DRIVING FORCES

LABOV (2011)

MANISHA GANDHI

WHAT COULD THESE FORCES BE?

Universal factors:
• Maximize dispersion within a subsystem
• The principle of least effort
• Rule simplification

An assumption that language change will move through speech community in uniform fashion.

Change often characterised as high-prestige norms which spread downwards
• Upper class not typically originator of new feature – imported from external language or dialect

MARTHA’S VINEYARD

Study of vowel centrality as a marker of identity (Labov 1963)
• a driving force for contrast within the community

For local identity to be a driving force, there must be a correlation between degree of identity and the advancement of the linguistic change.

• Overt local identity
  - social awareness of feature leading to stigmatisation
  - awareness may also prevent dialect levelling

SOCIAL NETWORKS

Belfast study (Milroy and Milroy 1978):
• Dense, multiplex networks preserved dialect features
• Weak ties to outside networks led to dialect levelling

Leaders of change have a combination of high density of contacts within the network and a high proportion of contacts outside of it.

THE NORTHERN CITIES SHIFT

Eckert (2000) looked at the correlation between identification with an adolescent social group and the backing of vowels.
• Backing of /e/ and /æ/ - ‘Burnouts’ show more extreme backing than ‘Jocks’, no gender difference
• Other vowels – no social group difference, but significant gender difference

Sound change seems to be driven by association with a community of practice.
The backing of /e/ and /æ/ are a way of negotiating membership for that particular group.

INDIVIDUAL VARIATION

How do individuals negotiate complex community variation to evoke different social identities?
• Hindle (2000) mapped vowel system of a Philadelphian at work, in her home environment and with friends

The individual uses style shifting to further their social status.
Is the overall direction of language change driven by the culmination of individual acts of identity?

Necessary to also look at common language between people who are not in face-to-face contact.
ACTS OF IDENTITY

- New linguistic forms are associated with the originating group, as opposed to other groups
- When the social conflict is resolved, the form is adopted by wider society

A individual modifies their verbal behavior to resemble the group so they can:
- Identify with that group
- Make their contributions sufficiently powerful
- Gain adequate opportunities for learning

LINGUISTIC CHANGE & VARIATION

The LCV project in Philadelphia (Hindle 1978) took samples from ten neighbourhoods, with range of social class and ethnicity.

THE RELATION OF SOCIAL CLASSES

- The social classes in the middle of the spectrum – the lower middle and upper working classes – have the highest rate of change
- The lower working class is not affected by the change
- The correlation between change and age runs parallel for four of the six class groups

The results show that linguistic change can not only be explained by individual acts within a group.

THE RATCHET PRINCIPLE

Lieberson (2000) study into baby names:
- Girls names ending in -a increased between 1918 and 1987 while those ending in -ie, -s and -n decreased.

Parallel between fashion and sound change:
- Limit to the length at which something can rise or descend.

When a feature of social behaviour is regarded as new, forms which move towards that feature will be seen as fashionable.

When extremity is reached, the change will move in a different direction.

GENDER AS A SOCIAL FORCE

Women are usually ahead in linguistic change by a full generation.
- Result of language transmission from mothers and advancement of form by daughters
- Men continue to use the forms they first acquire

The gender gap narrows after a few generations, as the form becomes established in the language.

In cases of male-dominated change, the advancement of a form inevitably occurs more slowly.
GENDER AS A SOCIAL FORCE

The raising of one NCS vowel first appeared to diffuse from largest city to next largest city.

Distribution was in fact very uniform over a large area
- Abrupt difference in stage of vowel change at north/midland border

Uniformity of NCS:
- Ratchet principle could apply, but more evidence is needed
- Does not include rural areas
- Could be accounted for by desire of or rejection for conformity

CONCLUSION

Local studies show correlations between various factors, therefore all social factors and levels of communication must be taken into account:
- (Overt) local identity
- Willingness to conform
- Social class
- Gender
- Social networks
- Individual variation

Further studies into the Northern Cities Shift may change the perception of complete uniformity across the area.

RESPONSE

- Importance of asking whether change is driven by individuals, social networks or universal forces.
- Gender difference can be seen in NCS study – girls were more advanced in earlier forms of shift, but no gender difference in later stage.
- Ratchet principle – evidence of occurring more widely in language?
- Could types of driving forces be combined to predict future changes?

