Horace Walpole and his correspondents : social network analysis in a historical context

Henstra, F.H.

Chapter 4. Social network analysis and the history of English

4.1. Introduction

In chapter 3 I provided an account of linguistic variation between Horace Walpole and one member of his social network, showing that the language of the upper classes is not uniformly standard as represented in the codified norm in grammars at the time . In chapters 5 and 6, below, I will embark upon a linguistic and structural analysis of two more complicated network clusters within Horace Walpole's network and their correspondence, and try to explain any linguistic variation within the network by using social network analysis (SNA). It is therefore important to review the basic principles behind this study at this time, which I will do in the present chapter.

Since sociolinguistics studies "the correlation of dependent linguistic variables with independent social variables" (Chambers 2003: ix), one needs to find a way to define these social variables in order to be able to study the link between language and context systematically. This is particularly relevant in a historical context where data are sparse and more difficult to interpret in a straightforward manner without such a systematic analysis. In the present study, the theoretical framework for quantification of social variables is that of social network analysis (SNA), following Milroy (1987). SNA is based on the broader concept of network theory, which, as explained by Fitzmaurice (2000a), is

> also a technical [notion], developed in the fields of anthropology, social psychology, sociology, epidemiology, business studies, economics, and recently in sociolinguistics, to describe the relationship between individuals and the social structures which they construct and inhabit (Fitzmaurice 2000a: 203–204).

SNA as applied in sociolinguistics is used for the quantification of the different types of relationships that function as variables in the analysis of language variation and change. In sociohistorical linguistics this is stretched further to include the explanation of historical networks and language variation and change in a historical context, or, simply, as taking place in the more or less distant past.

The present study is not meant as a justification of the disciplines of sociolinguistics or sociohistorical linguistics. This has been done in more detail in Chambers *et al.* (2002), for example, who provide different takes on and explanations of the variationist view on language which lies at the basis of the development of sociolinguistics. More specifically, Chambers (2002) provides an epistemology of sociolinguistics, and Chambers (2003) is a broad introduction to the different fields within sociolinguistics, using linguistic studies as an illustration of key terms and concepts in the field. Nor will I provide a complete historical overview of the development of network theory or SNA as a model in its broadest sense, or of its development within the humanities. Examples of studies that do so can be found elsewhere, such as Milroy (1987: 1–46, 166–172), Bergs (2005: 8–55) and Sairio (2009a: 15 - 35), which provide comprehensive accounts of the background of sociohistorical linguistics and of the development of SNA as a model within the humanities and within sociohistorical linguistics, as well as in other scientific disciplines. Milroy (2002) also offers a very clear overview of work that has been done on social networks in the context of research on modern language variation and change.

In this study I will focus on the practical application of SNA in a historical context and will therefore only discuss the status quo of SNA in sociohistorical applications. In the following section I will first address the basic

terms and concepts used in SNA. In the sections on the theoretical framework to be adopted in the present study I will discuss most of the earlier work on SNA in a historical linguistic context.

4.2. Terms and concepts

According to Milroy (2002), "[a]n individual's social network is straightforwardly the aggregate of relationships contracted with others, and social network analysis examines the differing structures and properties of these relationships" (2002: 549). Similar explanations of the terms and concepts that are important in SNA can be found in virtually all studies concerned with the methodology of this research model, for example in Milroy (1987: 18–22, 46, 49–52, 139), Wasserman and Faust (1994: 35–54), Chambers (2003: 79–86) and Sairio (2009b: 16–19). In the following overview of important terms and concepts that are of relevance to my analysis of Walpole's language I will refer to one or two of the many explanations provided in these works for each term, rather than exhaustively to all of them.

People in a network, referred to as **actors**, are represented by **nodes** in network theory and the **relationships** or transactions between them are called **vectors, links** or **edges** (Wasserman and Faust 1994: 17; see Sairio 2009b: 16). Any link can represent a transaction or connection of any type, such as goods, communication, aid, trade, or membership of the same formal group. In social network analysis a link typically represents a relationship with a functional and emotional content (see, for example, Bax 2000). The relationships can therefore be measured by quantifying the strength of these functional and emotional ties and the direction of the links or vectors in a so-called **network strength scale** (NSS), which in the model developed by Milroy (1987) "consists of a six-point scale going from zero to five, and functions

rather like a social class index" (1987: 139). The measures of a NSS can be adapted to different times and circumstances as long as a number of preconditions are met, as will be discussed in chapter 6. The focal point of a personal network is called **ego**, and the network consisting of all of the **first-order network contacts** of ego may therefore be called an **ego-centred network**. This is the type of network that is most commonly focused on in network analysis, because it presumes a finite set of actors for whom relative network positions and tie-strengths can be calculated with greater ease. In theory, each person's network is infinite in size, but for practical reasons a finite number of network connections needs to be the focus of an analysis (see Wasserman and Faust 1994: 42, as paraphrased by Sairio 2009b: 17).

Other important concepts in SNA are **density** and **multiplexity**. The density of a network is an expression of the number of actual relationships in ratio to the number of possible relationships. In a dense network, most actors have relationships with most of the other actors in the network (Milroy 1987: 49–50). Density is calculated by dividing the number of actual links or vectors by the number of possible links in a network, multiplied by one hundred percent. The maximum density of a network is therefore a hundred percent: in that case, each network member is connected to each of the other network members. Multiplexity, on the other hand, expresses the fact that ties do not just exist as such, but may exist in several forms at the same time: someone may be both a neighbour, a friend and a co-worker at the same time (cf. Sairio 2009b: 18, see also Milroy 1987: 21, 51). Milroy notes that "it is inadequate simply to specify a link without considering the content of that link" (Milroy 1987: 51). If an actor is "connected to ego in a single capacity only ... such a relationship [may be referred to] as uniplex, or having single content" (Milroy 1987: 51). According to Milroy "multiplexity and density are conditions which

often co-occur, and both increase the effectiveness of the network as a norm-enforcement mechanism" (Milroy 1987: 52).

A high-density network is usually a **closed** network: everyone in the network is connected to (almost) everyone else in the same network, which makes the likelihood of someone in the network not being connected to most other people in the network much smaller. In an **open** network most actors only have connections with one or a few of the other actors, and the chance that they have connections outside of the network is much greater (see Milroy 1987: 20–22). Milroy illustrates this with the example of the Hemnes study, a Norwegian community (Blom and Gumperz 1972):

> Blom and Gumperz noted that the heaviest (low-status) dialect users generally were members of 'closed' networks ... since low-status speakers interact mostly within a defined territory, a given person's contacts will nearly all know each other. The élite of Hemnes on the other hand had 'open' personal networks. They moved (like Fried's urban middle classes) outside territorial boundaries, and a given person's contacts each had his own contacts, none of whom necessarily knew each other (Milroy 1987: 20).

According to Milroy "it is possible for one network to be described as *more* or *less* dense than another, rather than in absolute terms as *open* or *closed*" (Milroy 1987: 21). Sairio (2009b) notes that the network of the Bluestockings – an eighteenth-century group of intellectual women and men who met in Elizabeth Montagu's (1718–1800) literary Salons – is very dense for example, but not completely closed in the sense that most of the network contacts were also connected to other networks. This makes the Bluestocking network more a dense **cluster** within a greater network of the élite circles of eighteenth-century literary society in England. Network clusters are important focal points

within SNA: Milroy defines them as "segments or compartments of networks which have relatively high density: relationships within the cluster are denser than those existing externally and may also be considered as being relationships of like *content*" (Milroy 1987: 50). Clusters function as strong norm-enforcement mechanisms (see Milroy 1987: 51, following Bott 1957).

In passing I have mentioned that the structure of a network and the relationships between actors can be measured by way of a network strength scale, which quantifies the existence and the relative strength of ties in a network. The idea that a network consists of **weak** and **strong** ties was developed by Granovetter (1973 and 1983) "who sees 'weak' ties between individuals as important links between micro-groups (small, closeknit networks) and the wider society" (Milroy and Milroy 1985: 364). These micro-groups may be considered closed network clusters within greater networks. According to Granovetter "the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie" (1973: 1361). Here, Granovetter presupposes positive and symmetrical ties only. Milroy and Milroy "note that by this measure multiplex ties – i.e. those with multiple content – would be counted as relatively strong" (1985: 364). In other words, the tie-strengths calculated by a NSS, which take into account both density and multiplexity, i.e. the number as well as the content of ties, can be said to directly relate to Granovetter's notion of weak and strong ties.

Someone who is integrated into a network cluster consisting of many multiplex or strong ties may also have a weak tie to another network cluster, for instance in the single capacity of being a neighbour. Such a person or such a weak tie can function as a so-called **bridge** between two networks or two network clusters (see Granovetter 1973; 1983 and Milroy and Milroy 1985:

364–365). Granovetter (1983) provides a very clear explanation of this bridge phenomenon:

> Some arbitrarily selected individual – call him Ego ... will have a collection of close friends, most of whom are in touch with one another – a densely knit clump of social structure. Moreover, Ego will have a collection of acquaintances, few of whom know one another. Each of these acquaintances, however, is likely to have close friends of his own right and therefore to be enmeshed in a closely knit clump of social structure, but one different from Ego's (Granovetter 1983: 202).

The basic argument is that strong ties within a network act as norm enforcement mechanisms, or in other words: "density and multiplexity usually go together, and ... dense, multiplex networks act as norm enforcement mechanisms" (Milroy 1987: 136–137), thus enforcing a particular linguistic variety as a norm of identity characterising the members of that particular network or network cluster. Weak ties between networks or network clusters on the other hand act as bridges that help to spread innovations from one network to another or between networks.

The notion of weak ties functioning as bridges directly relates to different **adopter categories** of which Sairio (2009b: 21–25, 141–144), basing herself on Ryan and Gross (1943), Rogers (1983: 248–251), Rogers and Kincaid (1981) and Valente (1996 and 1999), distinguishes the following: "1) innovators, 2) early adopters, 3) early majority, 4) late majority, 5) laggards" (Sairio 2009b: 22). Adopter categories have to do with the flow of innovation and change through a social or communication network. Changes filter downward through a network from opinion leaders to the followers in the network (cf. Sairio 2009b: 20, 22–25). Sairio notes that the "**early adopters** ... resemble Labov's leaders of linguistic change", as they "are often role models in a position of

responsibility, so they face greater risks if they adopt a new idea that will not be accepted by others" (Sairio 2009b: 23). Early adopters are central to the network clusters of which they are part, whereas "**innovators** are loosely connected to (various) social networks and have a number of weak ties" (2009b: 23). Combining this information on the **diffusion** of innovations and change with our knowledge of language maintenance in networks, which is the result of the norm enforcement function of closed networks or network clusters, we can now (partly) explain why a dense network or network cluster is more likely to maintain a norm of its own. The more strong ties there are, the smaller the chance is that someone in the network will have a tie that is not shared by the other network members: in a relatively closed network cluster, the number of possible bridges will be much smaller than in a more open network consisting of more weak ties through which innovations can enter the network. Furthermore, Milroy identiefies "changes in network structure as an important social mechanism of linguistic change" (Milroy 1987: 170). Changes in network structure can occur as a result of geographical or social mobility of its members (Milroy 1987: 137), which may change the density and contents of ego's network quite drastically (see Nevalainen and Raumolin-Brunberg 2000 and 2003 for a discussion of the effects this had on language change on a macro-level). A breakdown of network density and multiplexity on a wider scale, beyond that of single individuals, makes room for more weak ties, and therefore more room for innovations and change to spread within the network: the more open a network is, the larger the number of potential innovators that belong to the network. This is of course a simplified account of diffusion and innovation theory, but for the purpose of the analysis carried out in this study the distinction between potential

innovators and early adopters, and the role of strong and weak ties in diffusion and innovation as well as language maintenance as discussed above will suffice.

