

Reconstructing Variation in the Speech Community: Evidence on Early American English Negative Constructions from the *Salem Witchcraft Papers*

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ABSTRACT

This paper deals with sociolinguistic variation in early American English. My analysis of some of the oral depositions recorded in the group of legal documents traditionally known as the Salem Witchcraft Trials (ed. Boyer & Nissenbaum 1977) focuses on the general applicability of Milroy's social network model to the reconstruction of past states of language. In this case, I will concentrate on the analysis of the two negative constructions that coexisted in early Modern English (i.e. Vb+not v. do-periphrasis) and on the correlation between the use of these constructions and the network score of each individual speaker. (Keywords: social network. linguistic variation. dialectal divergence. Early Modern English. colonial American English).

RESUMEN

Este artículo se ocupa de un fenómeno de variación sociolingüística en inglés americano temprano. El análisis de una serie de declaraciones pertenecientes al grupo de documentos de finales del siglo XVII conocidos como Salem Witchcraft Trials (ed. Boyer & Nissenbaum 1977) se centra en la posibilidad de aplicar el método de redes sociales diseñado por Milroy al proceso de reconstrucción de estadios históricos de la lengua. En este caso, me concentraré en el análisis de las dos construcciones negativas existentes en inglés moderno temprano (es decir. Vb+not v. perifrasis con do auxiliar) y en la posible correlación existente entre el uso de estas construcciones y la densidad de las redes sociales que caracterizan a cada uno de los hablantes. (Palabras Clave: red social. variación lingüística, diversificación dialectal, inglés moderno temprano. inglés americano colonial).

I. HISTORICAL RECONSTRUCTION: LIMITATIONS OF HISTORICAL INQUIRY

Historical sociolinguistics is concerned with the different ways particular linguistic functions and types of variation develop over time within specific languages or speech communities. This approach, which is justified on the grounds that language is a social phenomenon, implies that linguistic change is made possible "to the extent that it is passed from person to person in speaker encounters, in which the apparently disfunctional nature of language change is

counteracted by features of the communicative context" (Milroy 1997: 18).

By using the insight that social factors play an important role in linguistic change, different theoretical approaches to the social origins of linguistic change have been developed in the last two decades, based on the systematic observation and analysis of changes *in progress* in a specifiable social context. However, the linguist concerned with the reconstruction of phenomena of linguistic variation and change through the interpretation of data preserved from the past has to cope with two major limitations that strongly contribute to an impoverishment of the database of historical linguistics: [1] past states of language are attested only in writing, and [2] these written attestations are not equally representative of all aspects of the language of past states (Milroy 1992: 45).

Moreover, the analysis of linguistic data within a social context implies a previous knowledge of the general extralinguistic factors which seemed likely to give rise to linguistic differences within the community under scrutiny. Here, too, the nonlinguistic database which is relevant to the understanding of the links between a speaker's language use and the structure of his social relationships will necessarily be limited by the lack of real informants to a few accidental data: when compared with descriptions of present-day variation patterns, what we know about our *informants* (sex, age, social aspirations, etc) is but a bare outline, which frequently induces the linguist to a vague and even ambiguous use of the term *social*. In this situation, it is evident that the reconstruction and analysis of linguistic variation in past states of language must proceed along very different lines, and that the diachronist must have less ambitious expectations about results.

If the ideal sociolinguistic survey consists of a significant number of records of the speech of different representative members of a linguistic community, it is more than obvious that, as we try to go back in time, the representativity of the written samples rapidly drops, and so do the possibilities of interpreting the patterns of variation detected.

The real scope of these limitations as regards the analysis of linguistic variation in the history of the English language is neatly exemplified by recent variationist approaches to Old English texts, such as Toon (1976, 1983) and Hogg (1988). If, as Wormald (1977: 99) argues, literacy in Anglo-Saxon England was a strictly religious accomplishment, Old English data should be taken as representative of just a very limited set of registers and styles, and the scribes who copied these manuscripts represent only a very small part of the community. Even for the best attested periods, such as late Middle English and early Modern English, the small number of *informants* and their low degree of representativeness do not make it possible to interpret patterns of variation with the accuracy found in contemporary sociolinguistic surveys.

