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Mutual dependencies: centrality in translation networks

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ABSTRACT

In this paper, we approach the research object — translation networks — from a qualitative network analysis perspective and examine the adequacy and usefulness of different centrality concepts such as degree, closeness and betweenness in different translation settings. For this purpose, we carried out a qualitative multi-case field study with semi-structured interviews, ethnographic participant observation and/or online content analysis. The cases include a freelancer translating directly for author clients, the translation department of a technology company and an online amateur translation network. Our study results in several observations that appear relevant to the way translation networks are conceptualised: The translation networks in our case studies all demonstrate a high level of complexity, and all the actors involved in a network are, to a certain extent, mutually dependent on each other. These networks are not straightforward, star-shaped constellations but instead show a high degree of structural polymorphy. Likewise, centrality is not completely predetermined by the actual resources available, e.g. through a large number of potential clients and subcontractors or the access to connections that comes with a role in an organisation, it also depends largely on the priorities of the individual actors. Indeed, both voluntary as well as involuntary peripheral positions were identified.

KEYWORDS

Translation network, multi-case field study, qualitative social network analysis, SNA, network studies, centrality, periphery, freelance translation, in-house translation, online amateur translation.

1. Introduction

Whereas the primary concern of other articles in this volume is to provide a panorama of the current state of the translation profession and explore the shifts and tensions it is undergoing, we focus more on quite specific translation settings. Contrasting freelance and in-house translators on the one hand and professional and amateur translators on the other, we investigate authentic translation networks and explore their structures and the position the translators assume in them.

Translators have frequently been depicted in a social context as one of many interconnected actors since the 1980s, when functional and descriptive translation studies began to present translation as an action within a social system or field. However, it has only really been in the last 20 years that translation has been explicitly examined from a network perspective as networks not only gained increasing interest as objects of research (see e.g. the analyses of professional and volunteer translator networks in Gambier 2007, McDonough 2007, Plassard 2007 and Risku

and Dickinson 2009) but were also used as conceptual and methodological tools.

It is important to bear in mind that network-oriented research is not a homogenous field but instead draws on a myriad of different network concepts originally developed in disciplines as diverse as mathematics, physics, computer science, linguistics, sociology or anthropology (for an extensive overview of the origins of different network-related notions, concepts and methods see Folaron and Buzelin 2007). The broad applicability of these different concepts is already reflected in the variety of research topics even in the translation field: publishing and literary exchanges (Buzelin 2006, 2007, Córdoba Serrano 2007, Hekkanen 2009, Haddadian Moghaddam 2012), translation production networks in a network economy (Abdallah and Koskinen 2007, Abdallah 2012), technology-mediated social networks (Gambier 2007, McDonough 2007, Plassard 2007, Groß 2012), knowledge networks (Risku and Dickinson 2009, Pöllabauer 2012), historiography (Pym 2007, Tahir-Gürçağlar 2007), scientometrics (Castro-Prieto and Olvera Lobo 2007) and semantic networks in literary translation (Jay-Rayon 2007) or interpreting (Dam, Engberg and Schjoldager 2005).

Many of the related translation studies (TS) publications build on the network theories developed in the social sciences, including the quickly growing area of research that is linking up with poststructuralist approaches, such as Actor-Network Theory by Latour, Callon, Law and others (see e.g. Buzelin 2007, Tahir-Gürçağlar 2007). Others study the merits of complementing Actor-Network Theory with additional sociological concepts taken, for example, from Bourdieusian Field Theory (see Córdoba Serrano 2007, Hekkanen 2009, Haddadian Moghaddam 2012; a discussion of the (in-)compatibility of Latour's and Bourdieu's frameworks can be found in Buzelin 2005 and Inghilleri 2005) or Barabási's general network theory (Abdallah 2012). However, only a small number of authors have so far explored the applicability of the more classic Social Network Analysis (SNA), with its strong focus on structural analysis, to translation research. In her analysis of online networks of professional translators, McDonough (2007) demonstrates how a set of conceptual tools borrowed from SNA can be used to provide an in-depth analysis of network-related parameters such as the ties and types of exchanges between agents in a network, the way these exchanges are mediated, the intensity of participation and the agents' motivation to participate. Likewise interested in the weakness or strength of interpersonal ties, but complementing them with the concept of social capital, Groß (2012) explores how social media applications influence the social networks of freelance translators. Castro-Prieto and Olvera Lobo (2007) provide a particularly interesting application of SNA tools in the terminology field. By combining Author Citation Analysis and different SNA centrality concepts (i.e. the notions of degree, closeness and betweenness centrality also used in this article), they succeed in reconstructing the complex structure and dynamics of

scientific approaches and schools of thought in terminology research.

