.04                    | 4.50   | 2.89   | 6.42   | 2.47   |
| substance.n.01               | 4.21   | 4.10   | 3.84   | 4.74   |
| written_communication.n.01   | 3.86   | 3.24   | 3.91   | 4.00   |
| state.n.02                   | 3.25   | 3.12   | 3.22   | 3.32   |
| **total**                    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S129. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|       | g. | p. | i. | h. |
|-------|------|------|------|------|
| N     | 63.16 | 63.94 | 65.35 | 58.18 |
| ADJ   | 10.16 | 9.98 | 10.06 | 11.02 |
| VERB  | 4.13 | 4.27 | 2.25 | 4.65 |
| ADV   | 22.55 | 21.80 | 22.34 | 26.15 |
| POS   | 32.19 | 32.43 | 29.91 | 32.61 |
| POS!  | 90.96 | 90.02 | 92.74 | 94.47 |

TABLE S130. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 6

|       | g. | p. | i. | h. |
|-------|------|------|------|------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S131. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 6

|       | g. | p. | i. | h. |
|-------|------|------|------|------|
| abstraction.n.06 | 67.32 | 67.18 | 69.55 | 66.45 |
| physical_entity.n.01 | 32.68 | 32.82 | 30.45 | 33.55 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S132. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

|       | g. | p. | i. | h. |
|-------|------|------|------|------|
| measure.n.02 | 16.62 | 14.03 | 30.39 | 20.30 |
| object.n.01 | 16.43 | 16.22 | 14.39 | 18.97 |
| psychological_feature.n.01 | 14.20 | 12.66 | 17.44 | 19.83 |
| attribute.n.02 | 13.84 | 16.65 | 4.93 | 5.57 |
| communication.n.02 | 13.76 | 14.05 | 9.59 | 15.22 |
| matter.n.03 | 7.17 | 7.64 | 8.19 | 4.02 |
| causal_agent.n.01 | 6.61 | 6.33 | 5.58 | 8.79 |
| group.n.01 | 5.33 | 5.86 | 4.18 | 3.44 |
| relation.n.01 | 3.57 | 3.93 | 3.03 | 2.08 |
| thing.n.12 | 1.53 | 1.51 | 1.92 | 1.33 |
| process.n.06 | 0.94 | 1.11 | 0.38 | 0.44 |
| set.n.02 | 0.00 | 0.00 | 0.00 | 0.01 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S133. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

|       | g. | p. | i. | h. |
|-------|------|------|------|------|
| definite_quantity.n.01 | 17.70 | 14.35 | 34.59 | 21.71 |
| whole.n.02 | 13.00 | 12.89 | 9.75 | 15.79 |
| property.n.02 | 10.26 | 13.49 | 1.75 | 0.98 |
| event.n.01 | 9.61 | 9.01 | 10.93 | 11.51 |
| person.n.01 | 8.14 | 7.93 | 6.55 | 10.26 |
| cognition.n.01 | 8.05 | 7.06 | 9.58 | 11.62 |
| substance.n.01 | 7.60 | 8.16 | 8.99 | 3.98 |
| location.n.01 | 6.94 | 7.31 | 6.77 | 5.32 |
| message.n.02 | 6.21 | 5.43 | 5.10 | 10.66 |
| signal.n.01 | 5.54 | 7.37 | 0.30 | 0.60 |
| state.n.02 | 4.19 | 4.32 | 3.23 | 4.20 |
| written_communication.n.01 | 2.77 | 2.68 | 2.49 | 3.38 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S134. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 6

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 83.39 | 81.57 | 84.31 | 83.07 |
| ADJ | 9.77 | 8.97 | 9.77 | 10.14 |
| VERB | 0.23 | 0.50 | 0.21 | 0.14 |
| ADV | 6.61 | 8.97 | 5.71 | 6.65 |
| POS | 19.19 | 21.39 | 19.14 | 18.34 |
| POS! | 89.88 | 90.28 | 88.84 | 91.09 |

TABLE S135. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| definite_quantity.n.01 | 24.93 | 34.96 | 24.85 | 20.45 |
| written_communication.n.01 | 18.51 | 13.92 | 18.93 | 20.05 |
| whole.n.02 | 11.08 | 12.50 | 11.06 | 10.45 |
| shape.n.02 | 9.74 | 7.13 | 9.61 | 11.09 |
| substance.n.01 | 8.65 | 5.76 | 9.12 | 9.34 |
| person.n.01 | 5.81 | 5.03 | 5.70 | 6.31 |
| event.n.01 | 5.17 | 4.93 | 5.26 | 5.16 |
| social_group.n.01 | 4.50 | 2.98 | 4.58 | 5.09 |
| state.n.02 | 3.27 | 3.66 | 3.01 | 3.42 |
| cognition.n.01 | 2.97 | 2.98 | 3.06 | 2.85 |
| message.n.02 | 2.76 | 3.37 | 2.49 | 2.85 |
| location.n.01 | 2.62 | 2.78 | 2.32 | 2.93 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S139. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S136. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 70.20 | 73.68 | 69.46 | 69.56 |
| physical_entity.n.01 | 29.80 | 26.32 | 30.54 | 30.44 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S137. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| measure.n.02 | 23.38 | 33.02 | 22.93 | 19.43 |
| communication.n.02 | 20.63 | 17.29 | 20.43 | 22.48 |
| object.n.01 | 12.53 | 13.16 | 12.46 | 12.32 |
| attribute.n.02 | 12.07 | 9.64 | 11.95 | 13.38 |
| matter.n.03 | 9.30 | 6.33 | 10.17 | 9.54 |
| psychological_feature.n.01 | 6.99 | 6.70 | 7.11 | 6.98 |
| causal_agent.n.01 | 6.46 | 5.11 | 6.53 | 7.00 |
| group.n.01 | 4.63 | 4.17 | 4.51 | 5.01 |
| relation.n.01 | 2.49 | 2.86 | 2.52 | 2.27 |
| thing.n.12 | 0.97 | 0.61 | 1.04 | 1.06 |
| process.n.06 | 0.54 | 1.10 | 0.35 | 0.52 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S138. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 7