Because of these limitations, the interpretation of linguistic data from the past has been described as an *uncomfortable* science (Diakonis 1985); unless we are able to develop new, more creative insights, that counteract the scantiness of both social and linguistic data, the analysis of manuscript variation will continue to be a mainly speculative branch, and the role of the historical sociolinguist will be limited to choosing the best explanation among a wide set of possible explanations (Milroy 1992: 46).

II. THEORETICAL FRAMEWORK: THE NETWORK MODEL

The discussion in this section depends heavily on Milroy and Milroy (1985) and Milroy (1992), who establish a strong correlation between linguistic change and social ties. Their

theory is based on Granovetter's (1973) concept of interpersonal tie strength, which is understood as "a (probably) linear combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterise a tie" (p. 1361). In overall terms, *strong* ties are concentrated within groups, giving rise to local cohesion and linguistic maintenance, whereas *weak* ties act as bridges that tend to favour the rapid transmission of innovations and new information between groups or individuals. *Figure 1* (adapted from Milroy 1992: 179-180) sketches the different types of interpersonal ties, strong and weak, that can connect individuals and small groups to each other and to a larger society:

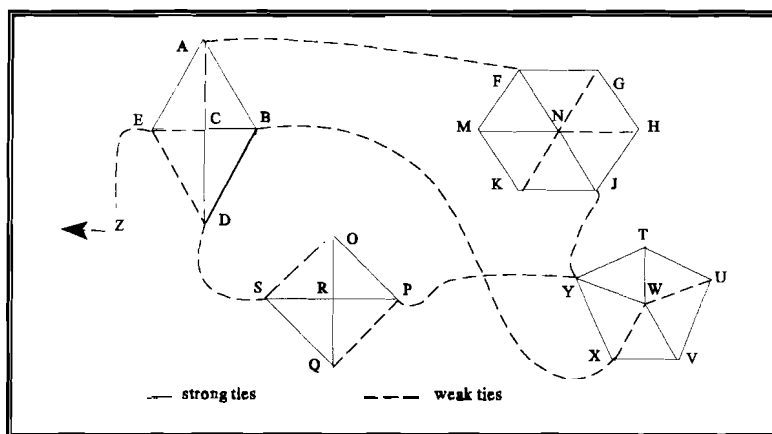


Figure 1: Idealized representation of a community of speakers

The important point that follows from previous research on the role of interpersonal ties in linguistic evolution is that whereas the diffusion of linguistic innovations is clearly facilitated in populations bound by weak ties, strong ties will rather contribute to the maintenance of the local linguistic norm (Milroy and Milroy 1985: 375). If we consider the community of speakers represented in *Figure 1*, the relationships contracted by individuals within the same group tend to be of a stronger nature than those contracted between individuals from different groups. Obviously, strong ties involve the investment of large amounts of time and energy on the part of individuals, whereas weak ties require little effort. Conversely, the amount of new information that is susceptible to be exchanged by two individuals linked by a strong tie is much more limited than in the case of weak ties.

Consider for example individual W above, who has strong ties with T, V and Y. If W tells a rumour to his three close friends and they do likewise, all the members of the group will hear the same rumour a second and a third time, since they all share the same friends (Granovetter 1973: 1366). However, before we discern a real *diffusion* of the rumour, this should be passed from one group to another through the intervention of individuals with external links, such as Y and X.

This model, which has shown itself capable of accounting for some puzzling patterns of variation and change in different varieties of present-day English (Milroy and Milroy 1985: Trudgill 1986), has also permitted new general descriptions of the patterns of diffusion of

linguistic change. In general terms, linguistic innovations are brought into the community by individuals that are *marginal* to it, and have weak links with one or more groups (such as Z in Figure 1). From here, innovations may eventually pass to the so-called early adopters, who are relatively central members of a group (E and C), and finally diffuse outwards from the centre (to A, B and D, and from here to the other groups in the community). Obviously, several conditions must be fulfilled for an innovation to be adopted, which will ultimately depend on the number of external links and on the range of benefits that will come about (in the subjective opinion of each individual) from the adoption of the innovation (Milroy 1992: 182).