The special merit of network-oriented approaches lies in their capacity to depict the "means to interconnect, communicate and interact through space/time" (Folaron and Buzelin 2007: 606) and to bring together micro and macro levels of analysis (the individual and the social — or the agent and the field), an aspect which has been a major concern in many sociology-based studies. In his application of Milroy's sociolinguistic network model to historiographic studies in translation, Pym (2007) explains how network analysis manages to bring out the complexity of the relationships between the agents involved and their evolution through time and space. He also shows how it can prevent researchers from falling into the trap of pressing the agents under study into pre-established, homogeneous and, thus, overly reductive categories, noting instead that "networks invite us to grasp the ways in which they have configured their own spaces. They potentially allow us to see exactly when and how translators operate in history, in exchange with whom, and in what kind of space and time" (Pym 2007: 746). In a similar vein, Tahir-Gürçağlar (2007) and Córdoba Serrano (2007) note that network studies can be used to complement or revise some assumptions in Descriptive Translation Studies (DTS) that have received criticism in the past, e.g. the view that "traduction viendrait toujours combler un vide ou remplir une fonction (attribuée *a priori*) dans la culture cible" ("translation would always fill a void or function (attributed *a priori*) in the target culture" (our translation); Córdoba Serrano 2007:765f.) or the strong emphasis on social causation in DTS that might mask individual agency, interpersonal dynamics and contingency (Tahir-Gürçağlar 2007: 726).

2. The Social Network Analysis Perspective

In this paper, we look at translation from the SNA perspective, an approach whose theoretical and methodological stance can be characterised as a *structural* analysis (Diaz-Bone 2007). SNA can be seen as a framework that can be used to study connections of any kind between units (nodes), e.g. friendship, kinship, material transactions and information flows (Haas and Malang 2010: 91f.). The units or nodes studied can be individual persons, but also groups and institutions or objects such as websites and journal articles in citation networks (Marin and Wellman 2011: 12). Accordingly, the decision on what kind of links between what kind of units are to be studied is basically open (Marin and Wellman 2011: 11) and has to be determined on the basis of the research questions and interests of each research project. In our study, the translators and their clients were the only units that were determined prior to their empirical appearance; all further units emerged on an empirical basis, depending on what proved relevant for the actual persons and activities in question. In her discussion of network maps as a means to improve contextualisation in DTS, Tahir-Gürçağlar (2007: 740) advocates a similar approach, as this "will ensure that order is not

imposed on the field under study but, instead, emerges from the interactions within the field".

According to SNA, the relations between actors or groups of actors (the nodes) and the structure of a network have to be taken into account when trying to explain human behaviour. At the same time, a network is embedded in larger network structures, its individual relations are influenced by network dynamics, and it itself is, in turn, dependent on the larger network of which it is part.

Whereas the classic SNA view strongly emphasised the role of the network structure and took little notice of the characteristics of the individual nodes, modern-day SNA stresses the dynamic interrelation between individual attributes and the social context or structure. According to Degenne and Forsé (1999: 4), human behaviour is determined neither by the preferences and expectations of individuals nor the social context alone — they are instead strongly interdependent, with identities, roles and expectations formed in social interaction. Emirbayer and Goodwin (1994: 1425f.) refer to their position as a "structuralist constructivism" (as opposed to "structuralist determinism" or "structuralist instrumentalism") in which "cultural idioms and normative commitments" have a similar enabling and forming effect on human behaviour as social relations and structure. This is also the underlying assumption we adopt in this paper: We not only analyse the position of the individual actors in the network, we also take the interpretations and capacities ("agency", see Milton and Bandia (eds) 2009, Abdallah 2012, Kinnunen and Koskinen (eds) 2010) into account.

In essence, part of the very idea of SNA is to acquire empirical data in order to make social networks visible and, thus, reveal the connections and positions inside a complex relational structure. Typical for the SNA approach is the use of graphic visualisations to show the extent to which a person, group or activity can influence and be influenced by other persons, groups or activities, e.g. through information exchange, control or support. As noted above, empirically investigating, analysing and visualising real translation networks to reveal the concrete relational structures, positions and perceptions of the persons involved has only recently begun to play a role in the TS research agenda. Accordingly, the specific potential offered by the SNA conceptual framework has, as yet, not been researched in any great depth. Our paper seeks to take one of the first steps in that direction.

The promise of SNA seems for us to lie in its commitment to the detailed empirical analysis of potentially complex and heterogeneous networks with a view to revealing the actors' structural positions and demonstrating how these influence their role(s), actions and options. As stated in the call for papers for the present volume, translators occupy different positions as freelancers, in-house translators and volunteers, work potentially with clients, subject matter experts, project managers or web administrators,

use a range of technological aids and carry out their work in different environments. Our study seeks to explore the structures of these different networks and identify the positions occupied by translators and other units (e.g. tools) in these structures.

Far from delivering a complete analysis of these social networks, our study is explorative in nature and only draws on a small number of SNA concepts. More specifically, our research questions deal with the *complexity* of translation networks and the *structural positions* of the units in these networks. In doing so, we seek to address the following two questions:

1. How complex are the networks in real translation projects?
2. Are there any regularities in the structural positions assumed by the translators in different networks?

As far as the first question is concerned, we assume that translation can indeed be described as a network activity, regardless of the size of a given translation project: on closer inspection, all translation projects reveal themselves as networks of interconnected actors and tools. With regard to the second question, different centrality concepts have been developed in SNA, such as degree, closeness and betweenness centrality. We, in turn, assume that there are network analysis configurations (including centrality and periphery) which are relevant to the translation context.

3. Cases

For the purposes of this research, we carried out a qualitative multi-case field study involving three separate translation networks: (1) a freelancer translating directly for author clients, (2) the translation department in a technology company, and (3) an online amateur translation network.

3.1. Case 1 — A freelance translator who works for different clients/authors

Case 1 involves a single translator working in direct contact with a client who has written the source text himself. The translator had not translated for this particular client prior to this project. She has been working as a full-time freelance translator in Austria since 2001, thus demonstrating a high level of experience in the field, and is an English native speaker who originally studied modern languages.