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| N      | 58.77 | 74.95 | 55.26 | 52.55 |
| ADJ    | 10.09 | 8.17  | 10.32 | 10.93 |
| VERB   | 7.05  | 2.33  | 7.71  | 9.04  |
| ADV    | 24.08 | 14.56 | 26.72 | 27.48 |
| POS    | 32.49 | 31.71 | 33.30 | 32.51 |
| POS!   | 94.78 | 92.60 | 94.90 | 95.81 |

TABLE S140. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 8

|              | g.     | p.     | i.     | h.     |
|--------------|--------|--------|--------|--------|
| entity.n.01  | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S141. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 8

|                        | g.     | p.     | i.     | h.     |
|------------------------|--------|--------|--------|--------|
| abstraction.n.06       | 67.39  | 68.44  | 66.20  | 67.24  |
| physical_entity.n.01   | 32.61  | 31.56  | 33.80  | 32.76  |
| **total**              | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S142. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| measure.n.02               | 22.89  | 17.29  | 24.49  | 25.97  |
| object.n.01                | 21.17  | 17.58  | 23.73  | 22.41  |
| communication.n.02         | 13.53  | 17.01  | 10.89  | 12.41  |
| psychological_feature.n.01 | 13.33  | 8.54   | 16.29  | 15.20  |
| attribute.n.02             | 9.52   | 16.38  | 6.91   | 6.03   |
| matter.n.03                | 6.25   | 8.50   | 4.18   | 5.70   |
| group.n.01                 | 5.27   | 6.78   | 5.06   | 4.34   |
| causal_agent.n.01          | 4.14   | 4.33   | 4.91   | 3.62   |
| relation.n.01              | 2.85   | 2.44   | 2.56   | 3.28   |
| process.n.06               | 0.56   | 0.60   | 0.61   | 0.52   |
| thing.n.12                 | 0.49   | 0.54   | 0.37   | 0.51   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S143. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

|                              | g.     | p.     | i.     | h.     |
|------------------------------|--------|--------|--------|--------|
| definite_quantity.n.01       | 23.28  | 14.49  | 25.61  | 27.81  |
| whole.n.02                   | 21.81  | 15.45  | 24.58  | 24.57  |
| event.n.01                   | 9.34   | 6.16   | 11.41  | 10.38  |
| cognition.n.01               | 7.08   | 5.07   | 8.26   | 7.80   |
| substance.n.01               | 6.37   | 9.14   | 4.47   | 5.51   |
| message.n.02                 | 6.23   | 4.16   | 6.30   | 7.53   |
| property.n.02                | 5.74   | 13.97  | 2.20   | 2.14   |
| signal.n.01                  | 4.60   | 13.03  | 0.62   | 1.10   |
| location.n.01                | 4.28   | 7.09   | 4.16   | 2.53   |
| person.n.01                  | 4.24   | 5.28   | 4.67   | 3.37   |
| written_communication.n.01   | 3.57   | 3.25   | 4.07   | 3.53   |
| state.n.02                   | 3.47   | 2.93   | 3.66   | 3.73   |
| **total**                    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S144. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 8

|        | g.    | p.    | i.    | h.    |
|--------|-------|-------|-------|-------|
| N      | 59.96 | 61.65 | 60.47 | 56.66 |
| ADJ    | 10.30 | 10.26 | 10.61 | 9.88  |
| VERB   | 4.74  | 3.61  | 4.92  | 6.11  |
| ADV    | 25.00 | 24.48 | 23.99 | 27.34 |
| POS    | 34.04 | 33.85 | 34.40 | 33.78 |
| POS!   | 91.76 | 89.58 | 93.02 | 93.13 |

TABLE S145. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 9

|             | g.     | p.     | i.     | h.     |
|-------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**   | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S146. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 9

|                      | g.     | p.     | i.     | h.     |
|----------------------|--------|--------|--------|--------|
| abstraction.n.06     | 70.92  | 69.85  | 72.33  | 70.27  |
| physical_entity.n.01 | 29.08  | 30.15  | 27.67  | 29.73  |
| **total**            | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S147. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

|                             | g.     | p.     | i.     | h.     |
|-----------------------------|--------|--------|--------|--------|
| measure.n.02                | 20.50  | 23.18  | 21.92  | 13.83  |
| communication.n.02          | 17.49  | 16.15  | 16.78  | 20.84  |
| psychological_feature.n.01  | 16.34  | 15.23  | 16.12  | 18.46  |
| object.n.01                 | 16.20  | 15.42  | 15.69  | 18.32  |
| group.n.01                  | 8.13   | 7.61   | 8.51   | 8.34   |
| causal_agent.n.01           | 7.02   | 8.47   | 6.41   | 5.72   |
| attribute.n.02              | 6.30   | 5.54   | 7.14   | 6.10   |
| matter.n.03                 | 4.53   | 5.13   | 4.22   | 4.06   |
| relation.n.01               | 2.14   | 2.11   | 1.84   | 2.69   |
| process.n.06                | 0.67   | 0.55   | 0.65   | 0.90   |
| thing.n.12                  | 0.66   | 0.58   | 0.69   | 0.72   |
| set.n.02                    | 0.02   | 0.02   | 0.02   | 0.00   |
| **total**                   | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S148. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

|                              | g.     | p.     | i.     | h.     |
|------------------------------|--------|--------|--------|--------|
| definite_quantity.n.01       | 21.68  | 24.94  | 23.07  | 14.06  |
| whole.n.02                   | 13.86  | 13.27  | 12.72  | 16.76  |
| event.n.01                   | 12.37  | 12.39  | 11.85  | 13.22  |
| message.n.02                 | 9.14   | 8.53   | 8.75   | 10.78  |
| person.n.01                  | 8.03   | 9.99   | 7.21   | 6.32   |
| cognition.n.01               | 7.28   | 6.12   | 7.26   | 9.20   |
| collection.n.01              | 6.40   | 5.10   | 7.11   | 7.28   |
| written_communication.n.01   | 5.66   | 4.78   | 5.24   | 7.80   |
| location.n.01                | 4.97   | 4.76   | 5.44   | 4.48   |
| substance.n.01               | 4.12   | 4.39   | 3.95   | 3.97   |
| property.n.02                | 3.26   | 2.56   | 3.88   | 3.31   |
| state.n.02                   | 3.23   | 3.16   | 3.53   | 2.83   |
| **total**                    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S149. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 9