Both conditions can be clearly illustrated by conflict between standard and vernacular norms: broadly speaking, the degree of exposition of each individual to standardizing incoming influences will depend on the number of his external contacts: moreover, while some of the members of a community will consider attachment to the mainstream standard norm as a possible means of fulfilment of their social expectations, others will rather opt (at least during these first stages of the change) for the maintenance of those vernacular forms that are seen as group markers within the community (the so-called *solidarity factor*, as described by Blom and Gumperz, 1972).

III. THE QUANTITATIVE ANALYSIS OF SOCIOHISTORICAL DATA: RECONSTRUCTING SOCIAL NETWORKS IN 17TH CENTURY NEW ENGLAND

This paper deals with sociolinguistic variation in early American English. My corpus consists of the group of legal documents traditionally known as the *Salem Witchcraft Trials* (Boyer & Nissenbaum 1977). These colonial documents, that include the transcripts of the oral depositions made during the trials following the witchcraft outbreak in 1692, reflect in a very faithful way excerpts of the speech of about 400 different native and non-native speakers of early American English from the area of Salem, Massachusetts. Moreover, the information given in these documents allows not only basic characterization of each individual (sex, age, origin, social class), but also a partial reconstruction of their social relationships (relatives, friends, acquaintances) and of the links between the different groups and factions that coexisted in that region.

Since I am primarily dealing with the language of the individual speaker, my first task here will consist in measuring each individual's degree of membership to the community. According to Milroy (1987: 141-142), the informant's *network score* can be calculated by assigning him one point for each of the following conditions he fulfils¹:

1. Membership to a high-density, territorially based cluster.
2. Having substantial ties of kinship in the neighbourhood.
3. Working in the same place as at least *two* others from the same area.
4. The same place of work as at least two others of the same sex from the area.
5. Voluntary association with workmates in leisure hours.

The resulting scale, which is capable of differentiating speakers in a very sharp way, ranges from zero (for individuals that are marginal to the community) to five (corresponding to individuals that are very closely integrated into it). Field studies in the city of Belfast

(Milroy 1987: 145-149) have shown that there exists a very close correlation between network score and other social variables, such as sex and age. In general terms, men score significantly higher than women (especially in societies where men constitute the main labour force), and young adults score higher than those over 40. Finally, there seems to exist a tendency for those individuals with the highest network scores to show higher degrees of attachment to the local linguistic norms, which indicates a rather clear relationship between language and network.

The application of the principles sketched above to past-time societies requires the identification of a given group of individuals and the reconstruction of the links that defined their interpersonal relationships, a task that will solely depend on the amount of information on each individual we have at our disposal. This implies the necessity of compiling revealing biographical data about each *informant*, which limits our analysis to individuals that, for some reason or other, acquired a certain degree of popularity within their community. Taking advantage of the available resources (that include, among other, personal correspondence, diaries, memoirs and essays), Wright (1994) has proposed the following reconstruction of a network formed by a group of early 18th century British writers, where double and single boxes are used to indicate, respectively, dense contacts and dense networks:

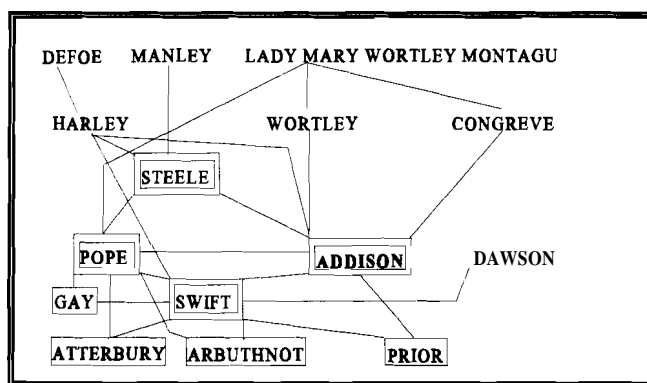


Figure 2: Sample network of early 18th century writers (Wright 1994: 96)