4.3. Theoretical framework: Historical applications of SNA

At the tenth International Conference on English Historical Linguistics, held in Manchester in 1998, a special workshop called 'Social Network Analysis and the History of English' took place, organised by Ingrid Tieken-Boon van Ostade. It was aimed at "explor[ing] the possibilities of applying the concept of social network as used and developed by Lesley Milroy in her book on the Belfast vernacular (Milroy 1987) to older stages in the history of English" (Tieken-Boon van Ostade 2000c: 211). A number of suggestions for questions to be discussed in papers were made in the call for papers, as is noted by Tieken-Boon van Ostade in the introduction to the volume in which the papers from the workshop were published (Tieken-Boon van Ostade *et al.* 2000). Two of the topics discussed are especially relevant for my own study, as they largely overlap with the research questions I am addressing here:

> What problems do we encounter when applying the Milroys' research model to older stages of the language? [...] To what extent can Milroy's network strength scale be applied as a tool for measuring network strength in the past?
>
> Once potential linguistic innovators and early adopters have been identified, how can we study the spread of linguistic change (a) from one network to another and (b) within a network (Tieken-Boon van Ostade 2000c: 215–216)?

Tieken-Boon van Ostade notes that the resulting workshop papers "illustrate more than anything else the potential of this new approach in the field of English historical linguistics" (2000c: 216). A decade and a half have passed

since this first impulse for a historical application of social network analysis was given, and I will discuss the developments which have taken place in the field during the years behind us. I will assess to what extent the papers in the volume provide (satisfactory) answers to the questions posed above, and discuss the way in which other and later publications have sought to answer the basic question of how to apply social network analysis in a historical context. However, some earlier work on the historical application of SNA was carried out before the workshop on this topic was hosted in Manchester in 1998, and this work needs to be taken into account first, for it inspired the questions raised above.

4.3.1. Early work: exploratory historical network analysis

Some of the earliest exploratory work on the historical application of SNA was published by Tieken-Boon van Ostade when she studied language use during the eighteenth century. In doing so she focused on the network of Samuel Johnson and was concerned with the language of Samuel Richardson (c.1689–1761) (Tieken-Boon van Ostade 1991) and James Boswell (1740–1795) (Tieken-Boon van Ostade 1996), both of them members of Johnson's social network though at different periods in his life and in different roles. The work on Richardson focuses on finding an explanation for the fact discussed in Tieken-Boon van Ostade (1987a) that his use of periphrastic *do* is very conservative, and does not vary between his more public and more private writing styles:

> Generally one would expect a more old-fashioned pattern of usage, in this case with a higher proportion of *do*-less negative sentences, in an author's more formal prose styles than in his or her more informal, colloquial styles. This has indeed been attested with respect to their usage of *do* for about half of the authors studied in Tieken

> (1987). That Richardson's usage of *do* is so very conservative is remarkable in itself; it is even more remarkable that in his private letters the same pattern is found (Tieken-Boon van Ostade 1991: 47).

Richardson's linguistic conservatism is attributed to linguistic insecurity: being upwardly mobile on the social ladder would have meant that he was aware of a standard that was to be aspired to, but unsure of whether he was reaching that standard or not. Tieken-Boon van Ostade infers that his linguistic insecurity and sensitivity to the existence of linguistic norms which were perhaps not quite within his grasp, led to the use of hypercorrection which according to Cameron and Coates (1985: 144, see: Tieken-Boon van Ostade 1991: 47) is typically associated with the language of women. Cameron and Coates note that "such insecurity on the part of women offers a clear parallel with the lower middle class, who of course provide the classic example of hypercorrect linguistic behaviour" (1985: 144).

At the same time, Richardson is found to be "something of an innovator in language" (Keast 1957: 432, see: Tieken-Boon van Ostade 1991: 48). He could put "into words even the most elusive feelings of any kind", and "Johnson recognised Richardson as a word-maker ... his decision to include in the *Dictionary* so many quotations from Richardson is a tribute to his capacity" (Tieken-Boon van Ostade 1991: 51). Johnson seems to have held the language of the linguistically insecure Richardson in high regard. Moreover, "[a] number of the words included by Johnson are the earliest instances in the *OED*" (Tieken-Boon van Ostade 1991: 51), which confirms that Richardson's language use was innovative, in some ways at least. He was in that sense a linguistic conservative and a linguistic innovator at the same time (much as was pointed out in the case of Walpole in chapter 1). Tieken-Boon van Ostade invokes SNA

as a means "to show that these apparently contradictory aspects of Richardson's language can be reconciled" (1991: 48).

In the study at hand she does not provide a network analysis as such, but rather interprets the linguistic facts in light of network positions occupied by the key players in her analysis: Richardson was an outsider and could therefore, functioning as a bridge, bring innovations into Johnson's network, which Johnson could subsequently spread as a central network figure and early adopter (Tieken-Boon van Ostade 1991: 49). Richardson's lexical innovations are a good example of how this worked. Even though he was a marginal network member, Richardson also seems to have been able to influence Johnson's language concerning the use of *do*-less negative sentences in his writing in *The Rambler* (Tieken-Boon van Ostade 1991: 51–53), a journal that Johnson published from 1750 to 1752. Finally, in his own network Richardson may have been a central figure for some of his female supporters, and may have influenced their epistolary spelling as a result (Tieken-Boon van Ostade 1991: 54–55). Evidence of this is presented in a later study on the language of Sarah Fielding (1710–1768), which suggests that Sarah Fielding was very likely influenced in her use of spelling and capitalisation by Richardson (Tieken-Boon van Ostade 2000d).

Tieken-Boon van Ostade (1996) is similarly concerned with the usage of periphrastic *do* in the language and network of James Boswell, as well as with his use of epistolary spelling. She demonstrates that "[i]n his early letters to Johnston (ed. Walker 1966:3–107), Boswell shows himself a rather idiosyncratic speller", and, since "none of the spellings ... are found in Dr Johnson's *Dictionary* (1755), which represents the current standard at the time, we may conclude that Boswell represents another exponent of what Osselton (1984) has termed 'informal spelling systems' commonly attested in the letters

of educated eighteenth-century authors" (Tieken-Boon van Ostade 1996: 328). However, "an analysis of Boswell's later letters to Johnston ... shows that he abandoned most of his informal spelling habits in favour of the more current printers' practice" (1996: 328). Tieken-Boon van Ostade notes that Boswell's change in spelling practice can be pinpointed "fairly accurately: it took place soon after August 1767" (1996: 329): after his return from his continental tour and when he returned to his legal studies. She has also found that Boswell's use of periphrastic *do,* like Richardson's, does not vary between his different writing styles and different genres and text types. Again SNA is invoked in order to find an explanation for these linguistic peculiarities.

Boswell fulfils a number of characteristics which make him likely to be an outsider in the network around Dr. Johnson, or someone loosely connected to the network, just like Richardson:

> Boswell was certainly geographically mobile: he largely divided his time between Auchinleck, the seat of his Scottish ancestors, and London. As future Laird of Auchinleck he can hardly be called socially mobile, though he does seem to have wished to break with his past .... If anything, his case seems an example of downward, not upward social mobility (Tieken-Boon van Ostade 1996: 332).

Quennell says that the Thrales' visitors "with the possible exception of Boswell – [were] gifted descendants of the hard-working *bourgeoisie*'" (1972:54). This indeed puts Boswell in the position of an outsider in the network, which, moreover, may have strengthened the linguistic insecurity which his being a Scotsman in English circles already instilled in him. Furthermore, Tieken-Boon van Ostade notes that "[a]s Johnson's biographer, Boswell must have had a strong tie with Johnson, but Johnson may well have been the only one of this particular circle with whom Boswell had such a tie" (1996: 332). All of this puts

Boswell firmly in an outsider position in Johnson's network, similarly to Richardson.

Despite the fact that Johnson is the central figure and hence presumably the norm enforcer in this network, Tieken-Boon van Ostade finds that there is no linguistic influence from him on Boswell (1996: 333). And, contrary to the case of Richardson, there is no influence from Boswell as an outsider on the linguistic norm operating within the network either, even though as "a bridge between Johnson's network and his own [he ...] qualifies as a potential linguistic innovator to the group" (Tieken-Boon van Ostade 1996: 333). According to Tieken-Boon van Ostade,

> Boswell did not think very highly of Johnson's prose style ... If Boswell did follow a linguistic norm, it was that of Addison's prose writing ... Addison was widely recognized in the eighteenth century as a model of good prose writing (Wright 1994), and already in his school days Boswell was 'taught to admire Addison's prose' (Pottle 1950: 3) (Tieken-Boon van Ostade 1996: 333).

In fact, Boswell's usage of periphrastic *do* in negative sentences is very close to that of Addison as well as of Johnson: "the figures for all three are highly similar" (1996: 333). However, "unlike Addison or Johnson ... Boswell did not distinguish stylistically in his use of periphrastic *do*" (Tieken-Boon van Ostade 1996: 333; see also Tieken-Boon van Ostade 1987a: 187; 1987b: 164). Tieken-Boon van Ostade attributes this to his linguistic insecurity, which leads to hypercorrection (see Cameron and Coates 1985: 144 for a similar point on Richardson's language). It is hard to say which norm Boswell actually aspired to without more data for comparison, such as letters to other correspondents, and this is worthwhile exploring further. Finally, Tieken-Boon van Ostade attributes Boswell's sudden shift in spelling practice to a growing "interest in

correct spelling", caused by an immersion "in vast amounts of material written in the standard spelling of the time" (Tieken-Boon van Ostade 1996: 334) after his return from his Grand Tour when he started pursuing a legal career, "[giving] in to his father's wishes" (Tieken-Boon van Ostade 1996: 334).

What both these papers show is how SNA may provide satisfactory answers to problems that seem counter-intuitive at first, such as Richardson's conservatism combined with his innovative behaviour, Boswell's and Richardson's stylistic indifference, and Richardson's influence on the central network member, Johnson. However, we also saw that by the same method we can arrive at completely different conclusions: unlike Richardson, Boswell does not seem to have had an influence on Johnson or the network, and vice versa, even though he occupies a similar network position. This illustrates the need for a method for objective quantification of network positions rather than relying on interpretation alone. Boswell and Richardson were both outsiders in the Johnson network – though at different periods in time – on the basis of interpretation of historical sources. More precisely calculated network positions, based on a greater number of criteria, would allow for a more systematic approach for studying influence and variation on a network level.

Fitzmaurice (2000a) already takes some steps in that direction, although the papers from the Manchester workshop and many papers published after that time take the model for quantification of network ties much further. She applies social network analysis to the network of Joseph Addison (1672–1719) in order to shed light on the "social and political motivations of what amounts to a kind of prescriptivist movement" in the late eighteenth century (Fitzmaurice 2000a: 195). Writing about the role of politics and prestige in this prescriptivist movement, Fitzmaurice aims to establish "how the prescriptive grammarians came to identify a particular version or

variety of English as a basic model for the construction of Standard English" (2000a: 195). She argues that "the prescriptive grammarians took as one of the bases of their model of Standard English the periodical *The Spectator*", a journal which ran from 1711 to 1712, though she notes that it was not as such "the paper's linguistic purity which most recommended it, for its pages furnished the prescriptivists with many examples of flawed, ungrammatical and incorrect English" (2000a: 195). She shows that *The Spectator* and the men behind it – primarily Joseph Addison and Richard Steele (1672–1729) – became an example of both good and bad language practices for the grammar writers of the late eighteenth century, because of the importance of the periodical in the social and political reality of the developing polite society. Though issued in the early years of the century, *The Spectator* continued to be influential throughout much of the century after its demise in 1712.

Fitzmaurice argues that prestige usually precedes activism. That is to say, in the codification process a certain form becomes prestigious through social processes and this is then reflected, often with a time-lag, in the codification of this form in grammars and usage guides. "Identifiably powerful speakers", as she puts it (Fitzmaurice 2000a: 196), may have an influence on this process through mechanisms such as social networks. Fitzmaurice points out, however, that there is an inherent contrast between the way in which social networks may facilitate language change or the spreading of certain forms in an often subconscious way (change from below, as discussed in chapter 1, above) and the way in which "the construction and implementation of a standard language is an intentional, ideologically motivated set of actions" (Fitzmaurice 2000a: 196), i.e. change from above. In the process of explaining the selection of linguistic models, however, SNA is a useful research model to

explain roles of power and prestige within a network, affecting the perception of a standard outside and within the network.