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| N     | 56.34 | 59.22 | 57.54 | 51.90 |
| ADJ   | 12.99 | 13.42 | 13.02 | 12.63 |
| VERB  | 5.64  | 4.82  | 5.47  | 6.54  |
| ADV   | 25.03 | 22.53 | 23.97 | 28.93 |
| POS   | 34.29 | 35.15 | 34.07 | 34.23 |
| POS!  | 95.67 | 95.33 | 95.78 | 95.65 |

TABLE S150. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 10

|                   | g.     | p.     | i.     | h.     |
|-------------------|--------|--------|--------|--------|
| entity.n.01       | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**         | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S151. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 10

|                      | g.     | p.     | i.     | h.     |
|----------------------|--------|--------|--------|--------|
| abstraction.n.06     | 74.14  | 73.26  | 74.41  | 74.17  |
| physical_entity.n.01 | 25.86  | 26.74  | 25.59  | 25.83  |
| **total**            | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S152. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| communication.n.02         | 25.32  | 24.70  | 24.15  | 28.56  |
| psychological_feature.n.01 | 17.57  | 16.71  | 18.07  | 17.01  |
| measure.n.02               | 16.95  | 15.83  | 17.81  | 15.75  |
| object.n.01                | 10.30  | 11.56  | 10.46  | 8.99   |
| causal_agent.n.01          | 8.57   | 8.67   | 9.24   | 6.93   |
| matter.n.03                | 6.08   | 5.76   | 5.01   | 8.87   |
| attribute.n.02             | 5.43   | 6.96   | 5.36   | 4.46   |
| group.n.01                 | 4.97   | 6.24   | 4.76   | 4.49   |
| relation.n.01              | 3.89   | 2.78   | 4.25   | 3.87   |
| process.n.06               | 0.50   | 0.44   | 0.54   | 0.47   |
| thing.n.12                 | 0.40   | 0.31   | 0.35   | 0.57   |
| set.n.02                   | 0.01   | 0.02   | 0.00   | 0.02   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S153. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| definite_quantity.n.01     | 15.54  | 14.38  | 16.48  | 14.17  |
| event.n.01                 | 14.27  | 14.46  | 13.97  | 14.86  |
| message.n.02               | 12.87  | 13.33  | 11.82  | 15.05  |
| person.n.01                | 10.99  | 11.26  | 11.74  | 9.01   |
| cognition.n.01             | 8.71   | 7.76   | 9.51   | 7.48   |
| whole.n.02                 | 7.46   | 7.64   | 7.95   | 6.17   |
| substance.n.01             | 6.43   | 6.53   | 5.57   | 8.41   |
| indication.n.01            | 5.73   | 5.07   | 5.50   | 6.79   |
| location.n.01              | 5.41   | 6.85   | 5.08   | 5.13   |
| language.n.01              | 5.05   | 4.58   | 5.89   | 3.39   |
| fundamental_quantity.n.01  | 3.89   | 4.40   | 3.86   | 3.60   |
| written_communication.n.01 | 3.64   | 3.73   | 2.65   | 5.95   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S154. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 10

|       | g. | p. | i. | h. |
|-------|-------|-------|-------|-------|
| N     | 56.32 | 57.73 | 58.82 | 52.33 |
| ADJ   | 15.07 | 14.46 | 14.96 | 15.33 |
| VERB  | 7.08  | 6.94  | 6.55  | 7.91  |
| ADV   | 21.53 | 20.87 | 19.67 | 24.43 |
| POS   | 37.05 | 36.60 | 37.17 | 36.94 |
| POS!  | 95.60 | 95.01 | 95.42 | 95.96 |

TABLE S155. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 11

|       | g. | p. | i. | h. |
|-------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S156. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 11

|       | g. | p. | i. | h. |
|-------|--------|--------|--------|--------|
| abstraction.n.06 | 69.95 | 69.64 | 67.25 | 74.56 |
| physical_entity.n.01 | 30.05 | 30.36 | 32.75 | 25.44 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S157. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

|       | g. | p. | i. | h. |
|-------|--------|--------|--------|--------|
| psychological_feature.n.01 | 18.82 | 18.16 | 16.63 | 22.64 |
| communication.n.02 | 17.90 | 19.13 | 16.11 | 20.73 |
| measure.n.02 | 14.71 | 15.90 | 16.13 | 12.09 |
| object.n.01 | 13.09 | 12.59 | 14.13 | 11.41 |
| causal_agent.n.01 | 9.36 | 11.54 | 9.58 | 8.62 |
| relation.n.01 | 6.87 | 6.40 | 7.05 | 6.65 |
| attribute.n.02 | 5.93 | 5.84 | 5.62 | 6.47 |
| group.n.01 | 5.71 | 4.21 | 5.72 | 5.96 |
| matter.n.03 | 5.22 | 4.82 | 6.30 | 3.46 |
| thing.n.12 | 1.85 | 1.00 | 2.31 | 1.21 |
| process.n.06 | 0.54 | 0.41 | 0.43 | 0.75 |
| set.n.02 | 0.00 | 0.00 | 0.00 | 0.01 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S158. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

|       | g. | p. | i. | h. |
|-------|--------|--------|--------|--------|
| definite_quantity.n.01 | 14.47 | 15.14 | 16.49 | 10.87 |
| cognition.n.01 | 13.49 | 11.40 | 11.41 | 17.47 |
| person.n.01 | 12.11 | 14.70 | 12.25 | 11.41 |
| event.n.01 | 10.75 | 11.34 | 9.92 | 12.07 |
| location.n.01 | 7.80 | 6.42 | 9.00 | 5.97 |
| whole.n.02 | 7.62 | 8.53 | 7.33 | 7.96 |
| part.n.01 | 6.90 | 6.23 | 7.21 | 6.49 |
| language.n.01 | 6.64 | 6.29 | 6.49 | 6.95 |
| message.n.02 | 6.62 | 7.54 | 6.32 | 6.99 |
| substance.n.01 | 5.65 | 4.27 | 6.97 | 3.63 |
| written_communication.n.01 | 4.69 | 4.76 | 3.53 | 6.68 |
| fundamental_quantity.n.01 | 3.26 | 3.39 | 3.09 | 3.52 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S159. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 11

