# Formalising Symbolic Interactionism

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# Formalizing symbolic interactionism

Wouter de Nooy

**Abstract**

Symbolic interactionism is generally known as a theory typically linked with a qualitative methodology. Recent developments in quantitative social network analysis, however, can analyze processes theorized within this theoretical tradition. Thick description can be complemented with statistical analyses of network structure and dynamics, expanding the scope and detail of results. This paper argues that social network analysis can bridge the divide between qualitative and quantitative analysis. Results from a long-term project on literary criticism substantiate the argument and illustrate a major development in social network analysis.

**Key words:** symbolic interactionism ; social network analysis ; actor-based models ; literary criticism

## Introduction

Although a quantitative school exists in this tradition (Herman-Kinney and Verschaeve 2003: pp. 222-224), symbolic interactionism is known for its preference of qualitative over quantitative methods. In this paper, I aim to demonstrate that the mathematics and statistics underlying social network analysis are suitable for analyzing processes theorized in symbolic interactionism. Recent developments in social network analysis offer a formalized quantitative approach to symbolic interactionism. Thus, social network analysis can bridge the divide between qualitative and quantitative analysis, fulfilling a promise made decades ago (Collins 1988). In addition, social network analysis helps translating the theoretical or conceptual frame that symbolic interactionism is according to Sheldon Stryker (Stryker 2008: p. 16), into a testable theory.

I substantiate my claim with results from research into literary style labels. For many years, I have investigated the social determinants and effects of the categorization and labelling of literary works and authors as literary styles or movements by literary experts, e.g., Marxist Literature or Ironic Realism. I refer to the categorizations and labels as literary classifications. The development of my research mirrors an evolution in social network analysis generally and, more specifically, stages in the application of social network analysis that are commonly found among researchers new to this methodology. The secondary aim of this paper is to assist newcomers to understand the current developments within the field of social network analysis.

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**Meaning and interaction**

Because of its canonical status in the social sciences, it is not necessary to discuss symbolic interactionism in detail here. The most salient points for my aims were stated succinctly by Herbert Blumer in the book that introduced and defined symbolic interactionism (Blumer 1969: p. 2-5):

1. 'Human beings act toward things on the basis of meanings which these things have for them.'
2. 'The meaning of a thing for a person grows out of the ways in which other persons act toward the person with regard to the thing.'
3. 'The use of meanings by the actor occurs through a process of interpretation.'

I will refer to these principles as Blumer's statements 1 to 3.

According to these principles, human beings are involved in a dynamic process of interaction and construction of meaning (interpretation). It addresses a classic problem in sociology and anthropology, viz., classification as a social activity or product, which was introduced in sociology by Emile Durkheim and Marcel Mauss (Durkheim and Mauss 1903). In contrast to the latter, symbolic interactionism claims that meaning should be studied at the level of interacting individuals rather than at the societal level: a micro-approach. Furthermore, symbolic interactionism claims that individuals are (at least to some extent) free to interpret the meaning of the interaction that they witness, which allows for variation in responses to action and events.

The principles of symbolic interaction are highly relevant to the processes in literary criticism that I have investigated. Blumer's statements can be applied to my research topic in the following way.

1. 'Human beings act toward things on the basis of meanings which these things have for them.'

The things that I investigate are literary texts: magazine articles, books, or entire body of works. The meanings that are central to my research are classifications according to literary style and literary quality that authors and critics attribute to their peers' work.

2. 'The meaning of a thing for a person grows out of the ways in which other persons act toward the person with regard to the thing.'

In my research the persons are literary authors and critics. They act toward each other with regard to literary texts when they cooperate, e.g., being editors for the same literary magazine or publishing at the same publishing house, or when they publish reviews and comments on each other's work. The acts are hypothesized to affect meaning, i.e., the style group to which the author's work is attributed and the perceived artistic quality or valence of the author's work. The two types of constructed meaning – classification and value judgement – were published in reviews and essays by the authors, critics, and scholars involved at that time. They can be considered representative for meanings as they were constructed there and then.

3. 'The use of meanings by the actor occurs through a process of interpretation.'