3.2. Case 2 — A translation department in a technology company

The second case study examines a translation department in an Austrian technology company. The department has a total of five translators, who handle the majority of the company's translations from German into English, Italian, Spanish, French, Russian and Ukrainian. One of the

translators works primarily from home and only comes into the office once a week. Another is located in another European country. They translate a range of different texts and materials, including user guides, handbooks, customer correspondence, sales materials, functional and requirements specifications, marketing texts and texts for promotion videos. It is also worth mentioning that the translation and technical communication departments in this particular company are grouped together to form its so-called technical communication/translation division.

3.3. Case 3 - An online amateur translation network

Our third case study looks at an online amateur translator platform founded in 2005. This network — and all its translation activities — are organised via an online platform. We have included this case study because it serves to a certain extent as a counter-example to the other two professional settings. Only a few of the forum members are professional translators, and none of them receive monetary remuneration for the translations they provide via the platform. The texts translated are usually more informal in nature and consist of relatively short passages (e.g. song lyrics, short poems, sayings or text messages) which the users want to have available in other languages primarily for personal reasons. However, they can also include texts that could be used on a commercial basis (e.g. a smart phone app created by a user, short user guides, multilingual signs, etc.). Anyone can register with the platform and subsequently view, comment and submit forum posts, texts and translations. Translators receive graded *translation points* for completed translations and can use these points to submit their own texts for translation.

4. Methodology

In SNA, the analysis is usually based on formal mathematical and visual methods. However, in addition to its strong quantitative traditions, generic qualitative methods are now also being applied to allow the inclusion of the actors' perspective as well as their experience and their ways of making sense of their perceptions (see Hollstein and Straus (eds) 2006: 13). We seek to contribute to this trend and, thus, approach the research object — translation networks — from a qualitative network analysis perspective.

To accommodate the considerable differences in workflows and communication processes between our three translation networks, we decided to adjust the data gathering process to the realities of each individual case. Since we had the opportunity to study the freelancer (Case 1) and the translation department (Case 2) in the field, we gave preference in both these cases to the participant observation and interview methods.

In Case Study 1, data was collected through both participant observation and qualitative semi-structured interviews, but in the present analyses we shall only draw on the interview data, since these proved to be relevant and adequately sufficient for our network research questions. The interviews served to reconstruct the complete translation process from both the client (a retrospective interview lasting 1h20min) and the translator perspectives (a retrospective interview lasting 1h09min and several short interviews both prior to and after the observation periods).

The data for Case Study 2 was collected over a four-month participative observation period in the technical communication/translation division of the company studied. In this case, both the field notes and the qualitative semi-structured interviews (lasting between 1h15min and 2h50min) conducted with two translators and four technical writers were included into the data analysed.

In contrast to the first two case studies, interaction in the online amateur translator network (Case 3) occurs in a virtual space, and we thus opted here to make field notes pertaining to member activity and interactions as well as the platform's structure and functions. We also collected data from online forum posts. Given the sheer amount of data available on the platform, we restricted our corpus to documents relating on the community's goals and rules of conduct (FAQs, mission statement, help page, etc.) and to excerpts from the English-language forum (a total of 2,066 forum posts). In an ideal scenario, these data would be triangulated with data obtained from interviews. Such interviews could be conducted at a later date to augment the study.

The data from all three case studies were then analysed qualitatively using the method proposed by Gläser and Laudel (2010), in which themes, categories and patterns are identified and interpreted inductively in line with the data. The topics identified in this analysis were contextualised, and the relationships between these topics analysed. The main actors and tools mentioned by the people we interviewed and/or observed were documented. The network that emerged in the analysis (from the point of view of the interviewed/observed individuals) was described in writing and visualised as a network graph.

5. Network Complexity

Complexity is a theoretically challenging concept that includes both structural as well as dynamic aspects and is discussed mainly in the systems theory field, e.g. in an organisational theory, information systems development or network analysis context. For the purposes of our explorative study, the structural complexity of a network is understood as the existence of a large number of interdependent nodes (see Lee and Xia 2002: 3).

Our visualisations of the networks (see Figures 1–3) include the relevant actors and departments — e.g. the "IT applications" — (represented as circles) and the tools used (squares). The individual units are notated inductively, based on the quotes taken from the interview protocols. The nodes are connected using lines of two different thicknesses: narrow lines to represent rare interactions, and thick lines to depict regular and/or intensive interactions. Dashed lines indicate potential, optional connections which were mentioned but not relevant in the concrete projects and processes studied. The directionality of the interaction is indicated by a two-ended (for bidirectional connections) or a one-ended (for unidirectional connections) arrow.