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| N     | 61.95 | 64.01 | 61.41 | 61.32 |
| ADJ   | 9.52  | 8.94  | 9.95  | 9.19  |
| VERB  | 3.29  | 2.87  | 3.40  | 3.40  |
| ADV   | 25.24 | 24.18 | 25.23 | 26.10 |
| POS   | 33.08 | 33.08 | 32.57 | 34.07 |
| POS!  | 96.00 | 94.86 | 96.66 | 95.69 |

TABLE S160. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 12

|            | g.     | p.     | i.     | h.     |
|------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**   | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S161. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 12

|                      | g.    | p.    | i.    | h.    |
|----------------------|-------|-------|-------|-------|
| abstraction.n.06     | 65.96 | 67.13 | 65.58 | 65.70 |
| physical_entity.n.01 | 34.04 | 32.87 | 34.42 | 34.30 |
| **total**            | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S162. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|                          | g.    | p.    | i.    | h.    |
|--------------------------|-------|-------|-------|-------|
| psychological_feature.n.01 | 25.04 | 26.83 | 24.50 | 24.55 |
| object.n.01              | 23.29 | 23.61 | 23.03 | 23.51 |
| communication.n.02       | 14.69 | 13.22 | 14.87 | 15.56 |
| measure.n.02             | 11.12 | 13.15 | 10.81 | 10.01 |
| causal_agent.n.01        | 6.52  | 5.55  | 6.86  | 6.72  |
| group.n.01               | 6.07  | 5.04  | 6.11  | 6.85  |
| attribute.n.02           | 6.06  | 5.70  | 6.37  | 5.80  |
| matter.n.03              | 3.16  | 2.71  | 3.38  | 3.13  |
| relation.n.01            | 2.99  | 3.19  | 2.93  | 2.92  |
| process.n.06             | 0.53  | 0.29  | 0.64  | 0.52  |
| thing.n.12               | 0.53  | 0.72  | 0.51  | 0.42  |
| set.n.02                 | 0.00  | 0.00  | 0.00  | 0.01  |
| **total**                | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S163. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|                            | g.    | p.    | i.    | h.    |
|----------------------------|-------|-------|-------|-------|
| event.n.01                 | 22.04 | 23.59 | 21.43 | 21.87 |
| whole.n.02                 | 16.85 | 16.56 | 16.24 | 18.20 |
| definite_quantity.n.01     | 11.27 | 13.77 | 11.02 | 9.64  |
| cognition.n.01             | 8.82  | 9.38  | 8.90  | 8.21  |
| person.n.01                | 7.94  | 6.74  | 8.39  | 8.12  |
| message.n.02               | 7.76  | 6.20  | 8.10  | 8.41  |
| location.n.01              | 5.61  | 4.82  | 5.78  | 5.94  |
| collection.n.01            | 5.03  | 3.84  | 5.06  | 5.95  |
| land.n.04                  | 4.86  | 4.90  | 5.60  | 3.46  |
| state.n.02                 | 3.45  | 3.86  | 3.21  | 3.56  |
| written_communication.n.01 | 3.38  | 3.59  | 3.16  | 3.61  |
| substance.n.01             | 3.00  | 2.75  | 3.11  | 3.02  |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S164. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 12

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 65.34 | 78.69 | 58.79 | 50.99 |
| ADJ | 10.04 | 7.85 | 10.53 | 12.45 |
| VERB | 4.82 | 2.10 | 4.06 | 7.97 |
| ADV | 19.80 | 11.35 | 26.62 | 28.59 |
| POS | 26.10 | 21.58 | 28.67 | 33.77 |
| POS! | 93.55 | 91.90 | 92.64 | 95.60 |

TABLE S165. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S166. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 65.37 | 60.74 | 76.00 | 72.05 |
| physical_entity.n.01 | 34.63 | 39.26 | 24.00 | 27.95 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S167. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| measure.n.02 | 20.34 | 22.08 | 31.19 | 15.88 |
| object.n.01 | 16.06 | 17.00 | 12.00 | 14.95 |
| psychological_feature.n.01 | 15.00 | 10.36 | 17.68 | 22.74 |
| communication.n.02 | 12.91 | 10.72 | 12.64 | 16.75 |
| matter.n.03 | 10.38 | 13.70 | 6.09 | 5.15 |
| attribute.n.02 | 9.07 | 9.90 | 6.55 | 7.95 |
| causal_agent.n.01 | 6.80 | 7.23 | 4.12 | 6.40 |
| group.n.01 | 4.70 | 4.68 | 4.23 | 4.80 |
| relation.n.01 | 3.34 | 3.00 | 3.65 | 3.89 |
| thing.n.12 | 0.89 | 0.93 | 0.64 | 0.86 |
| process.n.06 | 0.49 | 0.39 | 1.16 | 0.59 |
| set.n.02 | 0.02 | 0.00 | 0.06 | 0.04 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S168. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| definite_quantity.n.01 | 22.20 | 24.33 | 35.17 | 16.40 |
| whole.n.02 | 14.19 | 14.10 | 12.64 | 14.59 |
| event.n.01 | 10.57 | 8.25 | 13.31 | 14.59 |
| substance.n.01 | 10.27 | 13.16 | 6.84 | 5.28 |
| cognition.n.01 | 8.40 | 4.52 | 9.29 | 15.60 |
| person.n.01 | 8.14 | 8.13 | 5.28 | 8.54 |
| property.n.02 | 6.08 | 7.46 | 2.90 | 3.90 |
| location.n.01 | 5.38 | 6.10 | 2.30 | 4.43 |
| message.n.02 | 4.56 | 3.32 | 6.02 | 6.69 |
| signal.n.01 | 4.06 | 5.38 | 0.67 | 2.02 |
| written_communication.n.01 | 3.53 | 1.93 | 4.61 | 6.41 |
| substance.n.07 | 2.63 | 3.32 | 0.97 | 1.56 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S169. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 13