No objective quantification data are provided in Fitzmaurice's analysis of the Addison/*Spectator* network. Social network analysis is again used mostly in a discursive way as an illustration of the different roles taken up by the men in Addison's circle, ranging from familiar friendships to client-patron relationships. Relevant network measures are mentioned though, as follows:

> The degree of proximity between actors might be measured in terms of the nature of their ties. The criteria by which these ties are measured are: longevity of relationship, geographical proximity, formal social relationship in terms of comparative rank (social equal / superior / inferior) and type of relationship (intimates / equals / acquaintances / friendship / competition) (Fitzmaurice 2000a: 204).

However, the exact model for network measurement is not provided in any kind of detail in the study. Fitzmaurice merely notes that "[t]o introduce a degree of flexibility, I have judged each parameter for each relationship on a five-point scale. The overall calculation of 'proximity' is a mean of the aggregated scores" (Fitzmaurice 2000a: 215). I will return to this practice below, since an incremental scale of measurement seems to have a number of advantages over other commonly used measuring systems, as in the work of Bax (2000), which was also commented on by Sairio (2005, 2008, 2009a, 2009b).

In an earlier study of the language of the Addison circle, Fitzmaurice (1994) carried out a linguistic analysis of, amongst other things, the use of the relative clause markers *which* and *who* in this network: a practice favoured by the grammarians over the use of *that* and the zero-relativiser or elliptical construction. She measures the usage in works (prose, verse and miscellanies)

written by central and peripheral members of the network and compares this with the precept presented in later eighteenth-century grammars. Fitzmaurice concludes that

> [t]he examination of two linguistic features – one innovative and one an index of propriety – provides a clear sense of the grounds for Addison's eminence as an exemplar of the new standard ... Modernity and correctness (propriety) are ... balanced in Addisson's prose to the extent that his language appears to occupy the centre of a stylistic continuum (Fitzmaurice 1994: 265–266).

Returning to the subject six years later however, Fitzmaurice finds that in their familiar correspondence most of the network members, with one exception, show an unexpected preference for the elliptical or zero-construction and that "[t]hese results seem to indicate that the prescriptivist rule is not entirely an ideal construct unrelated to actual usage in the era of *The Spectator*" (2000a: 214). The link between the prescribed usage in the grammars and the linguistic practice of Addison's circle thus seems to be much weaker than perhaps was to be expected based on Fitzmaurice (1994) and the idea that the writings of the *Spectator* network may have been an example for grammar-writers. However, this is in fact not surprising when we consider that the material used for the analysis in the second study (Fitzmaurice 2000a) consists of familiar personal letters only: it was established in chapter 1 above that this is typically the context in which one's most vernacular usage may be found. And it is this vernacular usage which is in turn criticised in the grammars of the eighteenth century. Fitzmaurice furthermore implies that a particular linguistic instance may be criticized and still be an example of good or elegant language: "The grammarians cite and change *The Spectator's* language to demonstrate how

elegant language might be improved by grammatical correctness" (Fitzmaurice 2000a: 201).

In the same study, Fitzmaurice also touches upon a number of problems which have become more apparent in subsequent research using SNA in a historical context, for instance the fact that

> subjects leave only partial personal historical records, leaving the linguist to do the work of historical detective, biographer and amateur psychologist. So the historical evidence for the nature, strength and number of ties between individuals is at best partial and at worst misleading (Fitzmaurice 2000a: 204).

This is directly related to the problems which the papers presented at the Tenth International Conference on English Historical Linguistics in Manchester in 1998 tried to tackle. Below I discuss her paper for that workshop, i.e. Fitzmaurice (2000b), which expands upon this approach and follows Carley and Krackhardt (1996) in "characterizing the asymmetrical and occasionally non-reciprocal contacts that occur in the evolution of a relationship between individuals", measuring this by "using both sociometric and cognitive data" (Fitzmaurice 2000a: 205). This will be one of the most important premises of the model for analysis of the Walpole network which will be presented in subsequent chapters.

What these three exploratory historical network analyses most clearly illustrate is the usefulness of the application of SNA for identifying some of the more unexpected linguistic patterns: the paradoxical combination of Richardson's conservatism and innovativeness (Tieken-Boon van Ostade 1991); the unexpected and in fact contrary directions of influence within the network of Samuel Johnson (Tieken-Boon van Ostade 1996); and the non-standard usage of zero-relativisers by Addison and others in the *Spectator* network, who

were, after all, linguistic models for the standard language during much of the eighteenth century (Fitzmaurice 1994 and 2000a). Discursive analysis of a social network can shed some light on these types of patterns, but the lack of a unified theory of influence which is backed by an objective model for network quantification prevents any conclusion in these early papers from being more than tentative.

4.3.2. The Manchester papers

A number of the papers presented at the Manchester workshop (Tieken-Boon van Ostade *et al.* 2000) take steps toward a more unified theory of influence and an accompanying model for objective quantification. Fitzmaurice (2000b), for example, concentrates on social network analysis as a form of micro-level analysis "in the context of the macro level represented by the business corporation or social class" (2000b: 265). She proposes that since "[t]he processes argued to underlie social influence include 'relations of authority, identification, expertise and competition' (Marsden and Friedkin 1994: 3) ... these relationships have to be constructed and demonstrated to be effective rather than simply identified" (Fitzmaurice 2000b: 265). In other words, Fitzmaurice takes as a starting point the question whether social relationships are effective in processes of (linguistic) change, and what a suitable measure for that effectiveness is. How do we construct "social influence and its manifestations in language" (Fitzmaurice 2000b: 266)? And, as Fitzmaurice puts it, "how contiguous can we expect the processes of social influence and linguistic change to be" (2000b: 268)?

To study questions like these, Fitzmaurice argues, "[s]ocial network analysis is suitable for historical application, assuming an appropriate historiography and social theory" (Fitzmaurice 2000b: 265). There are several

reasons why social network analysis is applicable even in historical contexts. Firstly, "social network analysis is designed to capture the relationships between individuals", and therefore "it provides an appropriate descriptive approach to the organization of data that consists largely of textual productions of individuals or dyads rather than groups" (2000b: 268). Secondly, a historical application uniquely allows for a real-time description of change in relationships, in contrast to "[p]resent-day speech communities [which] cannot offer the linguist such direct data" (2000b: 268), and finally, the data available "correspond at least in part to the kind of ethnographical detail usually collected to construct contemporary social networks" (2000b: 268). Social network analysis thus seems to be eminently suitable for historical application as well.

However, Fitzmaurice also identifies a number of problems, linked to the question of how to construct social influence within an "appropriate historiography and social theory" (2000b: 265). For example, "[w]hat do the ties in network structures signify in terms of the kind of interpersonal relationship captured?" (2000b: 269). Historical and modern definitions of friendship and kinship are very different from each other, and the interpretation of historical information on interpersonal ties is therefore difficult. Borrowing from other disciplines which have successfully applied the concepts of networks and change "should enable us to assess more effectively the descriptive robustness of kinds of social networks and current wisdom about their association with kinds of influence" (Fitzmaurice 2000b: 266). One of the notions which may be introduced in that way when studying historical networks is that of asymmetry and, linked to it, reciprocity. Fitzmaurice postulates that interpersonal ties are rarely completely symmetrical, and that therefore the judgement of actors in a network as well as of a third party, in

this case the historian or linguist, plays a role in attempting to assess the nature of such ties. Asymmetry can be the result of differing social or economic status, but also of an asymmetrical emotional component in a relationship: the meaningfulness of a relationship may be considered differently by both participants of a relationship.

Asymmetry and reciprocity also illustrate the dynamic nature of ties. An actor in a network may be the receiver in a non-reciprocal relationship, but in time the other actor in the dyad may gain "recognition as a reciprocal actor" (Fitzmaurice 2000b: 271). Over time the social and economic status of actors in a network may also change and with it the nature of the ties between them. According to Fitzmaurice, "[w]hile reciprocity and symmetry offer two specific ways in which network ties transform themselves, it is useful to have as a basic assumption in network analysis the proposition that networks are dynamic because network *ties* are dynamic" (2000b: 273). Therefore, she continues, following Zeggelink (1994), "the formation, maintenance and dissolution of a friendship relation is a continuous combination of personality factors, relational factors and environmental factors" (Fitzmaurice 2000b: 273)

Fitzmaurice deals with coalition formation as a kind of focused social network cluster, allowing for the robust description of strategic and planned relationships. Coalitions are a form of network relationships that are contracted strategically and consciously for a specific purpose. This makes such relationships more easily measurable and perhaps also more easily quantifiable than other more broadly defined relationships. Description of these types of networks may be more reliable since one need not proceed from evidence drawn from "extensive self-report for the ethnographer's interpretation" but may rather be based on "features that may be observed in the actors' behaviour and interactions" (Fitzmaurice 2000b: 274). One might say that a

coalition can be described by more objective means than a regular social network, and according to Fitzmaurice this provides a better fit for the historical data. Fitzmaurice notes, though, that "it should be clear that the use of the coalition as a descriptive social category for the sociolinguistic investigation of earlier speech communities more easily facilitates the analysis of language maintenance rather than of language change" because the ties "are not straightforwardly weak" but are rather "of a highly restricted kind", and therefore such an approach "arguably allows a historical social analysis that is transparent, and facilitates a well-defined, highly focused investigation of social influence" (Fitzmaurice 2000b: 276).

Fitzmaurice's main question in the paper under consideration here was to what extent the methodology of social network analysis may be successfully extended to a historical situation. Her solution for the problems concerning the historiographical robustness of social constructs that are relevant for interpersonal ties such as friendship is two-fold. Firstly, there is the idea of asymmetry and reciprocity defining the dynamic nature of networks, and secondly, she considers a special kind of network: the coalition. Even though this type of network is highly specific, I believe elements of it may be used in the analysis of broader and more general networks. One could say that consciously contracted ties to a specific purpose are really just another type of strong tie. Sairio (2009a and 2009b) argues similarly. I will adapt these concepts further in the final model used for the Walpole network (chapter 6).

Tieken-Boon van Ostade (2000d) applies social network analysis to the network of Sarah Fielding (1710–1768), the sister of Henry Fielding (1707–1754), who was a novelist as well as a scholar of Greek in her own right. Tieken-Boon van Ostade's basic assumption is that the section of Sarah Fielding's network focused on in the paper is a closed network cluster,

consisting of family, friends and fellow authors, and that it was instrumental in the development of her writing career in various ways. In the light of Fitzmaurice's (2000b) comments on coalition networks it may be argued that Sarah Fielding contracted strategic alliances in her network in order to successfully publish her literary works. The question Tieken-Boon van Ostade wants to answer is whether the network was indeed dense and closed, and how this influenced the linguistic norm in the network. To accomplish this she "provide[s] a reading of the biographical introduction to the edition of the Fieldings' letters – one of the rare sources of information concerning Sarah Fielding's life at that time [though cf. Battestin and Probin 1996: xviii] – in the light of the concept of social network analysis as described by Lesley Milroy" (Tieken-Boon van Ostade 2000d: 293).

The approach is less concerned with the methodology of social network analysis than with the linguistic reality of the network, namely the spelling practice of Sarah Fielding in her letters to several different correspondents, in light of the available biographical information. It is therefore descriptive in nature and does not provide a quantitative model. A number of points made by Tieken-Boon van Ostade, however, will be applicable when devising such a quantitative model for analysis of the Walpole network. In the description of the Fielding network Tieken-Boon van Ostade notes, for example, that the correspondents "all knew each other in a variety of capacities" (Tieken-Boon van Ostade 2000d: 294), in other words, their relationships had one or more functional elements, such as those involved with being co-author, housemate, or family-member. In a network strength analysis this means that the actors' relationships were characterised by differing degrees of multiplexity, which a model would have to reflect quantitatively as well. Tieken-Boon van Ostade points out that

> [t]he link between Sarah Fielding and Richardson was not without its complications, as Richardson and Henry Fielding were declared literary rivals. Sarah, therefore, "was caught in an awkward position. On the one hand there was her deep family and artistic loyalty to Henry, and on the other an unrestrained artistic admiration for Richardson's writing" (Battestin and Probyn 1993: xxxi) (Tieken-Boon van Ostade 2000d: 294).