Case 1: From the social network perspective, the natural presumption for our first case study would be that it should exhibit characteristics of a group of only two people (a dyad), not a complex multi-node network. However, our analysis revealed that even this small-scale translation project involved a whole network of actors and tools (Figure 1; see also Risku 2014).
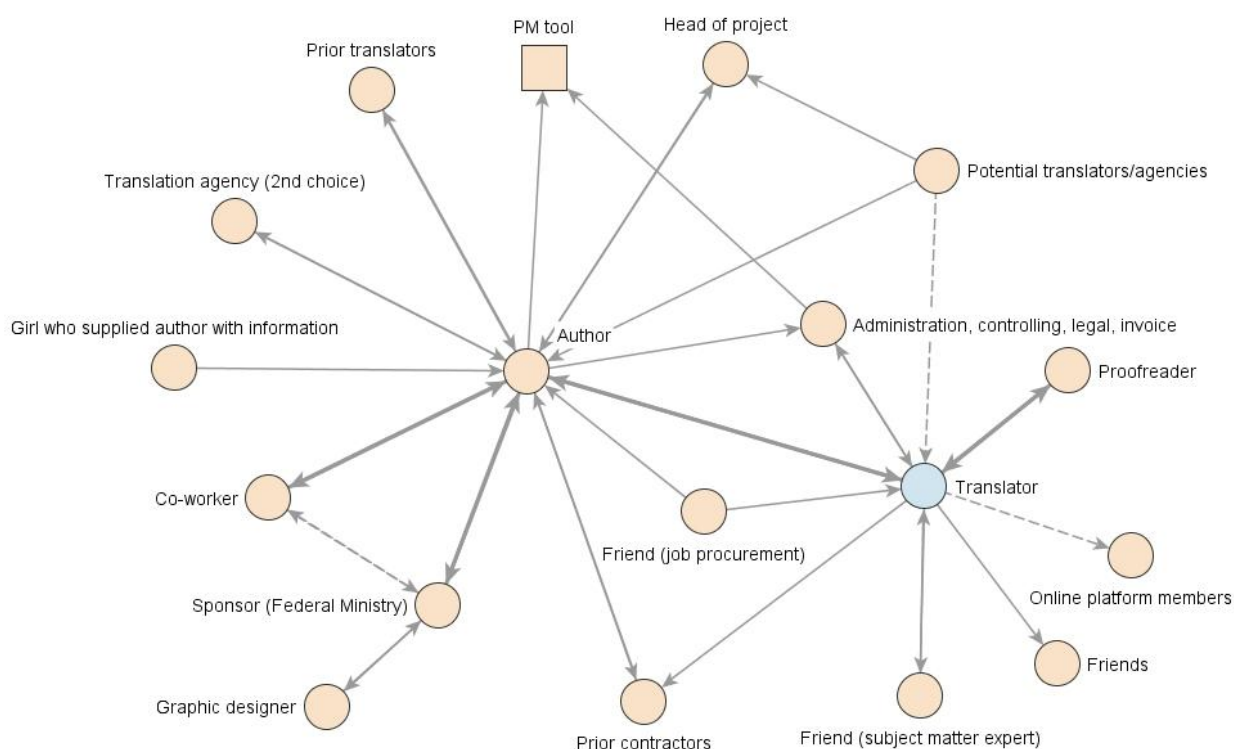

Figure 1: Case 1: freelance translator; complete network.

The translation in question formed part of a research project commissioned to the client's firm. In addition to the client and the translator, the network that became visible here also included, for example, the sponsor of this project, the head of project, a project management tool, the controlling department in the client's organisation, a co-worker of his who was asked to review/revise the translation (and whose overwhelming revisions were completely ignored by the client —

with reference to their low quality), a proofreader, a graphic designer and members of an online translation platform. Thus, the translator acted as one node in a network with several other actors and environmental constraints.