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 63.63 | 67.81 | 62.92 | 56.68 |
| ADJ | 8.56 | 7.77 | 8.65 | 10.08 |
| VERB | 4.51 | 3.43 | 4.64 | 6.60 |
| ADV | 23.31 | 21.00 | 23.79 | 26.64 |
| POS | 35.11 | 35.23 | 35.18 | 34.40 |
| POS! | 93.54 | 94.79 | 93.25 | 91.99 |

TABLE S170. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S171. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 65.82 | 65.10 | 66.56 | 63.42 |
| physical_entity.n.01 | 34.18 | 34.90 | 33.44 | 36.58 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S172. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| measure.n.02 | 23.47 | 18.80 | 26.32 | 20.17 |
| object.n.01 | 15.72 | 15.89 | 15.18 | 18.58 |
| psychological_feature.n.01 | 14.73 | 14.80 | 14.64 | 15.15 |
| causal_agent.n.01 | 11.17 | 11.25 | 11.52 | 8.69 |
| communication.n.02 | 10.76 | 12.44 | 9.78 | 11.67 |
| attribute.n.02 | 8.96 | 9.10 | 8.79 | 9.64 |
| group.n.01 | 5.37 | 6.58 | 4.89 | 4.55 |
| matter.n.03 | 5.26 | 6.11 | 4.75 | 5.87 |
| relation.n.01 | 2.53 | 3.37 | 2.15 | 2.25 |
| process.n.06 | 1.50 | 1.23 | 1.58 | 1.80 |
| thing.n.12 | 0.53 | 0.42 | 0.41 | 1.63 |
| set.n.02 | 0.00 | 0.01 | 0.00 | 0.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S173. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| definite_quantity.n.01 | 22.37 | 17.99 | 24.78 | 20.63 |
| whole.n.02 | 15.46 | 14.26 | 15.37 | 19.93 |
| person.n.01 | 13.67 | 14.17 | 13.81 | 11.15 |
| event.n.01 | 12.95 | 13.28 | 12.67 | 13.74 |
| cognition.n.01 | 6.00 | 5.88 | 6.00 | 6.38 |
| substance.n.01 | 5.20 | 6.45 | 4.43 | 6.25 |
| state.n.02 | 4.82 | 5.40 | 4.51 | 4.93 |
| message.n.02 | 4.73 | 4.72 | 4.68 | 5.05 |
| fundamental_quantity.n.01 | 4.29 | 3.81 | 4.93 | 1.67 |
| location.n.01 | 4.27 | 5.54 | 3.58 | 4.67 |
| written_communication.n.01 | 3.29 | 3.83 | 2.95 | 3.79 |
| social_group.n.01 | 2.95 | 4.67 | 2.29 | 1.80 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S174. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 15

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 65.42 | 77.23 | 60.80 | 56.34 |
| ADJ | 8.22 | 5.57 | 9.39 | 10.11 |
| VERB | 4.17 | 2.04 | 4.71 | 6.12 |
| ADV | 22.19 | 15.16 | 25.09 | 27.43 |
| POS | 31.20 | 34.47 | 29.46 | 29.77 |
| POS! | 94.12 | 95.15 | 93.10 | 94.05 |

TABLE S175. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S176. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 70.25 | 72.61 | 69.35 | 67.43 |
| physical_entity.n.01 | 29.75 | 27.39 | 30.65 | 32.57 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S177. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| measure.n.02 | 22.32 | 16.98 | 30.44 | 21.31 |
| communication.n.02 | 18.13 | 25.33 | 10.71 | 15.20 |
| object.n.01 | 17.35 | 16.46 | 17.69 | 18.41 |
| psychological_feature.n.01 | 12.95 | 8.55 | 15.20 | 17.53 |
| attribute.n.02 | 9.75 | 14.45 | 5.63 | 6.98 |
| matter.n.03 | 6.61 | 6.65 | 6.59 | 6.57 |
| causal_agent.n.01 | 4.65 | 3.46 | 5.31 | 5.82 |
| group.n.01 | 3.93 | 3.81 | 4.87 | 3.01 |
| relation.n.01 | 3.16 | 3.49 | 2.50 | 3.39 |
| thing.n.12 | 0.71 | 0.40 | 0.67 | 1.27 |
| process.n.06 | 0.44 | 0.43 | 0.41 | 0.49 |
| set.n.02 | 0.00 | 0.00 | 0.00 | 0.02 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S178. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| definite_quantity.n.01 | 24.09 | 17.56 | 33.94 | 23.02 |
| whole.n.02 | 13.85 | 9.13 | 16.60 | 18.46 |
| signal.n.01 | 9.57 | 20.29 | 1.16 | 1.73 |
| event.n.01 | 9.05 | 6.41 | 9.53 | 12.93 |
| substance.n.01 | 6.81 | 6.86 | 6.64 | 6.95 |
| property.n.02 | 6.56 | 12.46 | 2.18 | 1.95 |
| cognition.n.01 | 6.14 | 3.57 | 8.23 | 7.92 |
| location.n.01 | 6.06 | 9.77 | 3.38 | 3.06 |
| person.n.01 | 5.41 | 3.96 | 6.16 | 6.96 |
| message.n.02 | 5.32 | 4.25 | 5.25 | 7.23 |
| written_communication.n.01 | 3.57 | 2.71 | 3.48 | 5.13 |
| state.n.02 | 3.57 | 3.03 | 3.45 | 4.64 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S179. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 16

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 62.98 | 65.94 | 62.18 | 62.89 |
| ADJ | 9.31 | 8.01 | 9.54 | 9.43 |
| VERB | 3.72 | 3.47 | 3.70 | 3.79 |
| ADV | 24.00 | 22.58 | 24.57 | 23.89 |
| POS | 30.52 | 32.32 | 29.55 | 30.89 |
| POS! | 92.75 | 95.03 | 92.45 | 92.46 |

TABLE S180. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 17

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S181. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 17