A quantitative model for the analysis of a network must therefore also be able to reflect the differences in so-called emotional content of the relationships. Again, Fitzmaurice's notions of reciprocity and asymmetry (Fitzmaurice 2000b) seem to be highly appropriate in this case: Fielding allowed her brother Henry to correct, or, more accurately, to change the spelling and punctuation in her novel (for the corrections did not always actually improve the text as such). This reveals at least some kind of asymmetry in the relationship.

Tieken-Boon van Ostade identifies the cluster in the Fielding network as a high-density one, which also included a number of more peripheral members. As noted above, a close-knit network "might impose on its members a linguistic norm which would function independently of Standard English and which may serve as a means of identification for the network in question" (Tieken-Boon van Ostade 2000d: 292–293). Citing Milroy, she adds: "according to Milroy, network clusters are even 'more important means of compelling normative consensus than *overall* density [of the network]' (Milroy 1987: 137)" (Tieken-Boon van Ostade 2000d: 295). At first glance, Sarah Fielding's network therefore seems more likely to illustrate language maintenance rather than change. Tieken-Boon van Ostade shows, however, that the different relationships within the network each have their influence on the distribution of linguistic changes in progress in Standard English, within the network. She supposes an influence of Henry Fielding and possibly their mutual lifelong

friend James Harris (1709–1780) as central members of the network cluster on the language of Sarah Fielding and her friend and fellow writer Jane Collier (*ca*. 1715–1755), who was also a member of the network cluster, and looks at the distribution of epistolary spelling versus the printer's spelling that was developing into the standard in the eighteenth century (see Osselton 1984).

It is difficult to test the hypothesis of linguistic influence for a number of reasons. Firstly, Tieken-Boon van Ostade raises the point of "the scantiness of the material" that is available for analysis (2000d: 296). Since "Henry Fielding was not an eager letter writer [...] only about seventy letters have survived", and "there is [...] no published edition of either Jane Collier's letters or of those of James Harris" (Tieken-Boon van Ostade 2000d: 296). Moreover, Sarah Fielding's surviving letters (fewer in number than those of her brother) "all date from the period after Henry's death in 1754" (2000d: 296). This makes comparison of the language of these correspondents very difficult. After Henry Fielding's death, according to Tieken-Boon van Ostade, Sarah had two new role models occupying the gap left by her brother. Her literary model was Samuel Richardson, and her scholarly mentor was James Harris. Therefore, "[t]he question presents itself whether she adopted either of these men's language as her linguistic norm to replace Henry's former position in this respect" (Tieken-Boon van Ostade 2000d: 297).

Against the background of the conflicting models of epistolary spelling and public spelling as discussed by Osselton (1984), Tieken-Boon van Ostade shows that "in her use of extra initial capitals, [Sarah Fielding] distinguishes between the relative formality of her letters" (2000d: 298). The most formal letters were written to James Harris, and in these letters the spelling is closest to the printed standard. Sarah Fielding's spelling of the weak verb past tense and participle endings, which varied at the time between *-ed* and *-'d*, shows a

less clear pattern: all studied correspondents are "ahead of the printers' practice in their private spelling" (Tieken-Boon van Ostade 2000d: 299) and Sarah Fielding seems to be "experimenting with [a] new spelling form" at a time "which coincides with the date of her first attested letter to Harris" (2000d: 299). Sarah Fielding's linguistic competence allowed her to distinguish a different style of writing to her different correspondents. "As for her language," Tieken-Boon van Ostade concludes, "it seems quite likely that she picked up the use of extra initial capitals from Richardson: in his letters he generally applies the rule fairly consistently." Samuel Richardson, as a printer, would also have represented the printed standard she aspired to in a conscious manner in her most formal writings.

A problematical part of this analysis is that there are so few data, and, although interesting, no full statistical dataset is provided in the article. It is therefore impossible to say whether the findings are significant, or to compare them with other data. Also, lack of data from and about other correspondence by the Fielding network members makes it difficult to interpret these findings in the broader context of the network. It is very interesting to see that Tieken-Boon van Ostade finds an example of change that goes against the expected direction of change from the higher social class to a lower social class: Sarah Fielding seems to be influenced by a man, Richardson, who was to all intents and purposes her social inferior. Tieken-Boon van Ostade shows once more that social network analysis is a promising tool, which I believe is even more true when the analysis is more objectively quantified in a model and can thus be easily tested and compared. In passing, the paper shows another possible tool for quantification of the closeness of relationships: Tieken-Boon van Ostade uses epistolary formulas to assess the level of formality between the Sarah Fielding and her correspondents. I believe this may be succesfully used

as a tool for quantification of social networks, such as was undertaken in Tieken-Boon van Ostade (2011) for the Lowth network.

Bax (2000) writes about the so-called Streatham Circle, named after a series of portraits by Sir Joshua Reynolds, at the time decorating the library at Streatham Park, which were commissioned by Henry Thrale (1728–1781) and which depict his family and friends. One of these friends was Samuel Johnson. Bax notes that "the existence of the Streatham portraits suggests that their subjects form an identifiable group, or a social network in the terms of the Milroys' study of Belfast speech, with the Thrales at its centre" (Bax 2000: 277). In his analysis of the network Bax focuses on a model for analysing social networks and social ties in a quantitative manner, rather than the more discursive approach that was prominent in most of the papers focusing on SNA and its application to the eighteenth century up to that moment. His aim is to "devise a network strength scale (NSS) which will be applicable for the study of social networks in earlier times, in particular the eighteenth century" (2000: 278).

In her study of the Belfast network, Milroy uses a NSS based on "indicators of ... network attributes" which measure a subject's network integration, "by assigning them one point for each of the following conditions they fulfill" (Bax 2000: 279). Indicators for membership of a high-density, territorially based cluster are the following:

- Having substantial ties of kinship in the neighbourhood (more than one household, in addition to the informant's nuclear family);
- working at the same place as at least *two* others from the same area;
- the same place of work as at least two others of the same sex from the area

- voluntary association with workmates in leisure hours (Milroy 1987: 141–142, as quoted by Bax 2000: 279).

The choice of these indicators is based on the criterion that network strength indicators "must reflect … conditions which have repeatedly been found important in a wide range of network studies, in predicting the extent to which normative pressures are applied by the local community". In addition, "[t]hey must be recoverable from data collected in the field and easily verifiable" (Milroy 1987: 141). Milroy, however, cautions that "an entirely different set of criteria for measuring network structure [than the one proposed above] might, with equal validity, have been chosen" (1987: 143), as long as the "two principles of verifiability and of building on the findings and implications of previous network studies" (1987: 143) are not violated. In that way, her NSS can be adapted to fit a different network in a different place and time by using different indicators, which would also make it a useful tool for sociohistorical linguistics. Bergs (2000), in the same volume as the other Manchester papers, also notes that social network analysis with the use of a NSS is a viable option for studying linguistic influence in earlier periods of time (in his case the Middle English period), and he stresses that adaptation of the criteria to suit the time and context is of great importance. Nevalainen and Raumolin-Brunberg (2003: xxx) call for the need to provide **social embedding** for the data found. It seems clear that the conditions used by Milroy mentioned above are indeed not very compatible with the reality of eighteenth-century networks: "people like the Streathamites had little in common with the Belfast working-class communities in which Milroy did her research; they were not working-class people. E.P. T hompson argues that it would even be misleading to project the term 'working class' onto eighteenth-century England (Thompson 1978: 134)" (Bax 2000: 279).

Bax therefore proposes different conditions, distinguishing between "a *functional* component, which relates to network patterns, and an *emotional* component relating to attitudinal factors" (Bax 2000: 279—280) which he proposes to combine in a revised version of the NSS model. The scores making up the functional component are calculated similarly to the indicators Milroy (1987) uses and which were mentioned above. The emotional score is calculated for each network member from an individual viewpoint: a network member receives points from each of the other network members based on how that correspondent viewed the relationship. This is in line with Fitzmaurice's (2000b) comments on the role of reciprocity and asymmetry in the strength of relationships. This leads to the revised network strength scale which Bax proposes, and which has been reproduced in Table 4.1. below. The "context defining group membership" denotes the basic denominator of the group, i.e. being a group of school friends or a group of colleagues. Network members can spend voluntary leisure time with each other either inside the context defining group membership (at school or at work, in breaks), or outside of it (at home, at a sports club).

***Functional component* – One point is assigned to network contacts A and B for each of the following conditions that they fulfil with regard to each other**	
(a)	being family (kinship/marriage)
(b)	living in the same household
(c)	having a professional relationship
(d)	interacting as members of the same formal club
(e)	living in the same place and knowing each other
(f)	spending voluntary leisure time together inside the context defining group membership
(g)	spending voluntary leisure time together outside the context defining group membership

***Emotional component* – Each term classifies how contact A views network contact B. Only B is assigned the corresponding points:**
close friend (3 points)
friend (2 points)
acquaintance whom A likes (1 point)
acquaintance whom A dislikes (-1 point)
enemy (-2 points)

Table 4.1. The proposed network strength scale for the study of eighteenth-century English (Bax 2000)

Bax'ss model identifies Johnson as "the central network contact" (2000: 288) in that he has the highest total functional and emotional score, and Bax states that it is therefore likely that Johnson was in a position to exert linguistic influence on his network contacts. The central role of Johnson in the network is "not a surprise" for "those readers who are familiar with the Streatham Circle" (Bax 2000: 288). Bax, however, notes the importance of being able "to arrive at the same conclusion by means of a relatively objective quantification method", and argues that "if this method works with Johnson, it will work with individuals whose position in the network is less easily predicted without the aid of a NSS" (Bax 2000: 288–89). Our instincts about networks and network positions provide useful insights, but a more objective view on a network may take analysis a step further. This is one of the most important arguments for using a semi-objective quantification method such as a NSS for social network analysis.

I use the word semi-objective rather than objective here, because much of the quantification model as proposed by Bax still depends on the instincts and deductions of the researcher. Bax notes that "[u]nlike with functional relationships, any classification of emotional relationships may appear to be a major stumbling block, if only because feelings resist quantification" (Bax 2000: 283). A reliable working model for objective

quantification of relationships would have to take into account the existence and influence of emotional relationships, but would also have to be able to quantify them as objectively as possible. This can partly be achieved by taking into account Bax'ss comments on the subjectivity of the available sources for data on emotional relationships. Drawing on the nature of material found in primary source documents such as diaries and private letters, he ranks several methods of determining network members' opinions about other network members in order of reliability and subjectivity of the data, as is represented in Table 4.2. below.

The most reliable method in trying to ascertain information on personal relationships Bax considers "to be the examination of diaries that were not meant ever to be read by anyone but the diarist". He notes, however, as a complicating factor in doing so that "not all diarists could express themselves freely, dreading the possibility that their records fall into the wrong hands" (Bax 2000: 284). A second option is to look at private texts in general:

> An examination of private texts may eventually lead to an inventory of features which governed a diarist's classification of emotional relationships. With such *subjective feature lists* an attempt can be made at classifying relationships which a diarist had with people he or she did not write about clearly in explicit terms (Bax 2000: 284).

Methods 1 to 7 in the overview in Table 4.2. above may therefore be seen as presenting a decreasing scale of reliability, which unfortunately often coincides with an increasing scale of availability of the type of data needed for the analysis. A possible solution to the problem that arises from this lies in the combination of several – more or less objective – quantification methods and

models into one amalgamated model, as will be developed further on in this study.