Content analyzing reviews and coding literary classifications and evaluations of literary quality, the researcher inevitably interprets meanings. It is important, however, to note that the researcher is interpreting interpretations; literary critics and authors acknowledge that interpretation is central to reviewing and defining literary style groups or movements. Because we may safely assume that interpretation links acts to judgements and classifications, I do not refer much to Blumer's third statement in the rest of this paper. It is worth pointing out that the same books could and sometimes were reviewed positively by some but negatively by others. In addition, highly overlapping sets of authors received different style names. The freedom of interpretation postulated in symbolic interactionism is clearly at work here and they are registered as adequately as possible by the researcher. In addition to the interpretation of the books, I expect that authors and critics assign meaning to patterns of interaction (cf. Blumer's second statement) and general social attributes of their peers as well. This is an implicit and unintended kind of interpretation, which nevertheless surfaces in the names of some style groups, e.g., Feminist Literature or Revisor Prose (*Revisor* being the name of a literary magazine). In this way, overall social structure, which is emphasized in structural symbolic interactionism (Stryker 2008), can be incorporated in the analyses.

Literary classification and evaluation, then, seem to offer a very good example of a group process in which interaction produces classifications and communicated classifications affect subsequent interaction. Interaction and shared affiliations create shared identities, which are labelled by names of styles and movements. This resonates with labelling theory, which is concerned with the social construction of labels and identities (Becker 1963). Shared identities produce both solidarity and hostility, which are reflected in positive judgments within groups and negative judgments among groups, which may affect the options open to authors for publishing their work in particular magazines, reinforcing the pattern of shared affiliations, and so on.

**Data**

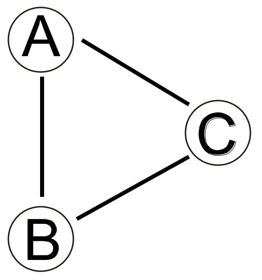
My case study pertains to literary authors and critics in The Netherlands, 1970s. This is an interesting decade because it witnessed a lively debate on styles and movements among young literary authors. Data were collected in a series of steps. First, all publications were collected in which groups of young authors were labelled as a literary style or movement in the 1970s. Note that these are contemporary classifications, proposing labels as they were constructed at that time.

Second, the collected literary classifications were compared and the authors who appeared more often than incidentally were selected. This yielded 28 key actors. Third, data on their book publications and contributions to literary magazines were collected. Fourth, all reviews and interviews with these authors were collected, identifying the critic (and paper or magazine) and content analyzing them, coding the final judgment (positive, neutral, negative) and collecting names of authors to which the critics referred in their reviews. Finally, the most prolific (12) critics were selected from these reviews and all evaluations among them were collected and content-analyzed from reviews and interviews. In all, over 500 judgements were coded. For more information about the data collection, see (de Nooy 1991; de Nooy 1999).

**Networks and clusters**

Several network theorists and analysts are convinced that structures of relations are fundamentally related to social categories as they are perceived by the people involved, e.g., Harrison White’s work on catnets (White 1965) and identity (White 1992), Ronald Breiger on the association between the material and cultural world (Breiger 2000), or John Mohr’s work on meaning structures (Mohr 1994; Mohr 1998). But how can we establish this relation?

In a first attempt, I tested whether the clustering of authors according to literary style reflects their grouping according to where they publish (material production) and how they are evaluated by critics (symbolic production). The focus is on Blumer’s second statement: ‘The meaning of a thing for a person grows out of the ways in which other persons act toward the person with regard to the thing.’ It is worthwhile to note that my idea is in line with the sentiments of the authors, critics, and literary scholars at that time. Some literary style groups received names that directly pointed toward particular literary magazines, e.g., *Revisor*-prose, referring to the work by some of the editors and contributors of the literary magazine *De Revisor*. In this sense, I was guided by the discourse at that time, which is a common thing to do in qualitative research.



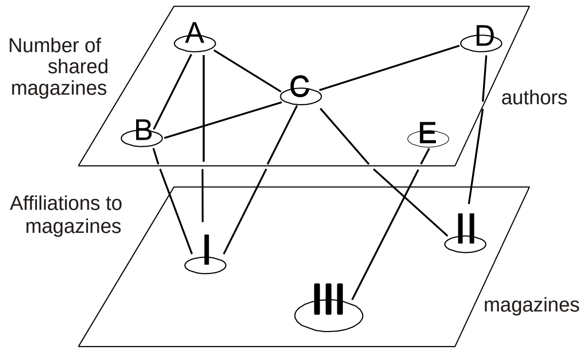




**Figure 1** - Two style groups as a network.

**Figure 2** - Cooperation in magazines as a network.

But why use network analysis? In retrospect, the answer is that both literary classifications and other activities by or aimed at selected authors can be represented as networks. Classifications according to literary style can be easily conceptualized as networks with (positive) lines connecting authors that are assigned to the same style group