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 64.41 | 66.91 | 63.84 | 64.22 |
| physical_entity.n.01 | 35.59 | 33.09 | 36.16 | 35.78 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S182. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| measure.n.02 | 22.91 | 23.80 | 22.37 | 23.10 |
| object.n.01 | 20.04 | 21.24 | 19.00 | 20.53 |
| psychological_feature.n.01 | 15.92 | 16.63 | 15.05 | 16.40 |
| communication.n.02 | 11.20 | 12.63 | 11.76 | 10.43 |
| causal_agent.n.01 | 8.87 | 7.37 | 9.51 | 8.76 |
| attribute.n.02 | 7.55 | 7.06 | 7.14 | 7.97 |
| matter.n.03 | 5.52 | 3.01 | 6.93 | 5.08 |
| group.n.01 | 4.05 | 4.19 | 4.45 | 3.71 |
| relation.n.01 | 2.78 | 2.59 | 3.08 | 2.60 |
| thing.n.12 | 0.73 | 0.62 | 0.54 | 0.89 |
| process.n.06 | 0.43 | 0.84 | 0.17 | 0.51 |
| set.n.02 | 0.00 | 0.00 | 0.00 | 0.01 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S183. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| definite_quantity.n.01 | 24.06 | 25.45 | 22.95 | 24.56 |
| whole.n.02 | 19.02 | 20.69 | 17.99 | 19.38 |
| event.n.01 | 11.84 | 12.89 | 12.40 | 11.17 |
| person.n.01 | 10.03 | 8.36 | 10.86 | 9.82 |
| cognition.n.01 | 6.79 | 6.66 | 5.24 | 7.99 |
| message.n.02 | 6.18 | 6.36 | 6.78 | 5.68 |
| substance.n.01 | 6.03 | 2.86 | 7.66 | 5.59 |
| location.n.01 | 3.84 | 3.23 | 4.03 | 3.84 |
| state.n.02 | 3.67 | 4.86 | 3.50 | 3.51 |
| written_communication.n.01 | 3.47 | 3.93 | 3.69 | 3.20 |
| shape.n.02 | 2.61 | 1.77 | 2.38 | 2.99 |
| collection.n.01 | 2.45 | 2.93 | 2.54 | 2.27 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S184. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 17

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| N     | 56.19 | 71.61 | 56.95 | 52.63 |
| ADJ   | 12.07 | 8.89  | 11.67 | 12.89 |
| VERB  | 6.81  | 3.60  | 6.35  | 7.67  |
| ADV   | 24.93 | 15.91 | 25.04 | 26.81 |
| POS   | 32.94 | 35.75 | 32.14 | 32.70 |
| POS!  | 95.54 | 95.29 | 94.63 | 95.93 |

TABLE S185. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 18

|            | g.     | p.     | i.     | h.     |
|------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S186. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 18

|                        | g.     | p.     | i.     | h.     |
|------------------------|--------|--------|--------|--------|
| abstraction.n.06       | 68.59  | 61.50  | 71.79  | 69.36  |
| physical_entity.n.01   | 31.41  | 38.50  | 28.21  | 30.64  |
| **total**              | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S187. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

|                             | g.     | p.     | i.     | h.     |
|-----------------------------|--------|--------|--------|--------|
| communication.n.02          | 19.74  | 19.38  | 19.64  | 19.88  |
| object.n.01                 | 19.19  | 24.70  | 16.17  | 18.81  |
| measure.n.02                | 17.16  | 14.36  | 20.05  | 16.81  |
| psychological_feature.n.01  | 16.05  | 9.56   | 17.46  | 17.36  |
| attribute.n.02              | 8.43   | 11.55  | 7.82   | 7.77   |
| matter.n.03                 | 5.20   | 8.23   | 4.58   | 4.57   |
| causal_agent.n.01           | 4.83   | 3.52   | 5.26   | 5.03   |
| group.n.01                  | 4.49   | 3.71   | 4.36   | 4.77   |
| relation.n.01               | 2.71   | 2.90   | 2.45   | 2.76   |
| thing.n.12                  | 1.34   | 1.25   | 1.62   | 1.25   |
| process.n.06                | 0.85   | 0.80   | 0.58   | 0.98   |
| set.n.02                    | 0.02   | 0.03   | 0.01   | 0.01   |
| **total**                   | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S188. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

|                              | g.     | p.     | i.     | h.     |
|------------------------------|--------|--------|--------|--------|
| whole.n.02                   | 17.85  | 24.14  | 14.39  | 17.26  |
| definite_quantity.n.01       | 17.36  | 14.62  | 20.23  | 17.08  |
| event.n.01                   | 12.45  | 7.21   | 14.42  | 13.31  |
| cognition.n.01               | 8.10   | 4.21   | 8.34   | 9.23   |
| message.n.02                 | 7.35   | 4.20   | 7.15   | 8.42   |
| location.n.01                | 6.15   | 5.08   | 5.93   | 6.58   |
| person.n.01                  | 6.06   | 3.67   | 6.77   | 6.54   |
| written_communication.n.01   | 5.73   | 2.69   | 6.77   | 6.27   |
| substance.n.01               | 5.44   | 8.35   | 4.79   | 4.77   |
| property.n.02                | 5.23   | 10.84  | 4.72   | 3.66   |
| indication.n.01              | 4.41   | 2.58   | 4.58   | 4.92   |
| signal.n.01                  | 3.87   | 12.42  | 1.92   | 1.95   |
| **total**                    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S189. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 18

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| N | 50.76 | 65.96 | 50.30 | 46.59 |
| ADJ | 12.33 | 9.59 | 12.56 | 13.03 |
| VERB | 6.91 | 3.17 | 6.30 | 8.19 |
| ADV | 30.00 | 21.28 | 30.85 | 32.19 |
| POS | 32.18 | 29.89 | 31.24 | 33.26 |
| POS! | 96.08 | 95.32 | 96.10 | 96.29 |

TABLE S190. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 19

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S191. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 19