Least readily available	Method 1	A's true opinion of B is found in A's diary	**Most reliable**
	Method 2	Reconstruction of A's opinion of B by means of A's subjective feature list based on A's diary	
	Method 3	A's opinion of B is found in A's letters to B	
	Method 4	A's opinion of B is found in A's letters to C/A's words are reconstructed in C' diary	
↓	Method 5	C's impression of the true relationship between A dn B is found in C's diary	↓
	Method 6	Application of researcher's own subjective feature lost to events described in texts/copying another researcher's reasoned classification of A's opinion of B	
Most readily available	Method 7	Copying other researchers' classifications of A's opinion of B (unclear what these classifications are based on.	**Least reliable**

Table 4.2. Methods of ascertaining an individual's opinion of another network contact (based on Bax 2000:284–85)

The papers discussed in this section do not yet fully answer the questions addressed in the introduction to this chapter, namely: "What problems do we encounter when applying the Milroys' research model to older stages of the language?", and "how can we study the spread of linguistic change (a) from one network to another and (b) within a network?" (Tieken-Boon van Ostade 2000c: 215–216). The most important problems identified by the papers discussed so far are a lack of data for accurate comparison and analysis (Fitzmaurice 2000b and Tieken-Boon van Ostade 2000d), the lack of a historiographically robust unified methodology (Fitzmaurice 2000b) and a lack

of objective quantification methods for different types of relationships (Bax 2000). Fitzmaurice (2000b) approaches the problem of historical robustness by introducing the concept of asymmetry and reciprocity to SNA. She emphasises the need for the combination of sociometric data with biographical data in order to achieve more robust results. Bax (2000) and Tieken-Boon van Ostade (2000b) contribute to the possibility of obtaining these sociometric data by introducing ways of more objectively measuring network ties by means of a NSS and an analysis of the use of epistolary formulas respectively. In the remainder of this chapter I will discuss later work on SNA in a historical context and focus on what this work contributes to a unified model for objective quantification of networks as will be attempted in this study.

4.3.3. The model refined

Bax (2002) approaches linguistic variation in the correspondence between Samuel Johnson and Hester Lynch Thrale from the perspective of Communication Accommodation Theory (CAT), based on Giles (1973), Giles *et al.* (1987), Coupland and Giles (1988) and Giles *et al.* (1991). He introduces the concept as follows:

> The Accommodation Theory was originally developed to analyse face-to-face conversations. Named Speech Accommodation Theory (SAT), it deals with motivations underlying and consequences that are the result of ways in which speakers adapt their language and communication towards others … The broader label, Communication Accommodation Theory (CAT), emerged much later in 1987 (Giles *et al.* 1987) and covers aspects of communication other than those of speech (Bax 2002: 10–11).

In this paper Bax tries "to show that some of its components are indeed valuable to the analysis of reciprocal correspondence" (Bax 2002: 9) in a

historical context. Bax'ss idea that CAT can be used in a historical and written context is strengthened by "Bell, who applied CAT to the speaker-audience relationship in mass communication, … being structurally different from face-to- face interaction , because it involves 'a disjunction of place, and often also of time, between communicator and audience [and] most media content is also not ad lib speech, but scripted in whole or in part' (Bell 1991: 70, 72)" (Bax 2002: 11). Bax argues that the characteristics of mass media communication mentioned by Bell are very similar to some of the characteristics of historical letters, which would at first sight make them seem less suitable to analysis within the framework of a communication theory based on face-to-face conversation. In letters from earlier stages of the English language the writer and addressee are usually also separated by time and space, and the notion of "scripted" language "is easily associated with the standard recommendation found in early modern and eighteenth-century manuals for letter-writers, namely that letters should be 'especially spontaneous' and 'comparable to conversation' (Biester 1988: 151–52)" (Bax 2002: 11). However, Bell (1991) showed that a CAT-based approach could be used for mass media, and consequently this should be possible for letters too. Bax also notes the importance of understanding contemporary attitudes in particular to letter-writing in relation to the linguistic evidence to be obtained:

> Because eighteenth-century polite correspondence was subject to particular normative constraints, any accommodation-based analysis would have to take these into account. For example, one needs to distinguish the public from the private mode, as letters were commonly read by, and read to, other people than the recipient (Bax 2002: 12, following Anderson and Ehrenpreis 1966: 274).

A seemingly familiar and 'talkative' letter may therefore not always reflect the most private of writing styles and, importantly, it consequently does not accurately reflect the spontaneous and informal speech of a correspondent that a sociohistorical linguist is after (see also chapter 1 above). Conventional salutations and opening formulas of letters must also be read in light of contemporary norms for the use of such forms: writers and addressees knew and shared these norms, and therefore a certain degree of self-evaluation is always present in even the most familiar and private of letters.

Upon studying the language of the letters of Johnson and Mrs Thrale, Bax finds several forms of *converging* accommodation: two idiolects changing towards each other, or, becoming more alike in certain aspects. Thrale follows Johnson, for example, in using a certain type of literary allusions in her letters, which Bax calls "accommodation through content" (Bax 2002: 13, following Ferrara 1991: 216). Notably, Traugott and Romaine (1985) find that "oral modes of expression, whether spoken or written, focus on contextualized participant interaction", which is based largely on "shared knowledge" (1985: 14) between the speaker and the listener (see also Pratt and Denison 2000: 406 on the use of "Language of Allusion"). The allusions used by Thrale and Johnson can be placed firmly in the domain of shared knowledge, and therefore this lends a certain orality to their written language, strengthening the argument that CAT can indeed be applied to traditionally written text-types, since not all written text is free from oral components. Secondly, Bax considers lexical convergence:

> Johnson, famous for his heavy Ramblerian prose style …, 'remains associated with Latinate lexis and syntax' (Percy 2000). If he adapted his style of writing to that of his correspondents, as Chapman (1952: I, xix) claims but does not show, one expects to find a moderate use of multi-

> syllabic words in his letters to Thrale ....[as] she was known for a colloquial style of writing (Bax 2002: 15).

Indeed, Bax finds that the percentage of polysyllabic words in Johnson's letters to Thrale is almost exactly the same as that in Thrale's letters to Johnson. He does not, however, provide data on Johnson's or Thrale's language in letters to other correspondents or other private and public writing, and in that sense no conclusion can be drawn on the question whether we are dealing with convergence here or not, or whether any accommodation actually takes place. Similarly, no data for comparison are provided when he considers the percentages of use of paratactic constructions (simple and compounded clauses) and hypotactic constructions (using clauses linked by means of subordinating conjunctions) in the letters of Johnson and Thrale. Bax says that according to Redford (1986) "Johnson adapted his language to Thrale's conversational style, relying heavily on simple and compounded structures, and exhibiting 'a decided preference for paratactic rather than hypotactic constructions' (Redford 1986: 208)" (Bax 2002: 17). He reports a comparable percentage of hypotactic and paratactic constructions in the language of both correspondents, as reproduced in Table 4.3.:

	Thrale	**Johnson**
Simple/paratactic structures	78.2 % (n=772)	73.6 % (n=1,033)
Hypotactic structures	21.8 % (n=215)	26.4 % (n=371)

Table 4.3. Syntactic structures in the Thrale-Johnson correspondence (as taken from Bax 2002: 18)

This supports Redford's claim s about Thrale's style. However, no data for comparison are given, for example from their language use in letters to other correspondents, so no conclusions on the existence and direction of convergence can be drawn definitively.

Finally, Bax provides a background for the explanation of the types and directions of convergence that have been claimed to exist between Johnson and Thrale. He writes: "Johnson was to some extent conscious of his own accommodative behaviour ... He maintained that plainness, ease and simplicity force the writer to ignore decorum, insisting that the variety among one's correspondents demands flexibility in style" (Bax 2002: 19, following Biester 1988: 155). This is in agreement with the premise in CAT that "the addressee is a full participant in the formulation of the message" (Kraus 1987: 96). Furthermore, CAT hinges on the idea that the outcome of "reduction of linguistic dissimilarities" (Giles at al. 1991: 3) may produce results that are beneficial to either or both of the parties involved, "as increasing behavioural similarity is likely to increase, among other things, a person's attractiveness and interpersonal involvement in the eyes of the recipient" (Bax 2002: 19). It is, according to Bax, "one of the model's central predictions ... that convergence reflects the need for social approval" (Bax 2002: 11). This recalls the point made by Fitzmaurice (2000b), that in asymmetrical relationships "the recipient of a non-reciprocal tie may actually be the transmitter of social influence" (2000b: 272) and, when extended to the SNA framework, of linguistic influence.

In the case of Johnson and Thrale, Bax stipulates that Johnson may have purposely accommodated his language to Thrale's – though he might have done so subconsciously as well – in order to remain a recipient of the Thrales' wealth and hospitality. Originally a poor man, he enjoyed the comforts of being a "virtual member of the Thrale household" (Bax 2002: 20), remaining, however, always that: a "virtual" member, a position not quite as secure as a family tie. Bax notes that "while he clearly enjoyed these physical comforts, Johnson longed primarily for Mrs Thrale's company and conversation" (Bax 2002: 20). These factors may explain the (claimed) instances of linguistic

convergence from Johnson in the direction of Mrs Thrale. Mrs Thrale, on the other hand, is seen to accommodate towards Johnson in using a style of writing including allusions, like Johnson, in her letters to him. She clearly had something to gain from the connection as well, and Bax argues that "Thrale had had literary ambitions ever since she was a child; she had always had the need to show off her talents as a writer, and was still looking for approval. She found it in Johnson who was interested in her writing" (Bax 2002: 20).

What Bax'ss paper shows is that ideas from CAT may be beneficial to undertaking a social network analysis of eighteenth-century networks in describing the strength of dyadic ties, rather than for measuring the network structure as a whole. Importantly, CAT explains how "convergence may bring rewards as well as costs; potential costs include possible loss of personal and social identity" (Bax 2002: 21). Indeed, the data suggest that Thrale, who was close to Johnson in a traditional sense of social network ties, does not converge with him on all accounts. When applying SNA to an eighteenth-century network, it may therefore be very valuable to keep in mind some of the concepts derived from CAT described here, such as participant interaction and the costs and rewards of potential convergence. The model was already shown to overlap in a certain sense with coalition formation and the idea of asymmetrical relationships as described in Fitzmaurice (2000b). The concept seems especially relevant when the results of a linguistic analysis of a network dyad do not confirm first intuitions, or the hypotheses drawn from a NSS or other forms of network analysis.

Tieken-Boon van Ostade and Bax (2002) study two members from the network of the publisher Robert Dodsley, Robert Lowth and Samuel Johnson, each in the context of their own networks, in order to explain the different roles they occupied in those networks and why Robert Dodsley would employ

them for some of his major publishing projects. These projects comprised the publication of an authoritative English dictionary (Johnson 1755) and grammar (Lowth 1762). Tieken-Boon van Ostade and Bax note that, similar to what Fitzmaurice (2000b) argues on the subject of coalitions, social contacts and social networks as a whole often also have an instrumental function. Robert Dodsley conceived several printing projects, notably ones that have turned out to be very important in the codification process of the English language, and for these projects he employed people from his broader network, such as Johnson and Lowth (although the idea that Lowth's grammar was conceived as a printer's project has since been modified by Tieken-Boon van Ostade 2006). Johnson and Lowth "do not appear to have known each other", though "both men have in common the fact that they were close friends of Dodsley's" (Tieken-Boon van Ostade and Bax 2002). The roles Johnson and Lowth each occupied in their own networks, however, were very different from one another.

As already discussed above, Samuel Johnson is shown to be a central member of his network and therefore a possible early adopter: "holding a central position in Mrs Thrale's personal network", for instance, "he was able to influence others in several ways" (Tieken-Boon van Ostade and Bax 2002). This is supported by the earlier findings in Bax (2000) and (2002), and in later work by Sairio (2005). In accordance with Bax (2002) it is argued that Mrs Thrale accommodated her language towards that of Johnson in her spelling of words ending in *-ic*, such as *music* and *physic*, by using the more archaic forms ending in *-ick*. The argument is strengthened by way of illustrating Johnson's literary and other non-linguistic influences on people around him: "When Johnson, central to the Streatham network, spoke highly of [Fanny Burney's novel] *Evelina,* that was good enough reason for others to appreciate it, too"

(Tieken-Boon van Ostade and Bax 2002). Johnson may therefore broadly be seen as an example for the people around him, a model to be imitated, linguistically and non-linguistically.