Figure 1). Networks of cooperation, e.g., publishing in the same literary magazines

Figure 2), and networks around literary examples, address two levels: a level containing the magazines, literary examples, and so on, and a level containing the authors and critics. The ties between the authors/critics on the one hand and the magazines (etc.) on the other hand, can be transformed into ties among the authors/critics, e.g., the number of shared magazines. In social network analysis, this is known as inducing a 1-mode network from a 2-mode network (de Nooy et al. 2005: 104-6). In other words, I used SNA as a clustering technique. Statistical clustering techniques could also have been used but SNA seemed to be more flexible because all relevant contexts could be represented as networks, which could then be compared.

The analysis boils down to comparing the classification network to the other networks, one at a time. I compared the classification network both with the social networks in the preceding and following three months to obtain an indication of the degree to which the classification could be the cause or consequence of interaction patterns. The more ties are present (or of equal valence) in two networks, the more they are similar. The similarity of networks can be calculated as the weighted number of ties that are present (and positive) or absent (or negative) in both networks. I used a simple type of matrix correlation coefficient ($r_{mb}$) proposed by Arabie et al. (Arabie et al. 1978) and modified by Carrington et al. (Carrington et al. 1980). More advanced measures are available such as the Quadratic Assignment Procedure or MRQAP (Hubert and Baker 1978), which has its problems (Krackhardt 1992) and solutions (Dekker et al. 2007).

**Table 1 -** Correlation between literary classifications and network structure.

| Classification (publication year) | Kind of network Magazines[1] | | Editors[2] | Publishing houses[3] | | Literary models[4] | | Comparisons[5] | | Evaluations[6] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | before | after | before | before | after | Before | after | before | after | before | after |
| Peelers (1973) | 0.13 | 0.07 | -0.09 | 0.68 | 0.83 | -0.47 | -0.32 | . | | -0.17 | 0 |
| Gee1 (1974) | 0.67 | 1.0 | 0.64 | . | 0.41 | . | . | 0.58 | . | 1.0 | . |
| Trolsky (1975) | 1.0 | 0.76 | . | . | . | -0.35 | -0.25 | 0.61 | . | . | 1.0 |
| Peeters/Kaal (1975) | 0.11 | 0.02 | 0.52 | -0.16 | 0.28 | 0.14 | 0.10 | 0.28 | 0.61 | -0.01 | . |
| Goedegebuure (1976 | 0.15 | 0.15 | 0.71 | 0.16 | 0.07 | 0.07 | -0.06 | 0.27 | 0.39 | -0.01 | -0.16 |
| Hogeweg (1977) | 0.30 | 0.57 | 0.17 | 0.06 | -0.23 | 0.10 | . | -0.41 | 0.71 | - | . |
| Brokken (1977) | 0.38 | 0.59 | . | 0.21 | 0.02 | -0.02 | 0.35 | -0.10 | 0.41 | 0.31 | . |
| Nuis (1977) | 0.48 | 0.17 | 0.46 | 0.24 | 0.24 | -0.16 | -0.10 | 0.32 | 0.39 | 0.40 | 0.75 |
| Brouwers (1979) | 0.21 | - | 0.28 | 0.40 | - | 0.17 | - | . | - | - | - |
| De Rover (1979) | 0.21 | - | 0.13 | 0.13 | - | 0.13 | - | 0.42 | - | 0.73 | - |
| Peeters (1979) | 0.42 | - | 0.43 | 0.23 | - | 0.08 | - | 0.71 | - | 0.49 | - |
| Mean | 0.37 | 0.42 | 0.36 | 0.22 | 0.23 | -0.03 | -0.05 | 0.30 | 0.50 | 0.34 | 0.40 |

[1] Network of common literary magazines: publications.

[2] Network of common literary magazines: editors.

[3] Network of common publishing houses.

[4] Network of shared literary predecessors.

[5] Network of direct comparisons between authors or critics in the case.

[6] Network of evaluations among authors and critics in the case.