Case 2: In the second case study, different actors and different degrees of complexity emerged depending on the type of text and respective client (e.g. a user guide for a technical writer, an advertising text for the marketing department, a requirements specification for a sales representative, etc.). Figure 2 depicts the network that emerges when a user guide has to be translated for a new component or a newly developed machine.
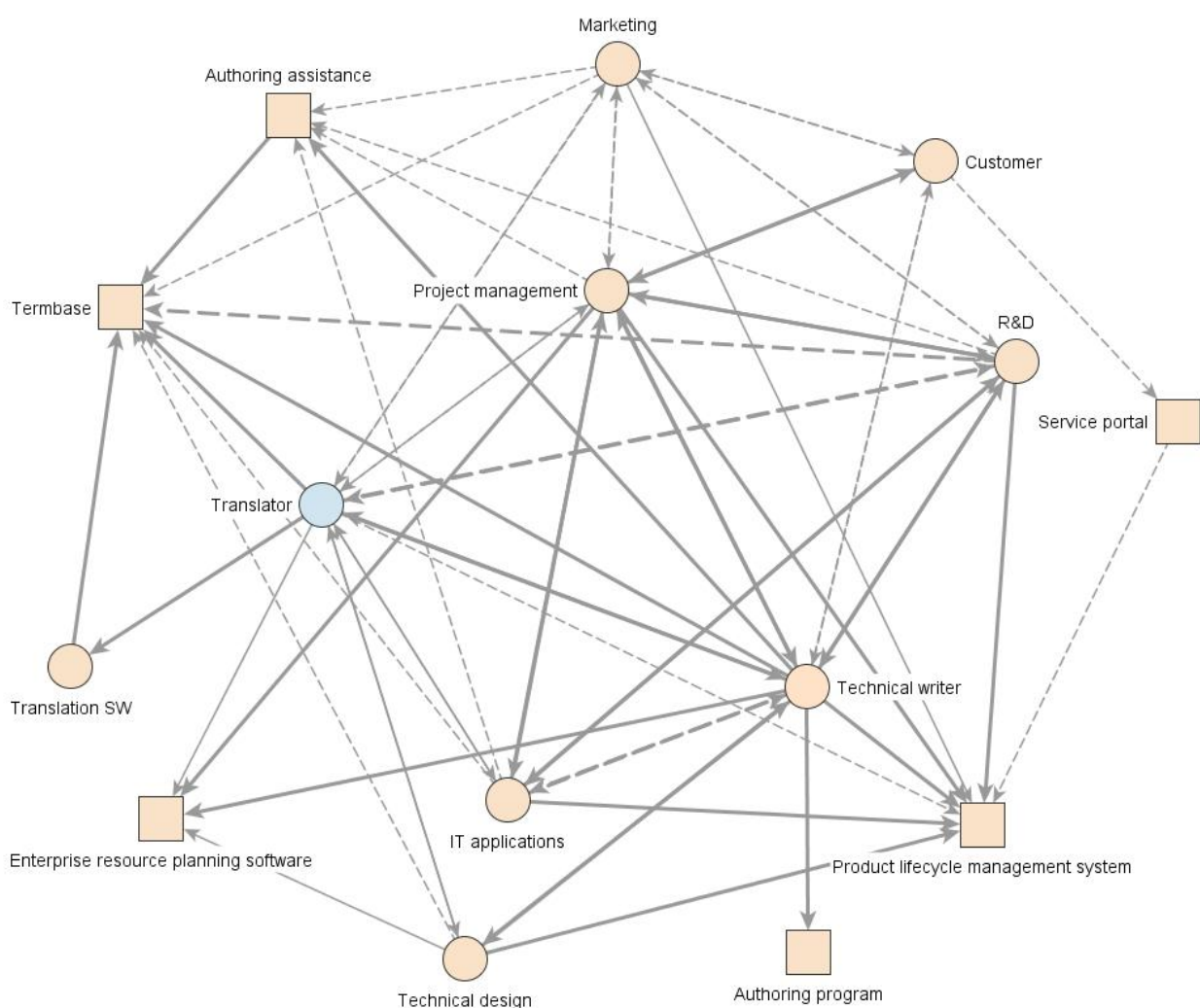

Figure 2: Case 2: translation department; complete network.

In this case, the actors involved in the translation process include the project manager handling the customer order (and under whose direction the component/machine is being built), the different software programs used to store the project files and data, the R&D department (who serves as the main contact for technical questions), the technical writer

responsible for documenting the component/machine and the translators. Since many steps run concurrently in the development of a new component/machine, many people also interact in such a project. This interaction occurs not only on the technical side, but also in the preparation and translation of the technical communication.

Case 3: While the actual complexity of the network linked to the translation process only gradually became apparent in our first case study, the approximate size of the network in our third case study is immediately apparent in the huge number of members registered with this translation platform: at the beginning of March 2015, the platform had over 250,000 registered users. The large number of members is also the reason why the network could not be analysed as a whole for the purposes of this paper. While online social media analysis tools could have been used to provide a complete visualisation of the network, the result would have been a highly complex graph, whose interpretation would have required its own research process. We have therefore only attempted to give a more schematic representation of the relationships analysed (Figure 3).
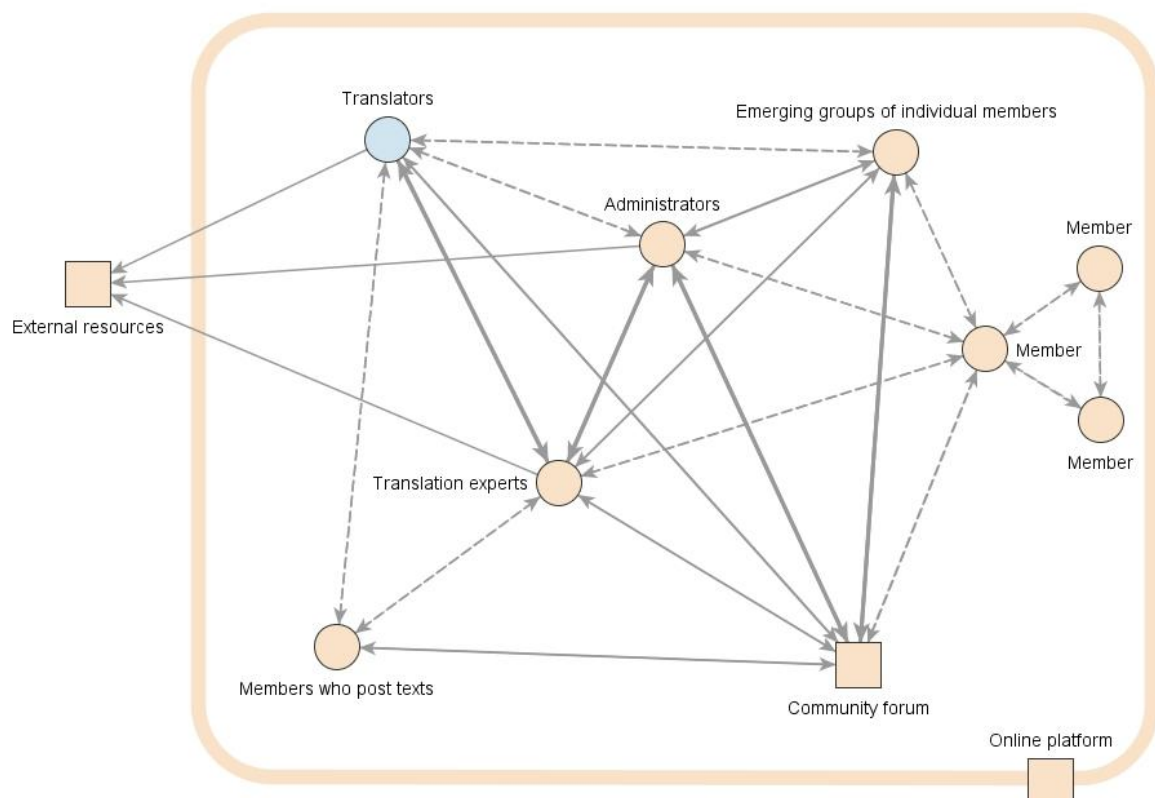