In contrast, Lowth occupies a more peripheral position in his own network: "His career was a fairly mobile one: he rose from being an Archdeacon of Winchester all the way to the Archbishopric of Canterbury ... He was thus both socially and geographically mobile, and therefore of interest from the perspective of social network analysis as a possible linguistic innovator" (Tieken Boon van Ostade and Bax 2002). In order to find out whether Lowth was indeed a linguistic innovator, more needs to be known about his language and his network. Tieken-Boon van Ostade and Bax note that

> what has been found so far is that there is a certain amount of variation in all kinds of aspects of his language, spelling, morphology, grammar, which correlates with the style of his letters (formal vs. informal), and the norm which he presents in his grammar appears to reflect the way in which he thought his most elevated correspondents ... spoke or wrote (Tieken –Boon van Ostade and Bax 2002).

Lowth may therefore be said to be sociolinguistically competent, being aware of the network and social positions of several of his correspondents. According to Tieken-Boon van Ostade and Bax, "in this respect he would have acted like a true innovator, creating a bridge between his own middle-class social network and that of members of the aristocracy with whom he was proud to be in touch" (2002).

The most relevant part of the paper for the model which is being developed in this study, however, concerns the way in which Tieken-Boon van Ostade and Bax (2002) reconstruct part of Lowth's network, by looking at epistolary formulas. In the article the technique is used to try to identify the

writers of anonymous letters, but the concept of a "hierarchy of terms" of address and salutation as represented by Baker (1980: 48) may be very well suited to supply additional information when reconstructing social networks, especially concerning the strength of network ties, and the relative closeness between network contacts. "Lowth employed a system of expressing relative closeness to his correspondents which ranged from 'his faithful humble service', through 'esteem' and 'affection' to 'affection' combined with greetings from his wife, a formula which is only found in the letters to his closest friends" Tieken-Boon van Ostade and Bax write. This type of index of relationships based on commonly used epistolary formulas may be of great assistance in evaluating or even calculating the strength of network ties, especially since "often this kind of information is not available through conventional sources, such as biographies or literary analyses" (Tieken-Boon van Ostade and Bax 2002).

Fitzmaurice (2002b) focuses on client-patron relationships and the role of humiliative discourse (as evident from the use of modal expressions) in the context of politeness theory and SNA. The paper is not so much a typical social network analysis, as an analysis of a particular type of discourse in a certain social network – in this case a client-patron network. "Social network analysis provides a means of describing a particular historical speech community in terms of the nature of the social relationships among its members" (2002b: 240), Fitzmaurice summarizes, and her paper can indeed be viewed as descriptive rather than overtly methodological in nature.

According to Fitzmaurice "there were multiple strategies for the linguistic expression of politeness in earlier stages of English [by which] one could adapt one's manner of speaking to meet the requirements of the situation and the addressee" (Fitzmaurice 2002b: 241). One of the stylistic

ways of expressing politeness she mentions is the choice and use of modal verbs (see also Fitzmaurice 1994 and 2000a) and it is this usage which is analyzed for the client-patron network to which Addison belonged, centred around literary patron Charles Montagu, Lord Halifax (1661–1715) (see Fitzmaurice 2002b for a more comprehensive account of the meaning and content of such relationships and their formal manifestations). "Most of the men who belonged to Addison's own social network were clients or would-be clients of Charles Montagu, Earl of Halifax," Fitzmaurice writes (2002b:245), and therefore the language use within the context of the network is compared to that of the network members in correspondence with their patron, as baseline data. No information is given on how the network visualization presented by Fitzmaurice (2002b: 247) was achieved, but she does mention that "the ties contracted between the actors within this network vary in terms of duration, strength of tie (weak or strong), purpose of connection (for example patronage, friendship, professional collaboration), and the reciprocity and symmetry of tie" (Fitzmaurice 2002b: 247). All of these factors can of course be translated into a NSS for any network.

What is most interesting is that Fitzmaurice identifies a difference in the frequency and distribution of the use of modals between different genres of writing, and between the baseline data from the social network as a whole and the data from the client-patron correspondence with Halifax. "Overall," she writes, "modals occur less frequently in essays than in letters" written by the network members (2002b: 250). The usage and distribution in a so-called "'patronage' subcorpus" which she compiled (2002b: 251) is less straightforward:

> The following modal verbs occur more frequently in the patronage letters than in the corpus of letters as a whole

> on average: *can, shall, could,* and *might*. However, not surprisingly, each client differs from the other and each departs from the letter corpus mean with respect to the frequency with which particular modals are chosen (Fitzmaurice 2002b: 251).

However, the data presented in an Appendix to the article (Fitzmaurice 2002b: 265) show that the distribution of the different modals found in the baseline data, the letter-corpus which is taken as a means for comparison, is also very varied per correspondent, comparable to the data from the essay corpus. Fitzmaurice notes that "[i]n particular, genre, idiolect, and style are three contexts that prompt the examination of modal use and frequency in order to determine the extent to which modals participate in the construction of humiliative discourse" (2002b: 252). A closer look at the modal use across registers and styles for a number of authors reveals that, aside from idiolectal preferences, "Halifax's clients appear to choose modal verbs more frequently for their patronage letters than for other epistolary purposes", but also that "it is not clear that a particular modal verb stands out from others for its humiliative qualities" (2002b: 256).

Fitzmaurice finally also carries out a semantic-pragmatic analysis of stance markers co-occuring with the modal auxiliaries (Fitzmaurice 2002b: 256–257). Stance markers are ways in which speakers express their attitude about what they are saying. The question she investigates is in which ways modals such as *can, could, should, may , will* and *might* interact with stance markers such as

> *to*-complement clauses controlled by epistemic verbs like *hope*, or *that*-complement clauses controlled by verbs like *wish*, conditional clauses, and indirect clauses ... [and] so-called comment clauses that modify the expression of a

> proposition in parenthetical fashion (Fitzmaurice 20002b: 256).

She concludes that, for the seekers of patronage, which she focused on in her study, "the overall impression of their appeals is that of a highly conventionalized discourse that is nevertheless practiced with subtlety and invention in order to enhance the standing and face of both client and patron" (2002b: 261). In other words, the regular interaction of stance markers and modal verbs leads to certain standardized expressions functioning as humiliative markers, i.e. markers of politeness. What is important for our development of SNA as a model for historical linguistic analysis is that these types of polite discourse may represent what can be called an "unequal, nonreciprocal tie" (2002b: 260). Fitzmaurice notes that her

> study suggests that corpus linguistic techniques for the analysis of linguistic features in large bodies of text may be usefully deployed in conjunction with the social description facilitated by social network analysis to provide a context for the close analysis of discourses produced in an historical speech community (Fitzmaurice 2002b: 262).

I would like to extend this, to say that the existence of humiliative discourse in a language sample may point to a certain type of tie between correspondents, and that similar analyses it may fruitfully be applied in the analysis of network and tie strength. This is especially the case considering the fact that what is here termed variation "according to register (letters or essays) as well as purpose of … communication" (Fitzmaurice 2002b: 261) may be reinterpreted on a social network level as mainly variation according to relative network position: after all, in the patronage sub-corpus all correspondents occupied a

network position which was asymmetrical and non-reciprocal, whereas in the letter corpus the relationships were more varied and more equal.

Bax (2005) provides a quantitative analysis of the language of Samuel Johnson and Fanny Burney (1752–1840) in a social network perspective. The point that Fanny Burney and others were influenced in their language by Samuel Johnson has been made numerous times before, for instance in Bax (2002) and Tieken-Boon van Ostade and Bax (2002), and before these mostly in qualitative rather than quantitative studies, such as Wimsatt (1948) and Sörensen (1969) and many others, according to Bax (2005: 160). Bax notes that "[w]hile qualitative studies ... are obviously far from simple guesswork, they remain impressionistic, which makes it difficult to incorporate their (and similar) observations in quantitative sociohistorical linguistic studies of the English language" (2005: 160). His paper addresses the question as "to what extent … Fanny Burney [was] the 'slavish imitator' that Sörensen (1969: 390), among others, claims her to be", and he proposes to take "a *quantitative* rather than qualitative perspective, … by addressing the problem within the framework of social network analysis" (Bax 2005: 160).

The paper does not add much to the method of SNA in the ways which have been discussed for the previous papers, but it does illustrate, once again, the working of a centre/periphery structure in a network on influencing the spread of linguistic change and variation. In the Streatham Circle "Johnson, because of his fame and central position ... set the norm" (Bax 2005: 161). In order to test whether Fanny Burney was a follower of this norm, Bax devised a corpus consisting of stylistically differentiated genres from different time periods in Fanny Burney's life. He compares Johnson's so-called *Ramblerian* prose style – based on the language Johnson typically used in the *Rambler* essays – with the private and public writing of Fanny Burney in the period

before she was acquainted with Johnson, during the period when she knew him personally, and during the period after his death. This is done in order to see "whether or not any adoption of Johnsonian features was maintained, for it may be expected that an adoption is at least partly reversed once a source of influence is lost, as in the case of a when a network cluster, which might previously have acted as a norm-enforcing mechanism …, breaks up" (Bax 2005: 163).

Bax found that for the linguistic features studied, namely the "use of emphatically positioned prepositions ... a particular type of abstract noun phrases... Latinate borrowings ... and their use of long noun phrases" (Bax 2005: 163), Fanny Burney does indeed change her usage for all features studied after she had met Johnson: "Her style [became] heavier once she had met, and continued to meet, Johnson"; for all that, Bax argues, "the trends dicussed show that the term 'slavish' is altogether undeserved with respect to the linguistic features discussed in this paper" (Bax 2005: 175). SNA is invoked mainly to explain the motivations for Fanny Burney's "imitative patterns" (Bax 2005: 172). One of the most important points made about this by Bax, which is also relevant for the analysis of Walpole's language, is the question "to what extent [Burney] was actually conscious of these changes". As he argues,

> [i]f she wasn't at first, she cannot have been unaware of the unflattering comments made by some of her contemporaries, notably James Boswell ... who informed his readers that 'the ludicrous imitators of Johnson's style are innumerable' (quoted in Görlach 2001: 264). Surely she must have recognised some of Johnson's style in her own writing, being a connaisseur of his prose style herself (Bax 2005: 175).

When discussing linguistic influence at a micro level, the question of change taking place from above or below the level of consciousness is an important

one; it is, however, also one that cannot directly be answered, especially when focusing on a single dyad of network contacts. The possibility is something that should always be present at the back of the researcher's mind when interpreting change and influence, as a possible complicating factor.

Bax notes that in the case of Burney and Johnson, linguistic influence can be attributed to both conscious and subconscious factors: as a result of her extensive private reading as a young girl, Burney came to admire Johnson and specifically *The Rambl*er (Bax 2005: 172), and her admiration must have grown when she became acquainted with him. This type of asymmetrical relationship can lead to both conscious and subconscious linguistic influence or accommodation, as has been shown in Bax (2002). However, in the network graph of the Streatham Circle "it appears that Burney was more than 'just' a member of Johnson's circle", that is to say, "she and Johnson were members of the same network cluster" (Bax 2005: 174). Since "in historical social network studies linguistic influence is understood to spread from central group members to the so-called followers ... [Johnson's] influence would have been considerable with regard to his position in the Streatham Circle as a whole"; he adds, however, that "it will have been even greater in the network cluster in which Johnson was a central person" (Bax 2005: 174), and to which Fanny Burney also belonged. Because the density of network clusters is "a more important norm enforcement mechanism than overall density" (Milroy 1987: 51, as quoted by Bax 2005: 174), we may expect a great deal of subconscious and conscious linguistic influence from Johnson on Burney and other members of the network cluster. It is therefore shown by Bax'ss paper that it is worthwhile to zoom out to a slightly more macro level than the micro-level study of just a network dyad. What is more, I would argue that in order to gauge the influence of Johnson on his network properly, one would have to

study the language of all of the network cluster members in letters addressing each other as well as in letters addressing people outside the network. This would provide enough baseline and interactive data for comparison to reach true conclusions, but is probably impossible to achieve with historical data. Due to its size, with the Walpole correspondence we may come a long way toward reaching that goal.