Table 1 presents the results (de Nooy 1991): the correlation ($r_{mb}$) between the classifications and the networks of authors based on their activities and critical reception. The eleven published statements on style groups within contemporary literature (rows in Table 1) are identified by author and year of publication. There is a correlation between classification and locus of publication (publishing house, magazine), evaluations (preferences of critics), and comparisons among peers. In the case of cooperation, the correlations are equally strong before and after publication of the classification, so classification reflects this type of interaction (Blumer's second statement) but it does not necessarily enhance it. Symbolic interaction (grouping induced by comparisons and evaluations) correlates slightly stronger with classification according to style groups in the months afterwards, indicating that the style group assignment reflected patterns of interaction (Blumer's second statement) and enhanced them (Blumer's first statement).

As I show below, some results need to be qualified due to results of later, more advanced analyses. This indicates that comparisons of overall network structure, either visually or statistically, yield coarse results that should not be completely relied on. Perhaps it is a typical first step in analyzing networks: interpreting overall network structure without taking into account the role that chance or randomness may play or alternative mechanisms that may define network structure. We now know, for instance, that some types of random networks are quite like empirical networks, e.g., scale free networks exhibit the amount of centralization typically found in empirical social networks (Barabási 2002).

*Friends of friends*

The first attempt was not based on clear behavioural hypotheses, merely assuming that a network is meaningful in itself. In social network analysis, however, behavioural hypotheses are available especially for signed relations such as the evaluations that I am studying: ties marked as either positive or negative. Balance theory, which originated in psychology in the 1940s (Heider 1946) and which is excellently summarized in Wasserman & Faust's handbook (Wasserman and Faust 1994: Ch. 6), predicts that people tend to be friendly to their friends' friends and hostile to their friends' enemies, otherwise they feel uneasy (out of balance).

The original formulation by Fritz Heider (Heider 1958) states that a person (P) tends to adjust its opinion on a topic X to the opinion it assumes another person (O) has. Note how very close this is to Blumer's premises! An interesting structural consequence of behaviour following the balance principle was discovered by Dorwin Cartwright and Frank Harary (Cartwright and Harary 1956): if people act according to balance, the network is divided into (one or) two clusters such that all positive ties are within the clusters and all negative ties between them. In other words, balance yields polarization among groups. The balance principle may well explain the clustering of authors and critics.

Additional models or generalizations of the balance principle also take into account ranking (Davis and Leinhardt 1968; Johnsen 1985): a person who is treated positively but responds negatively is structurally advantaged. Think of the most popular kid in class who is not returning favours. Thus, overall network structure may reveal groups or individuals that are ranked over others.

Armed with the hypotheses of balance theory and the associated indices of network structure, we can investigate whether basic attribution mechanisms from social-psychology, which govern behaviour at a children's playground, also govern the evaluation of literature by critics, the ways in which authors cluster, and the ways in which literary style labels were attached to the clusters.

My analysis consists of three steps: (1) determining when and to which extent the network of evaluations display the structure predicted by balance theory, (2) reconstructing overall group structure according to the balance-theoretic model characterizing it at a particular time, and (3) identifying the position of literary style groups within this structure. Do names for style groups label polarized factions or specific dominant or dominated ranks? If so, this corroborates Blumer's second statement: people (authors and critics) react to previous actions because they interpret previous action and assign meaning to the things (books) that are central to the interaction.

**Table 2 -** Balance theoretical models per annum, 1970-1979.

| | Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
| # Actors | 10 | 18 | 20 | 24 | 23 | 28 | 35 | 29 | 25 | 27 |
| # Judgements | 9 | 23 | 38 | 50 | 44 | 50 | 66 | 83 | 48 | 53 |
| *Model* | | | | | | | | | | |
| Balance | 0 | 0 | 7 | 14 | 2 | 0 | 12* | 23 | 14** | 2 |
| Clusterability | 0 | 0 | 1 | 2 | 0 | 1 | 4 | 6 | 6** | 1 |
| Ranked clusters | 0 | 2 | 10 | 42* | 33* | 19 | 58** | 313** | 50** | 19 |
| Cleavage | 0 | 0 | 2 | 6 | 0 | 1 | 11** | 9 | 15** | 0 |
| Hierarchical clusters | 0 | 0 | 0 | 0 | 5 | 2 | 1 | 13 | 0 | 1 |

* Significant at the .05 level (Monte Carlo simulation conditional on overall-sums)