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| abstraction.n.06 | 71.95 | 69.55 | 68.22 | 74.31 |
| physical_entity.n.01 | 28.05 | 30.45 | 31.78 | 25.69 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S192. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| psychological_feature.n.01 | 18.80 | 14.77 | 16.29 | 21.37 |
| measure.n.02 | 15.96 | 19.13 | 15.46 | 14.86 |
| communication.n.02 | 14.51 | 18.06 | 13.83 | 13.33 |
| object.n.01 | 13.57 | 13.46 | 16.72 | 12.43 |
| group.n.01 | 10.55 | 6.21 | 11.32 | 12.02 |
| attribute.n.02 | 8.63 | 8.52 | 8.27 | 8.82 |
| causal_agent.n.01 | 7.67 | 4.50 | 8.83 | 8.52 |
| matter.n.03 | 5.43 | 11.32 | 5.13 | 3.16 |
| relation.n.01 | 3.48 | 2.87 | 3.04 | 3.89 |
| process.n.06 | 0.84 | 0.56 | 0.38 | 1.13 |
| thing.n.12 | 0.55 | 0.61 | 0.73 | 0.45 |
| set.n.02 | 0.01 | 0.00 | 0.00 | 0.02 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S193. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

|  | g. | p. | i. | h. |
|---|---|---|---|---|
| definite_quantity.n.01 | 16.12 | 22.15 | 15.61 | 13.99 |
| event.n.01 | 14.52 | 12.14 | 12.61 | 16.18 |
| whole.n.02 | 12.31 | 12.30 | 15.79 | 10.97 |
| cognition.n.01 | 9.32 | 7.45 | 7.43 | 10.78 |
| person.n.01 | 9.25 | 5.79 | 10.58 | 10.08 |
| message.n.02 | 8.83 | 9.73 | 7.90 | 8.85 |
| collection.n.01 | 7.68 | 3.91 | 8.05 | 8.99 |
| substance.n.01 | 5.69 | 12.70 | 5.21 | 3.17 |
| state.n.02 | 5.43 | 2.85 | 5.46 | 6.42 |
| location.n.01 | 3.87 | 4.41 | 3.68 | 3.74 |
| social_group.n.01 | 3.61 | 2.69 | 3.96 | 3.83 |
| written_communication.n.01 | 3.35 | 3.88 | 3.71 | 3.01 |
| **total** | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S194. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 19

## 2.  Snapshots of 2000 messages

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| N     | 56.00 | 56.84 | 55.68 | 56.11 |
| ADJ   | 11.39 | 11.67 | 11.75 | 11.00 |
| VERB  | 5.80  | 4.84  | 5.49  | 6.29  |
| ADV   | 26.81 | 26.65 | 27.08 | 26.60 |
| POS   | 33.33 | 33.49 | 33.24 | 33.37 |
| POS!  | 96.05 | 95.82 | 96.11 | 96.05 |

TABLE S195.  Percentage of synsets with each of the POS tags used by Wordnet.  The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!).  The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags .  Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 0

|            | g.     | p.     | i.     | h.     |
|------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S196.  Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 0

|                     | g.     | p.     | i.     | h.     |
|---------------------|--------|--------|--------|--------|
| abstraction.n.06    | 72.31  | 76.48  | 71.80  | 71.87  |
| physical_entity.n.01 | 27.69 | 23.52  | 28.20  | 28.13  |
| **total**           | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S197.  Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|                          | g.     | p.     | i.     | h.     |
|--------------------------|--------|--------|--------|--------|
| psychological_feature.n.01 | 22.81 | 24.95  | 23.11  | 22.08  |
| communication.n.02       | 19.72  | 20.09  | 18.27  | 20.97  |
| object.n.01              | 15.43  | 12.42  | 15.77  | 15.76  |
| measure.n.02             | 11.21  | 13.06  | 11.62  | 10.45  |
| group.n.01               | 7.43   | 8.20   | 7.99   | 6.75   |
| attribute.n.02           | 6.95   | 6.20   | 6.91   | 7.15   |
| causal_agent.n.01        | 6.56   | 6.12   | 6.49   | 6.71   |
| matter.n.03              | 4.60   | 3.92   | 4.92   | 4.46   |
| relation.n.01            | 4.18   | 3.96   | 3.89   | 4.48   |
| thing.n.12               | 0.62   | 0.49   | 0.48   | 0.79   |
| process.n.06             | 0.48   | 0.58   | 0.55   | 0.40   |
| set.n.02                 | 0.01   | 0.00   | 0.02   | 0.01   |
| **total**                | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S198.  Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|                              | g.     | p.     | i.     | h.     |
|------------------------------|--------|--------|--------|--------|
| cognition.n.01               | 16.78  | 14.43  | 17.24  | 16.89  |
| whole.n.02                   | 13.17  | 10.41  | 13.84  | 13.17  |
| event.n.01                   | 12.53  | 16.96  | 12.13  | 11.91  |
| definite_quantity.n.01       | 11.44  | 13.45  | 12.25  | 10.24  |
| message.n.02                 | 10.70  | 11.74  | 9.69   | 11.40  |
| person.n.01                  | 8.50   | 7.75   | 8.39   | 8.76   |
| location.n.01                | 5.99   | 4.78   | 6.04   | 6.20   |
| written_communication.n.01   | 4.83   | 6.39   | 4.56   | 4.72   |
| substance.n.01               | 4.71   | 4.08   | 5.16   | 4.43   |
| collection.n.01              | 4.14   | 3.53   | 3.97   | 4.43   |
| state.n.02                   | 3.93   | 4.02   | 3.88   | 3.96   |
| expressive_style.n.01        | 3.28   | 2.45   | 2.84   | 3.88   |
| **total**                    | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S199.  Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 0

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| N     | 89.12 | 89.85 | 88.81 | 89.30 |
| ADJ   | 2.85  | 2.40  | 2.85  | 3.00  |
| VERB  | 0.25  | 0.17  | 0.29  | 0.22  |
| ADV   | 7.78  | 7.58  | 8.04  | 7.48  |
| POS   | 22.18 | 22.01 | 22.40 | 21.93 |
| POS!  | 95.60 | 95.08 | 95.35 | 96.14 |