Sairio (2005) offers another view on the model for quantifying social relationships which was presented in Bax (2000) discussed above. Her "paper discusses Dr. Johnson's membership in the Thrale family circle from the perspective of his language use, specifically the degree of linguistic involvement revealed in personal letters" (Sairio 2005: 21). She compares the results of her analysis of the Thrale family with those found by Bax (2000) for his Streatham network using a network strength scale (NSS). Their networks show a great degree of overlap. Sairio has several comments on the NSS suggested by Bax (2000), which, as dicussed in section 4.3.2, was based on the idea that all relationships consist of a functional and an emotional component. According to Sairio: "the classification of emotional relationships is complicated, because they are subjective and bound to vary and change over the course of time", and also, "[a]bsolute categorisation from *friend* to *enemy* facilitates the classification of relationships, but perhaps a continuum from *immediacy* to *distance* would better represent reality" (Sairio 2005: 23).

This is what Sairio attempts in her study, by using a more objective method of quantification: she studies "how Johnson's membership in the Thrale household in the 1770s and early 1780s is reflected in his letters" (Sairio 2005: 24). Whereas the classical network strength model of social network analysis is, for use in historical periods, very much dependent on the interpretation of background information, the model of analysis used by Sairio

(2005), based on the work on involvement by Chafe (1985) and Palander-Collin (1999a, 1999b), hinges purely on linguistic elements, namely features of involvement. In this model a higher degree in linguistic involvement is expected to coincide with a closer relationship in network terms (comparable to a higher network strength score in the classical model). Sairio explains the different types of involvement as follows:

> Chafe (1985: 116–17) distinguishes between three kinds of involvement in conversation. **Ego involvement**, or self-involvement of the speaker, is most obviously seen in the use of first person pronouns. **Interpersonal involvement** between the speaker and hearer is indicated e.g. by the frequent use of second person pronouns. The speaker's **involvement with the subject matter** expresses an ongoing personal commitment to what is being talked about. These features typically refer to spoken language, but can also be applied to personal correspondence (Sairio 2005: 24).

What is more, Sairio writes, "[i]n a later study by Chafe and Danielewicz (1987: 107, 111), personal letters are seen to show the highest amount of ego involvement when compared with conversations, lectures and academic papers" (Sairio 2005: 24). She therefore suggests that when the language in letters between two correspondents shows more linguistic markers of involvement, these correspondents are expected to be closer to each other in terms of network strength as well.

Sairio shows that her results for a network analysis of the members of the Thrale family using the model of involvement largely coincide with Bax'ss (2000) findings for this largely overlapping network of people, particularly in placing Johnson centrally in the network, but her results for some of the other network contacts differ from those achieved by using a NSS as in Bax (2000). Sairio concludes: "The results ... suggest that linguistic involvement is a

relevant indicator of the closeness of the relationship between two people", but she allows for the fact that "the ... writer's inner world and mental state should also be considered", since "a lower level of involvement can indicate the writer's reduced enthusiasm for taking part in a discussion in a personal and committed way", whilst "this does not necessarily mean that the writer does not consider the recipient as close to him as previously" (Sairio 2005: 34). I believe that the use of linguistic involvement is a very helpful analytic instrument, especially when adopted in combination with other indicators for strength of network ties, such as a NSS. An involvement model allows for even more objectively quantifying network relationships than a NSS does. However, there is of course a great risk of circular reasoning when a linguistic feature is used to determine a network structure which is then used to explain linguistic variation within that network. In chapter 6 I will argue that for this reason linguistic involvement cannot be used as a stand-alone model.

With her analysis of the language of Robert Lowth and his correspondents, Tieken-Boon van Ostade (2005b) expands on the work done by Nevalainen and Raumolin-Brunberg (2003) on the language of the Early Modern English period. In this paper, she carries out a quantitative analysis for eighteenth-century English on the basis of the letters of members of Robert Lowth's social network, concerning the fourteen linguistic features which were analyzed for Early Modern English by Nevalainen and Raumolin-Brunberg (2003). For each feature Tieken-Boon van Ostade (2005b) presents data which show their continuing development in eighteenth-century English, though the results cannot be taken as representative for the English Language in general since they are largely based on an educated writer's idiolect. Tieken-Boon van Ostade notes that "almost all linguistic items discussed here continue their development as predicted by the data in Nevalainen and Raumolin-Brunberg

(2003)", and she argues that it will therefore "be interesting to see whether this will be confirmed by the eighteenth-century extension of the CEEC [Corpus of Early English Correspondence]" (Tieken-Boon van Ostade 2005b: 152b). This extension of the corpus, now known as CEECE, or "Corpus of Early English Correspondence Extension", was at that point in time in the process of being developed.

Tieken-Boon van Ostade uses social network analysis in a qualitative manner for the Lowth network, in order to account for variation in the patterns found in her focused corpus, when compared to the representative CEEC. She discovered, for instance, "that Lowth's usage largely agrees with that found in the letters of his correspondents" (Tieken-Boon van Ostade 2005b: 152), and adduces five cases in which "Lowth might have been influenced by the language of people in his social network" (2005b: 153). It is noted that due to lack of data for comparison, and because she performed a qualitative network analysis, it is "difficult, if not impossible, to prove that influence actually took place" because, for example in the case of Lowth's use of generic ONE which is very similar to that of one of his correspondents William Warburton (1698–1779), influence "may have travelled from either to the other" (2005b: 153). Once more, this illustrates the need for objective quantification tools for network analysis, and also for larger datasets. A final point made in the article is the usefulness of lists of presentation copies for published works, in this case of Lowth's book *Isaiah, A New Translation* (1778), to reconstruct the social network. Tieken-Boon van Ostade notes that "Lowth may not have known all individuals on the list intimately, but he had become Bishop of London the year before *Isaiah* was published, and he possibly used the occasion of the publication of his new book as a means to consolidate his acquaintance with a number of important people" (Tieken-Boon van Ostade 2005b: 137). In effect,

and as Tieken-Boon van Ostade (2011: chapter 5), following Fitzmaurice (2000b), elaborates upon later, this is an attempt at coalition formation. When no other data exist, or when a dataset contains anonymous letters, other means of reconstructing the network, such as using presentation lists of works when the network of a published author is under consideration, can be very useful.

I will briefly mention Fitzmaurice (2007) here. This is an article in which the author discusses how "register-oriented practices are related to the linguistic behaviours associated with social networks" (2007). In other words, Fitzmaurice investigates whether shared linguistic practices within a social network may be expanded outside this network to a broader register-based scope, in this case "the wider community of periodical writers" to which Addison and his circle belonged (Fitzmaurice 2007). Fitzmaurice "submit[s] that social networks provide the scaffolding for the study of discourse communities in a particular milieu such as early eighteenth-century London" (Fitzmaurice 2007). Walpole's correspondents, however, as will be shown in the different chapters that will follow, do not clearly belong to one type of discourse community, as they occupy not only different relational but also different professional functions inside and outside the network.

In this paper Fitzmaurice takes as a starting point the idea that "Social networks analysis (SNA) provides the basis for examining the way in which actors cooperate in specific projects in order to achieve certain goals", and that it "examines the ways in which the nature of ties between individuals shapes linguistic behaviour" (Fitzmaurice 2007). The first statement strikes a very similar chord to the concept of coalition formation (see Fitzmaurice 2000b), which was already discussed above. The paper is mostly concerned with the concept of the discourse community, which is then related to an underlying

social network structure. This is, however, not as relevant for the Walpole network as for Addison's circle of friends, for whom Fitzmaurice (2007) demonstrates this concept. I will therefore not expand on this topic further here, but will in the chapters to follow pay attention in my analysis of the Walpole network to the network strengthening effects of coalition-like relationships which are once again illustrated in Fitzmaurice's paper.

Sairio (2008) continues earlier work on the quantification of network ties (see Sairio 2005) for her network of Bluestockings, which partly overlaps with the Streatham Circle discussed by Bax (2000, 2002) and Sairo (2005). In this paper Sairio looks at innovation and language change within the Bluestocking network centred around Elizabeth Montagu, paying special attention to the influence of network structure and the positions of individual correspondents. The case studies presented in the paper are analyses of the use of the progressive, a relative innovation at the time (see Strang 1982, Arnaud 1998 and Rissanen 1999), and of the use of preposition stranding, a structure which was stigmatized in contemporary grammars (see Fischer 1992 and particularly, Yáñez-Bouza 2006, 2008). Sairio does not provide a full description of the quantitative analysis of the network, but offers a number of remarks and descriptions which are useful when devising a method for carrying out such a task. For instance, she describes the method and sources used for reconstructing the network. Firstly, she "tracked [Elizabeth Montagu's] social contacts through time with the help of contemporary studies and historical documents". Secondly, she used previous studies on network members, and thirdly she "used two biographical letter collections of [Elizabeth Montagu's] correspondence ... letter editions and biographies of other Bluestockings and their contacts ... and the manuscript letters" that she was able to access (Sairio 2008).

Sairio continues with a description of important concepts in social network analysis, with a special focus on Rogers and Kincaid's adopter categories (1981: 90; cf. section 4.2 above). She concludes that, based on network structure and position, most of the Bluestocking network members are "potential early adopters and early majority", though "network ties were not found to be considerably influential in the epistolary use of either the progressive or preposition stranding" (Sairio 2008). This conclusion may at first sight seem somewhat disappointing when considering SNA as a tool for historical linguistic analysis, but a number of conclusions may be drawn from Sairio's analysis. Firstly, she notes that in the case of preposition stranding, "the stigma which preposition stranding carried seems eventually to have been more important for Montagu than the example of her network contacts" and also that "there were indications that social class influenced the use of preposition stranding" (Sairio 2008). This is interesting in light of Bax's comment (2005:175) on the influence of conscious processes on language use, as mentioned above.

Secondly, Sairio notes a number of times in her analysis of the Bluestocking network that an insufficient number of instances is found for analysis. The Bluestocking corpus was (at the time Sairio wrote the article in question) ca. 151,000 words in size, but it appears that even a considerably larger corpus such as the one I have compiled on the basis of the extensive Walpole correspondence may not produce the desired results either. I will return to this problem in chapters 5 and 6.

In this light I want to mention Tieken-Boon van Ostade (2008d), who provides an account of reconstructing Robert Lowth's social network by way of an analysis of his letters. More importantly Tieken-Boon van Ostade tries "to assess the extent to which the letters actually attested can be considered to be

representative of the total estimated size of Lowth's correspondence" (2008d: 52). She also points out that because of the relatively few extant letters, ca. 300 in all, in contrast to the wealth of material available on, for instance, the Bluestockings and Walpole, "Lowth's corpus can ... serve only a relatively limited purpose when we wish to analyse systematically any linguistic influence he might have undergone form members of the social networks to which he belonged" (2008d: 64). Tieken-Boon van Ostade notes that on the basis of the material available it is nevertheless possible "to identify the different styles of writing he had at his disposal ... when addressing people with whom he had a certain type of relationship – i.e., his communicative competence" (2008d: 64); this was after all the main object of her analysis. She finds that Lowth varies his spelling of certain words in letters to certain correspondents, which in this case may be seen as an effect of social network position as well, but her analysis as presented in Tieken-Boon van Ostade (2011) demonstrates that this type of patterned variation is evident in Lowth's use of grammar, too. Even when not enough data are available to test hypotheses of linguistic influence and change, useful insights may be gained into the linguistic competence and correspondent-based stylistic variation at a micro-level.