SLANG 16.06.2012

James Milroy & Lesley Milroy (1985):

Linguistic Change, Social Network And Speaker Innovation
Outline

- Research of James & Lesley Milroy
  - Phonological System of Belfast
- Examples
  - Micro-level example
  - Macro-level example
- Conclusion
  - Of J. & L. Milroy
  - My own opinion

Linguistic change

- Two approaches:
  - States of language
  - Quantitative linguistics

Linguistic change

- Result of the operation of regular phonetic rules
- Controlled by extra-linguistic factors
  - Age
  - Sex
  - Social status
  - Geographical location of speaker
- Spontaneous speech affected earlier than more careful styles

Linguistic change

- Every living language undergoes constant change
- Visible in different states of languages
- Caused by successful speaker innovation

Main fields

- Universal Constraints
  - Universal rules
- Transition Problem
  - Intermediate stages between two states
- Embedding Problem
  - Context of change

Main fields

- Evaluation Problem
  - Reactions caused by change
- Actuation problem
  - Why does the change take place
    - In the language/dialect it does
    - At the time it does
    - Not in other languages at the same time
    - At another time in the same language
- Those fields do overlap
Another Study

- Penelope Eckert
- Back vowel chain shift in Soulatian Gascon
- Change in waves
- One word class at a time
- Items lagging behind as stylistic variants
- Earlier and later states may overlap

Speaker Innovation

- “It is not languages that innovate it is speakers who innovate.”
- May fail to diffuse beyond speaker
- May diffuse into a community with which the innovator has contact with and go no further
- May then diffuse subsequently into other communities via a further innovator who has ties with both the relevant communities

Speaker Innovation

- May spark off a chain reaction in a language system
- Innovators can not be located precisely
  - Change may have had a long history elsewhere
  - Observation may start at any point in a cycle of change

Networks

- Weak ties
- Strong ties
- Bridges
  - Normally weak ties
  - Only connection between two networks

Networks

- Strength of a tie is a combination of
  - Amount of time
  - Emotional intensity
  - Intimacy
  - Reciprocal services

Figure 2
A bridge between two networks. —— Weak ties, —— strong ties.
Role of Speakers

- Innovators:
  - More likely to bring inventions into networks
  - Many weak ties
  - Marginal to the group
- Early adopters:
  - More likely to adopt changes
  - Many strong ties
  - Very difficult to distinguish

Researches of James & Lesley Milroy

- Study of Hiberno-English (Irish English)
- In Belfast and regions nearby

Phonetic System of Belfast

- Representation of phonetic range of /a/ in Belfast vernacular

<table>
<thead>
<tr>
<th></th>
<th>Met</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[æ]</td>
<td>[æ]</td>
</tr>
</tbody>
</table>

Table 1: Simplified representation of phonetic range of /æ/ in Belfast vernacular using key words

- Backing of /a/
  - Led by east Belfast males
  - Carried by younger female group in the catholic Clonard community

Macro-Level example

- England
  - Weak tie situations
  - English changed since the 12th century
- Iceland
  - Strong tie situation
  - Icelandic altered little
  - Sardinia ↔ Sicily
Conclusion of J. & M. Milroy

- Innovations transmitted via weak ties
- Many weak ties → change rapid
- Prestige not that important
- Innovation vs. Change
- Innovators vs. Early Adopters

Conclusion of J. & M. Milroy

- Limitations
  - Innovation may trigger a series of changes
  - Candidates for innovation?
  - What makes an innovation successful?
  - How does that innovation diffuse and become changes?

My own opinion

- Long & Hard to read
  (at least as non-native speaker)
- Interesting topic
- Noticed even some changes myself

Social network and social class: Toward an integrated sociolinguistic model

Lesley MIRROY, James MIRROY

Presentation: Alina Ladygina

The purpose of the work

- Understanding the role of social network and social class in patterns of linguistic variation
- Suggesting a kind of an integrated model

Two theoretical platforms

SOCIAL CLASS

A CONCEPT DESIGNED TO ELUCIDATE LARGE-SCALE SOCIAL, POLITICAL AND ECONOMIC STRUCTURES AND PROCESSES

SOCIAL NETWORK

RELATES TO THE COMMUNITY AND INTERPERSONAL LEVEL OF SOCIAL ORGANISATION
Advantages of these models