TABLE S200. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 2

|            | g.     | p.     | i.     | h.     |
|------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S201. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 2

|                    | g.     | p.     | i.     | h.     |
|--------------------|--------|--------|--------|--------|
| abstraction.n.06   | 62.96  | 62.20  | 62.04  | 64.53  |
| physical_entity.n.01 | 37.04 | 37.80  | 37.96  | 35.47  |
| **total**          | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S202. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| communication.n.02         | 24.22  | 24.98  | 23.40  | 25.09  |
| matter.n.03                | 17.61  | 19.00  | 18.06  | 16.48  |
| psychological_feature.n.01 | 15.09  | 15.63  | 14.77  | 15.33  |
| measure.n.02               | 13.94  | 11.99  | 14.37  | 14.05  |
| causal_agent.n.01          | 9.90   | 9.55   | 9.82   | 10.14  |
| object.n.01                | 9.17   | 8.74   | 9.75   | 8.51   |
| attribute.n.02             | 7.20   | 7.06   | 6.96   | 7.58   |
| group.n.01                 | 1.32   | 1.36   | 1.29   | 1.34   |
| relation.n.01              | 1.20   | 1.18   | 1.25   | 1.14   |
| thing.n.12                 | 0.20   | 0.29   | 0.19   | 0.19   |
| process.n.06               | 0.15   | 0.21   | 0.14   | 0.15   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S203. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| message.n.02               | 22.76  | 23.37  | 21.74  | 23.97  |
| substance.n.01             | 15.88  | 17.20  | 16.18  | 14.99  |
| definite_quantity.n.01     | 13.51  | 11.63  | 14.20  | 13.22  |
| person.n.01                | 10.48  | 9.98   | 10.31  | 10.89  |
| event.n.01                 | 10.28  | 10.83  | 10.47  | 9.82   |
| whole.n.02                 | 8.18   | 8.14   | 8.54   | 7.70   |
| cognition.n.01             | 5.99   | 5.98   | 5.46   | 6.74   |
| property.n.02              | 5.04   | 4.82   | 4.84   | 5.39   |
| substance.n.07             | 2.78   | 3.11   | 2.82   | 2.59   |
| state.n.02                 | 2.30   | 2.50   | 2.35   | 2.16   |
| written_communication.n.01 | 1.42   | 1.32   | 1.49   | 1.36   |
| location.n.01              | 1.38   | 1.11   | 1.60   | 1.17   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S204. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 2

|       | g.    | p.    | i.    | h.    |
|-------|-------|-------|-------|-------|
| N     | 57.64 | 58.43 | 58.70 | 56.54 |
| ADJ   | 12.30 | 12.26 | 11.26 | 13.13 |
| VERB  | 5.18  | 4.39  | 5.03  | 5.58  |
| ADV   | 24.87 | 24.92 | 25.00 | 24.76 |
| POS   | 33.82 | 34.28 | 33.13 | 34.22 |
| POS!  | 93.24 | 94.19 | 92.79 | 93.27 |

TABLE S205. Percentage of synsets with each of the POS tags used by Wordnet. The last lines give the percentage of words considered from all of the tokens (POS) and from the words with synset (POS!). The tokens not considered are punctuations, unrecognized words, words without synsets, stopwords and words for which Wordnet has no synset tagged with POS tags . Values for each Erdös sectors are in the columns **p.** for periphery, **i.** for intermediary, **h.** for hubs. TAG: 3

|             | g.     | p.     | i.     | h.     |
|-------------|--------|--------|--------|--------|
| entity.n.01 | 100.00 | 100.00 | 100.00 | 100.00 |
| **total**   | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S206. Counts for the most incident synsets at the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). Yes. TAG: 3

|                       | g.     | p.     | i.     | h.     |
|-----------------------|--------|--------|--------|--------|
| abstraction.n.06      | 70.13  | 70.16  | 69.75  | 70.44  |
| physical_entity.n.01  | 29.87  | 29.84  | 30.25  | 29.56  |
| **total**             | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S207. Counts for the most incident synsets one step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| psychological_feature.n.01 | 20.49  | 20.22  | 18.65  | 22.09  |
| measure.n.02               | 18.63  | 18.44  | 20.90  | 16.85  |
| object.n.01                | 17.84  | 17.64  | 17.63  | 18.08  |
| communication.n.02         | 17.05  | 18.35  | 17.05  | 16.59  |
| causal_agent.n.01          | 7.59   | 7.09   | 8.44   | 7.08   |
| attribute.n.02             | 6.27   | 6.68   | 5.93   | 6.40   |
| relation.n.01              | 4.44   | 3.68   | 4.12   | 4.96   |
| matter.n.03                | 3.39   | 4.03   | 3.30   | 3.23   |
| group.n.01                 | 3.25   | 2.79   | 3.08   | 3.55   |
| process.n.06               | 0.59   | 0.66   | 0.44   | 0.68   |
| thing.n.12                 | 0.46   | 0.41   | 0.44   | 0.50   |
| set.n.02                   | 0.01   | 0.00   | 0.01   | 0.01   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S208. Counts for the most incident synsets two step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

|                            | g.     | p.     | i.     | h.     |
|----------------------------|--------|--------|--------|--------|
| definite_quantity.n.01     | 19.75  | 19.62  | 22.05  | 17.90  |
| event.n.01                 | 18.38  | 17.75  | 16.70  | 19.99  |
| whole.n.02                 | 13.06  | 12.76  | 12.39  | 13.72  |
| person.n.01                | 9.14   | 7.89   | 10.19  | 8.74   |
| cognition.n.01             | 7.13   | 7.22   | 6.40   | 7.69   |
| message.n.02               | 6.85   | 8.03   | 7.16   | 6.16   |
| written_communication.n.01 | 5.54   | 5.50   | 4.60   | 6.33   |
| location.n.01              | 5.23   | 4.20   | 5.30   | 5.56   |
| message.n.01               | 4.69   | 5.33   | 5.29   | 3.97   |
| state.n.02                 | 4.14   | 4.37   | 3.98   | 4.20   |
| land.n.04                  | 3.42   | 4.06   | 3.61   | 3.02   |
| substance.n.01             | 2.67   | 3.28   | 2.33   | 2.73   |
| **total**                  | 100.00 | 100.00 | 100.00 | 100.00 |

TABLE S209. Counts for the most incident synsets three step from the semantic roots in each Erdös sector (**p.** for periphery, **i.** for intermediary, **h.** for hubs). TAG: 3

**H.   Differentiation of the texts from Erdös sectors**

**1.   Snapshots of 1000 messages**

## 2. Snapshots of 2000 messages