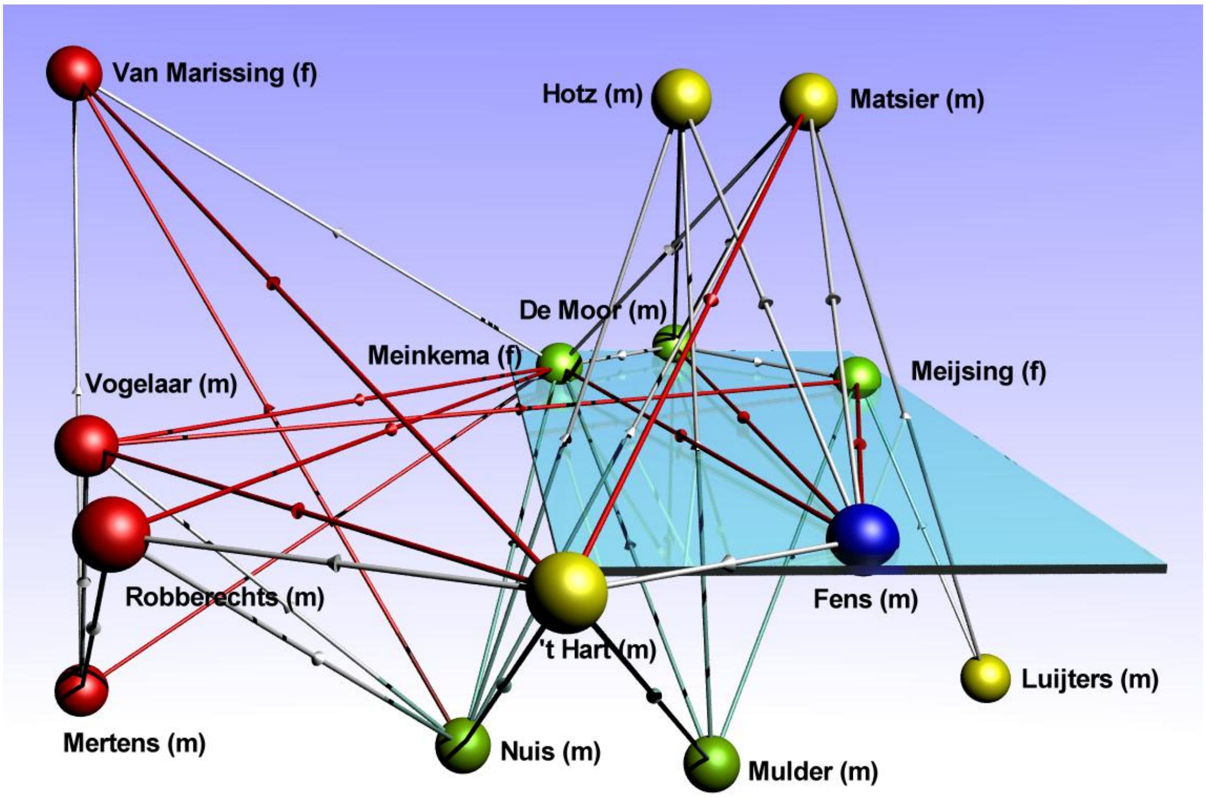
** Significant at the .01 level (Monte Carlo simulation conditional on overall-sums)

Table 2 shows the results of the first step in the analysis (de Nooy 1999). It shows the frequencies at which indicators of different balance-theoretic models occur in the annual networks of evaluations. The statistical significance is established by comparing the frequencies to those obtained in a large set of simulated networks. This is a simple Monte Carlo approach to statistical testing.

The results for the models of balance and clusterability show significant trends toward polarization in some years, notably 1976 and 1978 (Table 2). In addition, there are patterns that point toward ranked structures (1973-4 and 1976-8): ordinary ranking (ranked clusters model) and a cleavage model, that is, two separate hierarchies connected by relations that defy hierarchy, viz., negative actions toward higher ranks in a distant hierarchy. A classic example of a cleavage is found in school classes: there is a hierarchy among the boys and a hierarchy among the girls but all boys dislike all girls, even the most popular, and vice versa. Figure 3 shows the core of network structure in 1976 as it is reconstructed from the balance-theoretic models that are significant for this data: ranked clusters with a cleavage. Positive evaluations are represented by white arcs, negative evaluations by red arcs, and the cones in the middle of the arcs show the direction of the evaluation: who evaluates whom. Vertex (sphere) colours indicate literary style groups.