Sairio (2009a) deals with preposition stranding in the Bluestocking Corpus (cf. Sairio 2008), and provides a more detailed description of a proposed NSS for network analysis. The sources for network reconstruction that Sairio mentions are similar to those in Sairio (2008), namely "contemporary documents and modern research, ... early twentieth-century editions of Montagu's correspondence", editions of correspondence of other network members, "recent studies on Elizabeth Montagu and the Bluestockings ... and the letters in the Bluestocking Corpus" (Sairio 2009a: 113). Sairio has compiled a "database of [Elizabeth Montagu's] most frequent

contacts and geographical mobility" based on the information in all of these sources (2009a : 113). This may be seen as the contextual and biographical information which I mentioned earlier as the basic information for a classical NSS (see Henstra 2008 and 2009 as well as Bax 2000; see also sections 4.3.1 and 4.3.2. above and chapters 5 and 6). For the Walpole correspondence, such a database would be too great an undertaking, considering the timespan of the correspondence, since the letters range in period between 1725 and 1797, and because of the sheer size of the corpus, which comprises more than 5500 letters. However, the number of extant letters sent between correspondents can perhaps give some indication of the intensity of their relationship. As I will discuss in chapter 6, however, one's closest relationships at a certain point in time need not always be reflected in the frequency of letters exchanged or in the sheer existence of a correspondence: Walpole and Gray made a tour of the continent together, but at that time did not write to each other because of their physical and geographical proximity, nor would one expect to find a correspondence between a husband and his spouse at a time when they lived under the same roof and neither of them travelled extensively. This does not mean, however, that such relationships are not close. This paradox is partly resolved by the other functional parameters that are taken into account when devising a NSS, such as sharing a place of residence and having a bond of kinship or friendship.

Sairio states that "[s]ocial network analysis considers the structure and contents of a network, particularly by investigating the density and multiplexity of network ties", which can both be quantified by means of a NSS (Sairio 2009a: 116). She expands on the model proposed by Bax (2000, see also Table 4.1. above) which in turn follows Milroy (1987) "quite closely" in the functional components of the relationships considered (Sairio 2009a: 119), as

well as Fitzmaurice (2007, as discussed above). Sairio notes that her "NSS has been designed for measuring the tie strengths of an eighteenth-century social network of the upper levels of society, in which literary and other joint projects were an essential factor" (Sairio 2009a: 118). She notes practical problems in using the emotional components Bax (2002: 279-82) integrated in his model:

> The emotional component is no doubt a useful complement to the functional analysis, but somewhat problematic from a practical point of view ... Few kinds of data will allow for reliable quantitative classification of emotional components. Also, the emotional distance does not rule out structural network influence: a contact classified as an "enemy" may be a powerful opinion leader or norm enforcer, whose general influence in a network is enough to pressure an individual to adapt (Sairio 2009a: 119)

This is certainly a factor to be reckoned with: the strength of a dyadic tie may influence a network member's position in the network as a whole, whereas it is not clear whether a single emotional relationship has any bearing on linguistic influence on a less detailed level: the network (cluster) as a whole. In chapter 6 I will present a model for the historical analysis of networks in which I aim to minimise the effect of such ties on the perceived network strength of the network as a whole, by combining more than one method of measuring strength in order to be able to provide a reliable picture of both dyadic relationships and the network cluster as a bigger structure.

Sairio (2009a) suggests that in past research "it would appear that either the methods of measuring network tie strength have been somewhat inadequate, or that patterns of linguistic variation are so complex that they do not readily correspond with network structure or position" (2009a: 120). Sairio's proposed NSS in this paper "consists of functional components and a

broadly defined emotional component between two network contacts, and the scores apply only in a particular moment in time" (Sairio 2009a: 120), as was argued by Fitzmaurice (2000b) and myself (Henstra 2006, 2008) as well. She follows some of the parameters proposed by Fitzmaurice (Fitzmaurice 2000a: 204, as discussed above, see also Fitzmaurice 2007), combining objective and subjective relationship criteria:

> the longevity of relationship, geographical proximity, formal social relationships in term of comparative rank (social equal/superior/inferior), and type of relationship (intimates/equals/acquaintance; friendship/ competition) (Sairio 2009a: 120).

According to Sairio, "most of these [criteria] have been used in previous studies, but their combinations appears to be elegantly simple and generally applicable" (2009a: 121). This is important in light of Milroy's comment that indicators of an individual's integratedness into his or her community may be changed, but "must reflect the conditions which have repeatedly been found important in a wide range of network studies, in predicting the extent to which normative pressures are applied by the local community", and that "they must be recoverable from data collected in the field and easily verifiable" (Milroy 1987: 141). Sairio selects criteria which "represent geographical proximity, type of relationship in terms of intimacy—distance, network connectedness, network collaboration, social rank, and the longevity of relationship" (2009a: 121), which leads to the NSS in Table 4.4. below.

1. Same domicile		
	yes often (e.g., during the season) rarely (e.g., abroad) no	2 points 1 point 0.5 points 0 points
2. Type of relationship		
	intimates acquaintances not acquainted	2 points 1 points 0 points
3. Same social circle		
	yes: primary yes: secondary no	2 points 1 points 0 points
4. Professional collaboration		
	yes: balanced/"giver" yes: "receiver" no	2 points 1 points 0 points
5. Social status		
	equals superior inferior	2 points 1 points 0 points
6. Previous network connection		
	yes no	1 point 0 points

Table 4.4. The proposed network strength scale parameters in Sairio (2009a)

Sairio notes that "these categories mainly convey multiplexity", and that "the frequency of interaction is implied in some categories, but there is not enough reliable data to justify a separate category of frequency" (Sairio 2009a: 121). She adds that "an ideal addition would be to study the intensity of a network connection by the amount and frequency of correspondence, but this would require a very thorough record of letters sent and received, and existing letters do not provide a reliable source for this kind of study" (2009a: 121). In Walpole's case, such a record is already available in the separate indices of correspondence; however, only the record of extant letters is presented

comprehensively in the form of an index of letters (HWC 43). Although this list is not ideal in that it only provides a record of extant letters, the number of extant letters in Walpole's case is so large that I will be able to use these data – though carefully – as an indication of relative intensity of contact, albeit in a positive rather than a negative sense: the existence of many letters indicates close contact while the absence of letters cannot conclusively indicate that contact was not intensive.

Using the category "professional relationship", Sairio integrates Fitzmaurice's idea of coalition formation into the NSS (Fitzmaurice 2000a, 2000b, and 2002b; see also the discussion of these papers above and in chapter 5). Network collaboration in the Bluestocking circle "was particularly prominent [..., for instance] reading and commenting on each other's writings, and assisting in the printing processes and other types of publishing" (Sairio 2009a: 122). Similar "instrumental alliance[s]" (2009a: 122) are encountered in the Walpole network, for instance in the publishing endeavours Walpole undertook with the poetry written by Gray and West, and the collaboration between Walpole and his antiquarian friends such as Mann (see chapters 3 and 6) in Walpole's writings on these subjects. Sairio notes that "the coalition approach had particular advantages in that the complex questions of friendship and intimacy are avoided" (2009a: 122).

Sairio's case study shows that the hypothesis that "strong network ties correlate positively with the use of a familiar and somewhat stigmatised linguistic feature" (2009a: 131) is true "when the recipients were below Elizabeth Montagu in terms of social rank" (Sairio 2009a: 131). She also shows that preposition stranding was avoided and "[p]ied piping favoured considerably when the recipients were her social superiors" (Sairio 2009a: 131) Sairio continues that "[a]s linguistic variation was best explained including the

social variable of rank", which was already a part of the aggregate network strength score, "in the analysis, [she] suggest[s] that (historical) network analysis, especially in terms of tie strength, be accompanied with the sociolinguistic framework" (Sairio 2009a: 131).

In Sairio (2009b) the NSS discussed above is used, based on the same background as in Sairio (2009a), but it is extended with two further categories, i.e. age and gender, in agreement with both suggestions made in Henstra (2008) (see chapter 5). Sairio (2009a) already reflected on criticism which SNA studies have faced, for instance "Labov's (2001: 332-333) reanalysis of Milroy's (1987) figures", which "shows that gender appears in fact to be more important than the network effect" (Sairo 2009a: 120). Support for the extra parameter *gender* may furthermore be distilled from (perhaps even off-hand) comments, such as Tieken-Boon van Ostade's (2000b: 298) remark that "Sarah Fielding's relationship with Samuel Richardson, 'though very close indeed, could not, of course, have been as close as that with another woman'" (Sairio 2009b: 47, quoted from Tieken-Boon van Ostade 2000b: 298). This leads to the model in Table 4.5. below (Sairio 2009b: 150).

A full discussion of this model is provided in Sairio (2009b: 149-152). Sairio (2009b) also provides a detailed theoretical framework and background for social network analysis and the proposed NSS (2009b: 16- 36), much of which has also been discussed in the current chapter. Sairio concludes that "the Bluestocking network consists of strong ties, and Elizabeth Montagu's links to these friends did not vary a great deal in terms of tie strength" (2009b: 163). This rather homogeneous picture makes it harder, of course, to explain linguistic variation within the network in social network terms. Sairio finds, for instance, that her

> analysis of the network ties correlated significantly with the analysis of language and variation in the case of the progressive, less so in the case of spelling, and not at all in the case of preposition placement. Overall social network membership seems to underlie various significant changes that took place in Elizabeth Montagu's language use over the years (Sairio 2009b: 318)

1. Same domicile		
	yes often (e.g., during the season) rarely (e.g., abroad) no	2 points 1 point 0.5 points 0 points
2. Type of relationship		
	intimates acquaintances not acquainted	2 points 1 points 0 points
3. Same social circle		
	yes: primary yes: secondary no	2 points 1 points 0 points
4. Professional collaboration		
	yes: balanced/"giver" yes: "receiver" no	2 points 1 points 0 points
5. Social status		
	equals superior inferior	2 points 1 points 0 points
6. Age		
	same generation older generation younger generation	2 points 1 points 0 points
7. Gender		
	same other	2 points 0 points
8. Previous network connection		
	yes no	1 point 0 points

Table 4.5. The proposed network strength scale parameters in Sairio (2009b)

Furthermore, she notes that "social networks had an effect but different social variables were also shown to influence linguistic variation in varying degrees", and she suggests therefore "in line with Labov (2001) ... that social network analysis should be complemented with other frameworks to explain socially embedded language use" (Sairio 2009b: 318). I find it interesting that this is the case even though a number of these sociolinguistic variables had already been integrated as parameters into the NSS that was devised for the analysis of the Bluestocking network, for instance age, gender and social rank (parameters 5, 6 and 7). It would furthermore be interesting to see what the results of this type of analysis would be for a larger corpus of texts: the letters used in Sairio's corpus are a selection from the larger correspondence and a number of the analyses show relatively low instance counts

4.4. Concluding remarks

The papers discussed in this chapter have all contributed important insights into varying aspects of the historical application of SNA. Bax (2000) proposes a NSS for historical application, whereas Sairio (2005) discusses this NSS and compares it to a linguistic analysis of involvement features, finding overlap as well as differences in results. In later work she greatly refines the standard model for devising a NSS (Siario 2009a, 2009b). Tieken-Boon van Ostade and Bax (2002) demonstrate the usefulness of incorporating epistolary formulas in a network analysis and of using this as a means to identify network members and positions. Tieken-Boon van Ostade (2005b) mentions presentation lists as a means of identifying network contacts. When network contacts have already been identified, as is the case in the Walpole network, these methods may still aid to the study of network structure and strength, as sociometric network data. Finally, Fitzmaurice (2000a, 2002b) brings to mind the influence of text-

type and genre on the linguistic make-up of the material. Especially when incorporating linguistic measures of network strength, it is important to keep in mind that there are also other influences on the data, such as the text-type specific language use, and changes in the language over time, which should be reckoned with. The overall picture drawn by the studies discussed in this chapter is most importantly that there is a need for a method of quantifying network measures as objectively as possible and the need for a sufficiently large dataset to test such a method on, in order to be able to make any realistic claims about the applicability of SNA in a historical context. A discursive or purely qualitative approach combined with small datasets leaves too much leeway for free interpretation of unclear and inconclusive results. In the following chapters I will test several of the ideas put forward in earlier work on sections of the Walpole Network, and work towards a more objective model for quantification of network strength.