<table>
<thead>
<tr>
<th>Social class</th>
<th>Social network</th>
</tr>
</thead>
</table>
| • Based on conflict, division, and inequality best accounts for many of the patterns of language variation  
  "Language represents a form of social and cultural capital that is convertible into economic capital" | • Less abstract mode of analysis  
  • Studying small ethnic groups |

Characteristics of networks

<table>
<thead>
<tr>
<th>Structural</th>
<th>Interactional</th>
</tr>
</thead>
</table>
| • Shape and pattern of network  
  • Properties: density | • Content of ties  
  • Properties: multiplexity, durability, intensity of ties etc. |

Close-knit network

<table>
<thead>
<tr>
<th>Characteristics of networks</th>
</tr>
</thead>
</table>
| • Relatively dense  
  = everyone would know everyone else  
  • Multiplex  
  = the actors would know one another in a range of capacities |

Close-knit networks – does it exist in urban communities?

Due to cultural and economical diversity that cities permit, we can consider urban close-knit networks

<table>
<thead>
<tr>
<th>Characteristics of networks</th>
</tr>
</thead>
</table>
| • Newer emigrants' communities  
  • High-educated individuals |

Strong and weak network ties

<table>
<thead>
<tr>
<th>Characteristics of networks</th>
</tr>
</thead>
</table>
| • “…Innovations between groups are generally transmitted by means of weak rather than strong network ties”  
  • Spread of uvular [r] across national boundaries in northern European cities, appearance of similar developments in unrelated languages cannot be explained by strong ties |

Belfast study (Mirroy&Mirroy)

<table>
<thead>
<tr>
<th>Characteristics of networks</th>
</tr>
</thead>
</table>
| • Object of study: spread of backing variants of /a/ and raised variants of /e/ from protestant East Belfast into the Clonard – a West Belfast Catholic community  
  • Sociolinguistic approach: variables – sex, social class, social network |
Belfast study (Mirroy&Mirroy)

[before changes]

<table>
<thead>
<tr>
<th>West Belfast</th>
<th>East Belfast</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a/ - front, short realization</td>
<td>/a/ - backed, long realization</td>
</tr>
<tr>
<td>/e/ - low, short realization</td>
<td>/e/ - raised, long realization</td>
</tr>
</tbody>
</table>

Influence of Ulster-Scots-speaking dialect area

---

Belfast study: results

- Backed variants of /a/ are associated with male, vernacular inner-city speech and are more closely correlated with network structure for men.
- Raised variants of /e/ are associated with women (middle class), correlation between network structure for women.

\[\text{Changes due to high correlation with network structure}\
\]

\[\begin{array}{ll}
| Change & Network Structure |
|--------|-------------------|
| Male & Raised (middle class) |
| Female & Backed (low, short realization) |
\end{array}\]

Belfast study: conclusion

- Vernacular speakers associated more strongly with the innovation are in each case those for whom the vowel functions least prominently as a network marker.
- Close-knit network is a conservative force, weak ties network promotes changes.

---

Black and white research (Ash&Myhill 1986)

- Use of morphosyntactic variants by four groups:
  1. blacks (B)
  2. blacks who have considerable contact with whites (WBs)
  3. Whites
  4. whites who have considerable contact with blacks (BW)

---
### Black and white research (Ash & Myhill 1986)

- Explanation of these effects
  - Ash & Myhill: in terms of prestige of white norms
  - Mirroy & Mirroy: weak ties theory

### A link between social network and class

- Observation: speakers, whose ties to a localized network are weakest, are frequently found in the middle-class or upper-working class areas of cities
- Class-specific network structures emerge from large-scale social and economic processes that also influence on social mobility

### A link between social network and class

- Fischer, Cochrad at al. considered the relationships between the variables class and network (German, Sweden, Wales, USA)
  - Effects of education and affluence in affording access to a socially and geographically wider range of contacts

### A link between social network and class

- Kroch (1987) and Labov (1980)'s findings:
  - In British and American societies close-knit, territorially based networks are associated with lowest classes and with upper-classes
  - Network and class analyses compliment each other

### Basis of an integrated model

- Thomas Højrup’s life-models
- Hypothesis: economic positions of people, their education and professional activities split them into subgroups – the members of such groups share lifestyles.