Network structure of 1976 displays at least three ranks (bottom, middle, top) and a cleavage between left and right spanned by negative arcs pointing up. At that time, authors on the left (red spheres) were labelled Marxist literature, which suggests that network structure or the pattern of interaction giving rise to this structure is related to the recognition of literary groups or movements. Positive evaluations among members of this group express solidarity whereas predominantly negative evaluations between this group and the other authors and critics, disregarding the ranking or esteem distribution among them, signal a *living apart together* situation. The reconstruction of network structure according to balance-theoretic models thus offers a qualified interpretation of group structure and individual positions within this structure at a particular time.

**Figure 3 -** Reconstruction of group structure in 1976 ( f = female, m = male).



*The point of view of the individual actor*

Notwithstanding the behavioural hypotheses deduced from balance theory, the approach presented in the preceding section still sticks to overall network structure. It assumes group processes at work but it does not investigate the processes at the actor level. My next step is to take the point of view of the individual actor, who may act according to balance-theoretic principles but who may also act on other aspects of the situation that it deems meaningful.

The actor-based approach is a general name for research designs that take the individual person (or organization) as the fundamental agent and the tie as the unit of analysis (Snijders and van Duijn 1997; Wasserman and Pattison 1996). Basically, it investigates the circumstances in which actors establish, maintain, or end social ties assuming that actors react to (and upon) circumstances. Three major types of circumstances are relevant:

1. Characteristics of the two actors involved in the tie, e.g., whether they belong to the same social class, have similar age or gender, or, in my case, whether they are assigned to the same literary style group. Birds of feather flock together is not just a proverb, it is also a powerful social mechanism, which is known as homophily in social network analysis.
2. Ties on other relations among two actors (tie multiplicity) usually enhance the establishment or maintenance of new ties because they provide opportunities for contact or enhance trust. For instance, shared affiliations such as publishing at the same publishing house or joint membership of the editorial board of a literary magazine may induce solidarity that increases the probability of passing positive instead of negative judgment.
3. The local structure in which the actors and the tie are embedded (local network structure), e.g., previous evaluations among the actor and its neighbours or among its neighbours and their neighbours.

Each observed act is contextualized: to whom is it directed, what is the (recent) history of previous interaction, and what is the wider local context of (previous) interactions within the group? Each new act changes the network and personal attributes may also change over time, so each situation is potentially unique. Rather than assuming that each actor is aware of and is willing to explain all of its interpretations, so asking them for the motives of their acts suffices, social network analysis assumes that interpretations have systematic effects on the content of action. Recurrent patterns of actions in situations with similar characteristics are assumed to point to effects of interpretations.

For instance, if male critics favour books by male authors rather than books by female authors, gender solidarity seems to play a role. If authors speak highly rather than criticize books that are praised by their favourite critics, the friends of my friends preference is probably at work. Literary critics and authors are not likely to come up with or acknowledge the relevance of social trivialities like gender and peer pressure to their evaluations of literature due to the strong institutional norm that the literary text is the sole source and justification of quality judgments. Systematic analysis is required to discover these tendencies, which can then be fed back to the authors and critics to obtain their interpretations or the meanings of the tendencies to them. In comparison to qualitative analytic techniques, social network analysis allows for much more data to be analyzed systematically (500 evaluations among 40 persons in this example) and tendencies can be spotted with a higher level of detail as the results presented below show.

My third attempt at analyzing the literary criticism data consists of explaining the sign of evaluations: to which extent does previous interaction, conceptualized as networks, and social or literary attributes of the authors and critics predict whether an evaluation published in a review or interview is positive or negative? In other words, does the meaning attached to a literary book depend on previous interaction as claimed in Blumer's second statement?

Several approaches and software packages are being developed for actor-based approaches to social networks, e.g., Exponential Random Graph Models implemented in software packages statnet (http://csde.washington.edu/statnet/) and PNet (http://www.sna.unimelb.edu.au/pnet/pnet.html) or MCMC models as implemented in SIENA software, which is part of the StOCNET software suite (http://stat.gamma.rug.nl/stocnet/). At least at the time of the analysis, none of these packages incorporated the balance-theoretic approach to signed networks, so I used a multilevel logistic regression analysis with the sign (positive versus negative) of the evaluation as the dependent variable. For detailed information about the design and results, see (de Nooy 2008).