Figure 3: Case 3: online amateur translation network; schematic depiction of the complete network.

All members essentially have identical access to the community. Regular members can perform different tasks or roles (e.g. request translations of texts they have uploaded, provide translations, comment on translations or join in the discussion in the forum). Accordingly, the role of the translators is, as a rule, interchangeable with that of the translation 'clients', since every member has an equal right to provide and request translations.

Since the network was founded, its regulative functions have been assumed by the site administrators. In this role, they are responsible for technical administration of the site, monitoring adherence to community rules and taking sanctions if and when necessary.

The size of the network, the huge translation volumes and the large number of languages used for communication purposes on the site are three factors that make this network a highly complex undertaking. To accommodate this, a number of additional roles and functions have been introduced over time to increasingly structure the network. These include:

- *translation experts* (for each language; these experts check, accept or reject the completed translations and allocate the translation points),
- displaying the number of *translation points*,
- *activity level* (activity level is a term created by the community and represents "the amount of all translation points ever earned without discounting points spent to ask for translations"),
- displaying the number of *messages posted* (everyone can see how many messages other users have posted, i.e. how strongly they contribute to the community), and
- *user ranking boards* (e.g. list of most active members, translators with the best ratings, etc.; these are published on one of the main pages and can be viewed by all members of the community).

This reduces anonymity and gives some members a high level of visibility, turning the originally intended lack of hierarchy and highly democratic basic principle into a structured system.

To summarise our results on the network complexity aspect: All three of the translation networks in our case studies demonstrate complex, non-random organisational structures that include case-based and task-related (emergent) roles and interdependencies. These interdependencies expand beyond predefined organisational structures and are also evident in direct commission projects (i.e. translations commissioned by a particular author/client to a particular translator). In addition to the human actors and the tools used, departments and other organisational units were also identified as relevant nodes in such networks.

6. Centrality aspects

Our main objective in this article is to explore whether (and which) centrality aspects can be related to the structural positions of the actors we studied. Can the structural positions of the actors be characterised as central or peripheral? Are there any observable patterns of degree, closeness and betweenness centrality? In classical SNA, degree centrality refers to the number of contacts an actor possesses, closeness centrality to the number of strong direct links an actor possesses (reaching and being available for many actors at short path lengths), and betweenness centrality to the position of lying between other actors who can only reach each other by way of the actor between them. Accordingly, the 'between' position has "the capacity to broker contacts among other actors — to extract 'service charges' and to isolate actors or prevent contacts" (Hanneman and Riddle 2005a).

We would like to emphasise at this point that we do not seek here to quantitatively measure the statistical significance of the actors' centrality. Indeed, instead of identifying the degree of structural centrality or periphery, we are far more interested in the centralities and qualities of the different positions as perceived and experienced by the actors themselves. Accordingly, we approach the networks from a qualitative perspective and endeavour to approximate what those originally quantitative concepts could mean in concrete, authentic lifeworlds.

Case 1 (freelance translator): In a network analytical context, the positions of the translator and the client could be described as having similar *degree centrality*: They both had other options to turn to when looking for clients and translators, yet they chose each other for predominantly qualitative reasons. "Normally I don't do any technical translations, because I just… that's not my field. This one was… it was a lot of general and social issues and it was well… it was a nice mixture" (Translator).

The client wanted to work directly with the freelance translator who had delivered the best sample translation (and not the cheapest offer).

> We were not looking specifically for the cheapest bid — we really wanted to see who would come up with the best sample translation. We chose this approach because we — or more precisely I — had had some very negative experiences with translation projects and non-professional translators in the past. (Client)

> They said that they liked my translation best. They felt it was the most native sounding. […] Because my main contact already knew someone I had worked for in the past, and I think that person had given me some good reports. I think that helped. (Translator)

The translator had had opportunities to employ other translators and, thus, expand her business, which would have given her a more central

position from a structuralist SNA point of view. She had, however, deliberately decided not to do so and to focus instead on her existing regular customers.

> I have permanent, annual translation contracts that come in every year in March and April. That's the time most companies publish their annual reports. I have two, usually three companies, where I do the annual report. And those are permanent agreements. So they are first. They get priority. (Translator)

She only accepts further jobs (like the one studied for our case study) if the terms and conditions are favourable and there is some other aspect that makes the job particularly interesting. This represents an actor strategy that leads to a *chosen* peripheral position in a potentially larger network. In this case, the translator wanted to give herself a change and take on a larger publication in a new subject area: "It was interesting to do a nice big translation for a new customer" (Translator).