### Life-model 1

- Private enterpreuners, producers
- Family-centered network
- Members put themselves to work to gain independence, that’s why they don’t have leisure time
- Business bind them into a cohesive production unit
Life-model 2

- Wage earners
- Their families are separate from the wage earner's work => more weak ties
- Solidarity between workers
- Proletarian traditionalism vs. privatized workers (Lookwood 1989)

Life-model 3

- High professional and managerial employees
- Career is one of their purposes => competitiveness => few weak ties
- Family is supportive force

An integrated model

- Due to the knowledge of life-model, it is possible to predict a network type and then to suppose the probability of linguistic changes

An integrated model

- Starting point: information about socioeconomic position
- Second level: life-model
- Strength ties prediction
- Hypothesis about probability of linguistic changes

An integrated model

- Configuration of network structure depends on socioeconomic factors => importance of considering social network and social class together
- Strong ties network functions as a conservative force, weak ties communities favour linguistic changes

Conclusion
• Advantages of the new model: using socioeconomic factors it predicts not only social differences, but also different kinds of network. Thus, the probability of linguistic changes can be supposed.

• The model looks very logic, but too general for linguistic studies
• In my opinion, it is important to remember that the adoption of dialect norms is the way of integration and sometimes there are no correlation between economic position and linguistic changes.

Ex.: pronunciation of unstressed Russian "o": [a] in Moscow vs. [o] in the Urals

Vernacular Language Loyalty and Network Structure
By Milroy & Margrain
Presentation: Franziska Burger

Introduction(1)
- "The individual creates his system of verbal behavior so as to resemble those common to the group or groups with which he wishes from time to time to be identified" ~ Le Page(1968)
- language of an individual ↔ the social groups he/she belongs to (e.g. based on age, sex, social class)
- But: often differences within these variable social groups

Outline of the Presentation
- Introduction
- The Study
  - The Communities
  - The Concept of Social Network
  - The Network Strength Scale
  - Statistical Analysis Methods
  - The Linguistic Variables
  - Results
- Conclusion
- My Opinion

> severe differences in language despite speakers being of the same sex, age and from the same area:

<table>
<thead>
<tr>
<th>TABLE 1: Scores for new phonological variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index names</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

1-7 are color bands, 0-9 represents percentages. A higher score indicates a relatively short approach to another's accent (see Milroy & Milroy, 1981 for details of the method).
Introduction (2)

- Belief:
  - Individual's network of relationships and social groups to which he/she belongs are at different levels of abstraction
  - Behavior of individuals does not depend entirely on position in society
  - Behavior can be explained by studying interactions of individuals
- In this study: Behavior = linguistic behavior of 46 Belfast working-class speakers

The Study

- Hypothesis: "closeness to vernacular speech norms correlates positively with the level of individual integration into local community network"
- Vernacular: "expressed or written in the native language of a place"
- Integration: "to have a contracted sets of relationships and adopted sets of values which mark out the ‘local team’ as an entity separate from the wider provincial or national community"

The Communities

- three Belfast communities: Ballymacarrett, Clonard, Hammer
- self–contained
- suffering from social malaise
- located in traditional working–class areas
- rough areas, ghettos
- isolated from mainstream of upward mobility
- inhabitants are victims of "pauperization"
- "urban villages"

The Concept of Social Network

- looking at relationships between people
- makes it possible to study "integration into a community"
- powerful capacity to explain social behavior
- Elizabeth Botts research: networks form a bounded group capable of imposing normative consensus on its members
- study focuses on explaining relationship between integration and language use, rather than just describing correlations.

Constructing the NSS

- NSS = Network Strength Scale
- scale to measure density and multiplexity of an individual’s network
- The indicators…
  - ...must reflect conditions that have been found important in predicting the extent to which normative pressures are applied by the local community
  - ...must be recoverable from the data collected in Belfast and easily verifiable.