**Table 3** –Effects on the sign of the evaluation 1976-1980 (crossed random effects logistic model, MCMC estimation, 150,000 runs, 274 cases).

| model | parameter | posterior s.e. | (joint) posterior *p* |
|---|---|---|---|
| Variance evaluator | 0.436 | 0.731 | |
| Variance evaluated person | 0.127 | 0.250 | |
| Balance (standardized) | 0.701 | 0.217 | .001 |
| Type of periodical | | | .004 |
| - rightwing/regional | 2.407 | 0.779 | |
| - leftwing | -0.464 | 0.680 | |
| - literary magazine | -1.296 | 0.828 | |
| Seniority of evaluated person | | | .006 |
| - 1970-1975 | 0.824 | 0.601 | |
| - 1976-1980 | 2.549 | 0.801 | |
| Sex homophily | 1.491 | 0.561 | .008 |
| Educational background | | | .047 |
| - to person with less elitist education | 0.237 | 0.548 | |
| - to person with more elitist education | 1.386 | 0.566 | |
| Same type of occupation | 1.340 | 0.577 | .020 |
| Evaluated person is classified as a member of a literary style | -1.257 | 0.570 | .027 |
| Evaluated person is just a critic | -1.865 | 0.974 | .056 |
| Creative role | | | .034 |
| - authors on critics | -1.842 | 0.789 | |
| - critics on authors | 0.297 | 0.534 | |
| Constant | -1.845 | 0.945 | |

Table 3 summarizes the main results of the analysis for the period 1976-80, in which group processes were prominent (compare Table 2). First, we should note the large (random) effects of the person sending or receiving the evaluation. The variance of the evaluator represents personal styles of critics, some tend to be critical, others tend to praise, whereas the variance of the evaluated person indicates consensus on the literary quality of authors because some authors are generally evaluated more positively. The analysis is capable of finding individual profiles such as these.

Second, there is a clear effect of balance (*b* = 0.701, *p* < .005) indicating that authors and critics tend to adjust their evaluation to the local structure of previous evaluations. Previous interaction among peers is consequential. In addition, there are significant effects of political orientation of the newspaper or critic (much more positive reviews appearing in the rightwing paper than in the leftwing papers and notably the literary magazines), seniority (the oldest authors are reviewed relatively often negatively, youngest authors relatively often positively, showing different levies or generations even among these young authors), and sex similarity (evaluations among members of the same sex tend to be positive whereas evaluations between the two sexes tend to be negative). Note that these attributes were socially salient at that time. Educational reforms had changed the social composition of people who pursued literary careers, leftwing and rightwing parties clashed, and a new wave of feminism peaked. Social attributes were relevant to the evaluations, so it mattered who interacted.

Finally, some attributes do not systematically relate to the evaluations (not reported in Table 3), e.g., commercial success and shared affiliation to magazines. Joint classification of authors to literary style groups also has no unique effects on the evaluations. Note that the significant effect reported (*b* = -1.257, *p* < .05) concerns the fact that the evaluated person is classified, not style homophily between the evaluator and the evaluated person. Evaluations among members of the same style group are predominantly positive but they are relatively rare and the valence of the evaluation can also be predicted from local network structure or social attributes of the authors and critics. This result is in contrast to a result from the first analysis, in which literary classifications seemed to be relevant to the evaluations passed afterwards. It substantiates my warning against taking overall network structure at face value.

## Discussion

Newcomers to social network analysis often start with reconstructing overall network structure and comparing it to other networks. This seems to be the natural thing to do and it is quite the way in which social network analysis started historically, e.g., by drawing sociograms (Moreno 1953 (1934)). Overall network structure is a good place to start the investigation because it may reveal patterns that indicate behavioural tendencies such as cohesion, brokerage, or ranking.

The methods of social network analysis, however, have moved on and beyond the inspection of overall network structure. The comparison of my initial to latest results shows that overall network structure should not be taken at face value. Apparent structure may be due to other factors than the ones assumed or it may even be random. Meanwhile, structure may be hidden in what looks like chaos. Statistical testing of hypothesized behavioural tendencies is needed for deciding on relevant tendencies and for choosing among competing explanations. Statistical models have and are being developed that reveal the effects of previous interaction in conjunction with social characteristics of the interacting people on their interpretations and actions. The statistical techniques are superior to the human eye in pattern detection.