The client on the other hand could be described as having a position with a higher degree of *closeness centrality* for two reasons:

1. He could act as a "'reference' point by which other actors judge themselves" (Hanneman and Riddle 2005a) if the translator mentioned his organisation as a reference customer – but hardly the other way round.
2. He is in a position to recommend the translator (which he did actually do) in her areas of competence to other potential clients — but hardly the other way round.

At the same time, both the client and the translator are dependent on the resources of the research project sponsor (and the approval of the head of project), since they were the ones who facilitated the research project in the first place and who allowed the client to allocate sufficient funds to pay a fair market price for the translation. Here, the client exerts brokering power through his *betweenness centrality*: He – but not the translator – has direct contact to actors like the sponsor, who exert power on the client and, via the client, on the translator. In this case, the translator only reaches the resources of the sponsor by way of the client.

Case 2 (translation department): In principle, the positions of the translators and the technical writers (=clients) in our second case study can also be described as having similar *degree centrality*. All technical writers and translators in the company have the possibility to contact all actors in the network if any questions arise that can only be answered by experts in the individual departments. This also applies to the translator who lives and works in another country. In practice, however, not all the translators use these contacts with the same level of intensity. Whereas one of the translators is very outgoing and "needs people" (Translator 1), she describes some of her colleagues as very quiet and introverted: "Some of the translators here don't need any contact to other people. You

could put them in an office in the basement and that would still work" (Translator 1).

As a result, the *closeness centrality* of two of the translators is far more pronounced than that of the other three. The `outgoing translator´ mentioned above maintains her contacts even at times when she has no need for project-specific information from other actors. In this regard, she describes herself as a "bit of a nuisance" (Translator 1), because she often asks questions and is interested in what is going on. On the other hand, she is also always available to help colleagues with translation or terminology questions in return. In contrast, two of the other translators only rarely (if at all) use their contacts to the many other actors in the network, but they do have strong links to the technical writers responsible for a project. They are diligent critics and provide these writers with a great deal of much appreciated feedback on texts and terminology. In short, these two translators have decided, albeit for different reasons, to take a peripheral position in the network. One of them not only passes on relationships to other actors, she also works primarily from home. The other translator is quieter, loves translating and prefers to be distracted as little as possible by disagreeable administrative or organisational tasks. For the fifth translator (who lives in another country), time zone and location differences make it more difficult for her to gain access to information, resources and people. Accordingly, her peripheral position is involuntary.

As far as *betweenness centrality* is concerned, the only actor with whom the translators do not come into direct contact is, in fact, the actual customer of the component/machine. If there are any complaints or queries about the translations or any additional translation requirements, the technical writer responsible for the project acts as a broker. These technical writers also assume a broker-like position when they do not forward project-relevant information received from the project manager to the translator. They may do so consciously (e.g. when a delivery date is postponed, and they want to create a time cushion) or inadvertently, i.e. simply forget to pass on the information. Indeed, our data shows that technical writers frequently work on a large number of projects simultaneously and can on occasion simply just forget to pass on such information.

Case 3: We already mentioned that the amateur translator platform in our third case study is designed to allow all members to contribute wherever possible. Any user can contact another user, regardless of their respective functions in the network, which is also why the concept of *betweenness centrality* proved less useful in this type of network.

This kind of platform design might lead to the assumption that peripheral positions are impossible in this network. A closer look, however, reveals that the contrary is in fact the case. While all members basically have the

same access to resources, those who assume a particular function, i.e. the *experts* and *administrators*, seem to be networked on an additional level, thus forming the core of the network (and could therefore be described as having a higher degree of *closeness centrality*). The experts are more visible in their particular language sections than regular users. The administrators are known throughout the entire community, have access to privileged information and resources and, above all, have an exclusive role in the technical design of the platform. This gives them a central control and regulatory function and makes them members of a very exclusive club: Over 250,000 nodes in the network meet less than 10 administrator nodes. Thus, not all users have exactly the same rights — hierarchies do exist in the network (in the form of these different roles). Access to information is based on these roles and, thus, also access to power or a privileged position. A stronger position is also accorded to those members who play a more active role on the site, who translate more texts and/or who have been members for a longer period of time.

Aside from the particular *closeness* between those members with network structuring roles, other networks within the network have also been formed. These are made up of members who already know each other better (because they have been members longer, have similar language combinations, contribute more frequently to forum discussions, or have been in contact outside the actual network, e.g. via Skype or even offline) and, thus, are more likely to work together or discuss problems outside the main network. They may even work on translations in a smaller group and then post the results in the main group. Referred to in SNA as *subgroups* or *cliques*, such configurations can offer valuable insights into patterns of individual or group behaviour and conflict within a network as a whole (see Hanneman and Riddle 2005b; in her analysis of the translators' network TranslatorsCafé, McDonough (2007: 807) borrows on a similar notion by Wasserman and Faust (1994), thus indicating how users with varying degrees of community involvement could be described as *cohesive subgroups* within the larger network.)
New members who have not yet built up any personal contacts in the network therefore do seem to be more peripheral than `older´ members. Indeed, it would seem that in this online network, it is not what you do that is important — be it translating, revising or simply commenting — but who you know or are known to. The core members are those people who have managed to put the anonymity of a largely faceless online platform behind them, have made a name for themselves and have contributed to the shared identity.