NSS Indicators

- Five indicators that express density and multiplexity indirectly:
  - Membership of a high density, territorially based cluster.
  - Having substantial ties of kinship in the neighborhood.
  - Working at the same place as at least two others from the same area.
  - Same place of work as at least two others of the same sex from same area.
  - Voluntary association with work mates in leisure hours.
Statistical Analysis Methods(1)

- Correlation
  - measure of the linear statistical dependence of two variables
  - correlation coefficient \( r \) denotes the degree of dependence
  - \(-1 \leq r \leq 1\)

Statistical Analysis Methods(2)

- \( t \)-test
  - enables to test for the reliability of correlation coefficient: is there an actual relationship between the variables?
  - influenced by the number of individuals tested
  - \( \alpha \) denotes significance level (1% or 5%)
  - produces a \( p \) = probability of \( r \) to occur by chance
  - if \( p < \alpha \) result is statistically significant

Statistical Analysis Methods(3)

- Analysis of variance (ANOVA)
  - analyzes the influence of one or more factors on a variable
  - in this case: influence of group (age, sex, area) and network strength on linguistic variables

The Linguistic Variables

- linguistic variables are quantified by their occurrence in two types of speech
  - Interview with the experimenter
  - Talking to a friend or relative

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scores measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>degree of retraction and backing (hat, man)</td>
</tr>
<tr>
<td>(al)</td>
<td>degree of fronting and raising first element (pipe, line)</td>
</tr>
<tr>
<td>(i)</td>
<td>degree of lowering and centralization (hit, kill)</td>
</tr>
<tr>
<td>(th)</td>
<td>variable deletion of intervocalic (8) (mother, bother)</td>
</tr>
<tr>
<td>(s)</td>
<td>tip-rounded variant [ş] that, mud</td>
</tr>
<tr>
<td>(a)</td>
<td>Alternation between [a] and [u] realizations (would, pull)</td>
</tr>
<tr>
<td>(e)</td>
<td>Monosyllables (bet, peck)</td>
</tr>
<tr>
<td>(e)</td>
<td>polysyllables</td>
</tr>
</tbody>
</table>

Results

- for correlations: subjects divided into subgroups according to sex, age, area and age by sex
- for ANOVA: two-way ANOVA for influences of sex and network, age and network and area and network on linguistic variables scores
- variables (a), (th), (s), (e), (e) analyzed separately because of significance reached
- finally analysis of distribution of NSS scores in different subgroups

Correlations for (a) (th) (s) (e) (e)
**Divided by Sex**

**TABLE 1.** Correlations between network and linguistic scores calculated separately for male and female subjects.

<table>
<thead>
<tr>
<th>Variable</th>
<th>sex</th>
<th>t</th>
<th>N</th>
<th>level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>M</td>
<td>1.85</td>
<td>10</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2.34</td>
<td>10</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>(b)</td>
<td>M</td>
<td>1.39</td>
<td>22</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2.63</td>
<td>22</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>(c)</td>
<td>M</td>
<td>2.59</td>
<td>22</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2.65</td>
<td>22</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>(d)</td>
<td>M</td>
<td>2.72</td>
<td>22</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2.68</td>
<td>22</td>
<td>p &lt; .05</td>
</tr>
</tbody>
</table>

**Divided by Area**

**TABLE 2.** Correlations between NSS scores and LV scores calculated separately for three areas.

**Divided by Age**

**TABLE 3.** Correlations between NSS scores and LV scores calculated separately for three age groups.

**Divided by Age and Sex**

**TABLE 4.** Significant correlations between NSS scores and LV scores calculated separately for age groups and both cases.

**ANOVA for (a) (th) (la) (e1) (e2)**

- NSS scores divided: high(4,5) and low(0–2)
- two-way ANOVA for unequal groups
- sex and network: none of the LV scores showed interaction between sex and network
- area and network: significant interaction only for (a), (a) scores are higher for high NSS scores in Ballymacarrett and the Clonard, but (a) isn’t a network marker in the Hammer
- age and network: none of the LV scores showed interaction between age and network

**Results for (ai) (a1) (a)**

- social meaning only for limited sub-groups
- none show overall correlation with NSS scores

<table>
<thead>
<tr>
<th>Linguistic Variable</th>
<th>sig. relationship to NSS scores only...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>for older age group</td>
</tr>
<tr>
<td>(a1)</td>
<td>in Ballymacarrett</td>
</tr>
<tr>
<td>(a)</td>
<td>in the Hammer</td>
</tr>
</tbody>
</table>

=> overall, results show that even in a single community there are many differences in the way speakers use parts of language as symbols of community loyalty
Distribution of NSS Scores(1)
- Testing for significant differences in the distribution of NSS scores between areas, sexes and age groups
- Sex differences
  - Men score significantly higher than women on NSS
  - Sex by age: no significant interaction
  - Sex by area: Ballymacarrett men score substantially higher than NSS, B. women lower
  - Sex by age by area: male and female NSS scores vary between area samples with each age group