The above conclusion, however, is just a sideline to the main aim of this paper, viz., showing that social network analysis offers a means for formalizing and at least partly quantifying the symbolic interactionist perspective. It is quite straightforward to conceptualize action and interaction as networks and meaning as labels attached to the persons, ties, or objects in the network. With longitudinal data, we can then investigate the interplay between action and meaning, which is the central point of symbolic interactionism. I hope to have showed that the application of social network analysis does not necessarily entail that the symbolic aspect is ignored, as concluded, for instance, by Passy and Giugni (Passy and Giugni 2000: p. 124).

Whether the data are collected by participant observation, content analysis, or any other method, applying formal network analysis necessitates some standardization of the data. We can distinguish between many types of relations among the people and objects studied and we can assign different strengths to ties if we want to differentiate. However, we need to assume that a tie from A to B is similar or comparable to a tie from

C to D on a particular type of relation. Does this assumption violate the principles of symbolic interactionism? It does if one is convinced that no two ties, interactions, or interpretations can be the same. But once we accept that they can be the same, we accept their comparability and we are in a position to code and standardize. True, the feasibility of network analysis improves if there is more standardization, but this is not a matter of principle.

This is not to say that the researcher imposes its definitions of phenomena. On the contrary, the categorizations that are investigated can be the labels as they are used by the subjects themselves as in the case of the literary classifications. The similarities (identities) and oppositions implied or named by the labels can be included in the analysis without much interpretation on the part of the researcher. If, for instance, two literary classifications assign different labels to the same sets of authors, it is not necessary to decide whether the labels are the same because it is the implied clustering of authors that counts.

Another objection to using network analysis within the symbolic interactionist framework may refer to the focus on trends or general patterns versus exhaustive explanations for individual situations. I think this is a false opposition because overall patterns may disclose very peculiar situations. In the case of literary criticism presented here, the cleavage between proponents of Marxist Literature and those of mainstream literature (Figure 3) shows that the analysis highlights the actions of each individual in the end. This also applies to gender solidarity, which surfaced statistically only in the 1976-80 period, not in the 1970-5 period. This can be contextualized, referring to the rise of the Feminist movement in the mid 1970s and it can be connected to the actions of one particular author/critic (Meinkema) when we would have a look at the networks with the arcs that contribute to gender solidarity (de Nooy 2008). In other words, applying formal or statistical analysis to social networks neither erases nor abstracts from individual action. On the contrary, it helps to highlight important actions. It is my experience that formalization enhances the detail and complexity of comparisons and expands the number of facets that can simultaneously be taken into account rather than limiting it. Actor-based models offer ample opportunities for including relations and attributes, both observed by a researcher and subjectively defined by a participant.

In the final analysis presented here, the dependency of literary classifications (interpretation of literary styles) on preceding interaction is notably absent. The absence, however, is pragmatic rather than a matter of principle. At present, statistical actor-based models are available that analyze changes in network structure concurrently with gradual changes in attitudes or behaviour of the people in the network, see, for instance (Pearson et al. 2006). Work is being done on latent class models that may analyze the emergence and decay of discrete categorizations such as the literary style groups discussed in this paper. It is to be expected that the two-way effects between social structure and meaning/interpretation can be analyzed statistically in the near future.

Absent as well in my example is the notion of self-interpretation or self-interaction, as advocated by Blumer. This is also not a matter of principle but a practical delimitation. Literary authors do reflect on their own work and literary identity, for instance in interviews. It has been argued that these self-interpretations are very influential in the process of making a name and gaining a reputation (Janssen 1994). Self-reflections can be included as labels attached to the author or the work discussed. If we are keen on analyzing who attaches a label, we can conceptualize the labels as attributes of the arcs in the network. Self-labels then become attached to loops in the network, that is, arcs directed at the vertex from which they emanate. We will probably have to expand current network analytic techniques to adequately handle line labels and loops but there is no reason to believe that we cannot do that.

In conclusion, it is my conjecture that the distinctiveness of qualitative approaches to groups, group processes, and networks is to be found predominantly and perhaps exclusively in data collection, not in data analysis. Once data have been collected, they can be transformed into network data for formal analysis: with weights or categories attached to lines expressing nuances in intensity or kind as experienced by the persons involved, time-varying attributes expressing self perceptions or perceptions of alters, etcetera. Techniques for network analysis can than be applied for in-depth insights that are not feasible in eyeballing graphical representations of networks or clipping and sorting individual observations.

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