Based on the above, we can offer the following intermediate summary of the centrality aspects: Degree and closeness centrality proved to be applicable concepts for describing particular structural phenomena in all three cases, but betweenness centrality was only useful as a conceptual tool for the description of the two professional networks. Even though different centrality degrees were identifiable in the amateur translator

network, making it less democratic than our image of open online amateur platforms would lead us to expect, the betweenness phenomenon could not be observed in this structural framework using a qualitative approach. The professional networks also showed that centrality is not completely predetermined by the actual resources available, e.g. through a large number of potential clients and subcontractors or the access to connections provided by the organisational context, but is also largely dependent on the priorities of the individual actors. Indeed, both voluntary and involuntary peripheral positions could be identified.

7. Conclusion

In this paper, we set out to examine different authentic translation environments as social networks in which translators occupy different positions. To analyse the centres and peripheries of such networks, we based our research design on the theoretical and methodological framework in Social Network Analysis. With the aim of exploring the usefulness and applicability of the SNA approach for describing translation networks, we selected a few potentially relevant SNA concepts and assessed their explanatory value for studying the processes, opportunities and choices available to translators in their different working environments.

We began with the assumption that looking at translation as a network activity would be a productive approach and would have explanatory value for translation studies. We also assumed that this would be true irrespective of the size of the actual translation situation, i.e. even if we might only appear, at first glance, to be observing a single translator working on a text on his/her own. In fact, the image of the lone translator again proved deceptive here: As previous research has also shown (Risku and Freihoff 2000, Risku 2009), translation practitioners do indeed communicate with other actors in the translation network. Furthermore, translation networks demonstrate a high level of complexity; even those networks that could be presumed to include only two or three actors do not actually do so. Likewise, our results indicate that all the actors involved in a translation network are, to some extent, mutually dependent on each other.

The interconnectedness of translators bears a relation to the debate on the visibility of translators, an aspect which has been a central issue in translation studies since it was first addressed by Venuti (1995). In the networks analysed in our study, the translators work with and are visible to clients, colleagues, proofreaders and other actors in these networks. For them, the translation products do not simply appear as though from an invisible hand. While this does not necessarily mean that the position of translators is visible in the respective society as a whole (which would be another research question altogether), it does indicate that translators cannot be seen in the specific working environments analysed as invisible,

impersonal or powerless, but instead appear to act as interconnected actors with their own priorities and positions. At the same time, the members of the amateur translator platform seem to be exposed to network effects such as the undemocratic nature of large, scale-free networks (Barabási 2002, see also Abdallah and Koskinen 2007, Abdallah 2012): `older´ and more active members have access to more contacts and resources. This might at least partly explain why it is possible to have central and peripheral positions even in the seemingly democratic structure of an open online network.

The SNA approach has a high potential, especially for studying the structural positions of nodes in a network (such as the centrality and periphery of the positions). In our search for the (f)actors that exert influence in translation networks, we therefore explored the relevance of three of the main centrality concepts in SNA: degree, closeness and betweenness centrality. While it might be assumed that the people involved in a translation network relate merely to one central figure (e.g. the client), who holds a more powerful position than the others and has sole influence over the translation process and final product, our results indicate that this is not the case. The networks observed are not straightforward, star-shaped networks. Furthermore, translation networks demonstrate such a high degree of structural polymorphy that it is impossible to define representative or stable positions which determine the centrality or other network characteristics of translation actors. These actors negotiate their positions actively and dynamically according to their context or history.

With hindsight, our decision not to analyse the positions of the individual actors in the network only from a purely structural perspective, but to also take the individual priorities and capacities of the actors into account, proved essential to our research. It would appear that both the polymorphy of the emergent and dynamic networks as well as the subjective orientations and possibilities of the individual have an effect on the agency of translators and, at the same time, make it difficult to predetermine their positions from a strictly structural perspective. The fact that a node (actor, tool, etc.) was accessible or available to an actor did not necessarily mean that this connection was actually used. The structural opportunities thus did not automatically determine the behaviour of individual actors, their agency was in fact determined both individually as well as structurally. Consequently, we were not able to ascertain the primacy of either agency or structure (a classic dilemma in sociology), but instead had to settle for a view that included interaction between the two.

Since the individual priorities and capacities of the translators played such an important role in determining their position, some seemingly obvious assumptions on the advantages of centrality were called into question. For example, it could be assumed that high centrality is the desired

characteristic of actor positions, as it enables the actor to exert strong influence on the other actors and the work environment. However, in both the professional environments studied, (some of) the translators chose not to use all of the opportunities available to them to maximise their different centrality degrees, even though this would have been possible by adding to their number of contacts, to their strong direct links, and to the actors who are dependent on them as brokers. Rather, they chose to occupy less central positions for personal reasons, e.g. to concentrate on working for regular clients, on communicating with specific strong links, or on giving preference to translating over administrative and organisational tasks. Thus, structural centrality is not automatically considered an attractive position, and high degrees of centrality do not automatically constitute the desired working conditions.

Our explorative study represents only a minor step in the endeavours to apply SNA in the translation studies context. However, it does contribute to the conceptualisation and — hopefully — greater understanding of the social aspects of translation. We feel that there is much value to be gained from developing the SNA concepts in translation research and adding to the empirical basis of describing translation as a social process.

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