Distribution of NSS Scores(2)
- Area differences
  - NSS scores of individuals from the Hammer substantially lower
  - Area by age: in the Clonard higher NSS scores for younger group and vice versa in Ballymacarrett
  - Area by age by sex: young male and female groups have higher NSS scores
- Age differences
  - Younger group scores significantly higher on the NSS than the older group

Conclusion(1)
- Possible to devise measure of integration and show that language is related to this
- Sociolinguistic structure is woven in a complex way throughout the community with different phonological elements being associated with various social groups
- Many factors work together in controlling linguistic scores
- Changes in social structure could cause breakdown of sex- and network-linked vernacular norms

Conclusion(2)
- Speakers who use a high level of a vernacular variable do not necessarily show the closest correlation with network
- Characteristic rural and working-class network structure is an important mechanism for the maintenance of vernacular norms
- Less-dense, more uniplex network structure is associated with the urban middle classes, studies have shown movement away from vernacular in these social groups

My Opinion
- “The individual creates his system of verbal behavior so as to resemble those common to the group or groups with which he wishes from time to time to be identified”
  − Le Page(1968)
- Network structures work as norm-enforcement mechanism
- NSS seems really simple, would a different, more detailed scale yield the same results?
- Only a rather small number of individuals from each area used, maybe different results for more people

Language Variation on Internet Relay Chat: A social network approach
By John C. Paolillo
Presented by Frederike Klein
Content

- Introduction
  - IRC
  - Language Variation & Tie strength
  - Language Variation on #india
- Study
  - Results
    - Social network analysis
    - Correlation with linguistic variables
- Conclusion

Introduction

- Arrival of the Internet
- Problem for linguistics: Person’s identity
- Network studies mostly for social interactions
- This study: social network analysis of linguistic variations

IRC

- Internet Relay Chat
- Channel
- Users communicate by sending messages to the channel
- #india

| #india (iranbeli) has joined channel #india <who? you don’t wanna
| *Galli talks to JP there is no one talking through the net anymore... u
| idk. Bhawani is speaking to u & that means its all in your nisty.
| *sudhakar is now known as Prashant

Language variation & tie strength

- Milroy & Milroy: higher frequency of contact → greater multiplicity of social ties
- Strong vs. weak ties
- Tie strength according to Mark Granovetter:
  - Work scarce → dense, multiplex, local-based strong-tie networks
  - Work plentiful → loose, weak-tie networks

Language variation on #india

- "r" & "u" instead of "are" & "you"
- Abbreviations
- "z" instead of "s" (infood) again... it was long at first
- Code-switching English – Hindi (and other Indian languages)
- High incidence of obscenity
Study

- Hypothesis:
  - Should variables find used more often by members of strong-tie networks
- Data-collection: record one 24h-period
- Exclude all server turns and messages to bots
- Track identities
- Take the 100 most frequent users
- Analyse frequency of contacts with the other users

Social network analysis

- 16 groups according to addressers and speakers factors
- Tie strength analysed via frequency of contacts
- Group categories:
  - Central core = K
  - Outer core = G, H, J
  - Peripheral = B, C, E, I, L
  - A, N, P
  - Outer periphery = F, M, D, O

Correlations with linguistic variables

- Against hypothesis:
  - K uses variables less frequent then the other groups
  - Exception: obscenity

Correlations with language variables

- K avoids code-switching, G favours it the most
- Possible reason: attention-getting, but members of K are already popular, so they don’t need more attention, group G is less stable in the social position -> attention is helpful

Distribution of „u“

Distribution of „r“ & „z“
Results

- Difference in use of every variable
- K uses all (except obscenity) less than the other groups
  -> contrary to hypothesis
- IRC is embedded in a huge set of influences
- Developing of weak ties very easy in IRC
- Granovetter: weak ties enforce norms just like strong ties but in a larger context

Conclusion

- Definitely relation between tie strength and linguistic variables
- More studies needed to take a look on the distribution of these variables
- Larger social context!
- Network simulation also useful for sociolinguistics not only for social studies

What I think...

+ Studies on communication via Internet will get more and more important
+ Language variation is very interesting especially in social networks
- only one channel observed
BUT: Kind of a starting point for further research