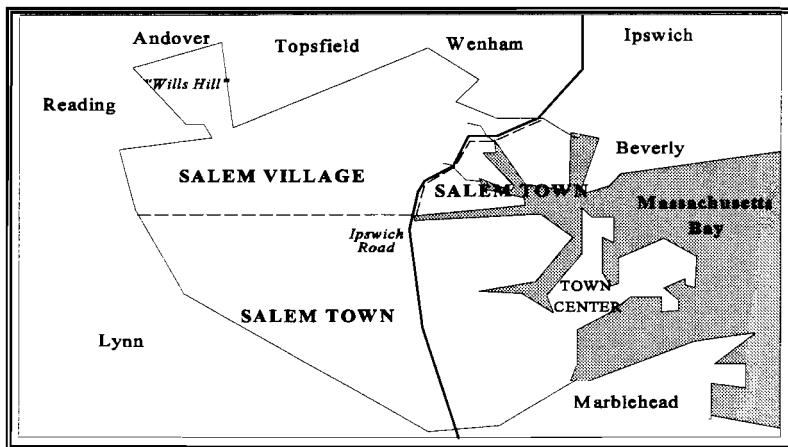
As can be seen here, the detailed analysis of the sources permits the reconstruction of the relationships among this group of writers, as well as the identification of those individuals that were more central and influential in "articulating and disseminating norms of polite conduct, taste and manners" (Wright 1994: 96-97). Further linguistic analysis of the corpus may contribute to our knowledge of possible parallel shifts in the language and in the style of these writers, a task already undertaken by some of the members of the Cambridge-Leeds Corpus project².

Problems arise when we intend to reconstruct the social interaction of the anonymous individual, as in the case of the speakers of early American English that participated in the Salem trials. Fortunately enough, the information recorded in these legal documents permits the almost complete reconstruction of the different groups that formed the rural community of Salem, and of the different degrees of kinship or acquaintance that linked each individual with the rest of his group. Moreover, the growing polarization experimented by the Salem community (a process that had started before the witchcraft outbreak of 1692) gave way to the

progressive emergence of antagonistic factions (which broadly corresponded to the impoverished rural society of Salem Village and the growing commercial settlement of Salem Town), and the trial papers allow a detailed reconstruction of both the process of social fragmentation and the degree of participation of each individual within his or her social cluster.

In order to calculate network scores for the largest number of speakers, I have developed a modification of Milroy's formula, which is based on the degree of participation of each individual speaker in the process of factionalism that affected Salem Village between 1660 and 1693. According to Boyer and Nissenbaum (1977: 10-14), the witchcraft outbreak must be seen as the direct consequence of the social changes that affected New England during the second half of the 17th century, transforming the "communal peasant society still essentially medieval in structure and values into the more recognizably modern world of early commercial capitalism" (p. 12). This process affected the villagers' lives in very different ways and degrees, depending on their membership to the traditional puritan society that had developed in the agricultural hinterland of Salem since its foundation in 1636. Our network scores, which are intended to reflect the degree of membership of each individual to the close-knit society of Salem Village, will thus be calculated by assigning one point for each of the following conditions he or she fulfills:

1. KINSHIP: Individuals with more than one known household in the neighbourhood, in addition to his own nuclear family.
2. GEOGRAPHICAL MOBILITY: Residents in Salem Village for, at least, five years.
3. SOCIOECONOMIC MOBILITY: Farmers, craftsmen and small entrepreneurs, whenever these activities did not mean a significant change of economic status.
4. VOLUNTARY ASSOCIATIONS: Individuals who were members of the Salem Village church (founded in 1672).
5. FRIENDSHIP: Individuals who did not have extensive friendship ties with the inhabitants of Salem Town.
6. GEOGRAPHICAL LOCATION: Individuals who lived far from the Ipswich Road (i.e. the road that divided Salem Village from Salem Town: see Map 1).



Map 1: Salem Town and Salem Village (based on Boyer and Nissenbaum 1974: 38 and 95)

Taking into account the data given by Boyer and Nissenbaum (1974) about many of the individuals who were involved in the witchcraft outbreak of 1692, the preceding formula has been applied to seven of the individuals cited in the Salem papers. I shall now concentrate, for a moment, on showing how network scores for two of the individuals selected for this research have been calculated. Let us start with Rebecca Nurse (with no kins in Salem Village: kinship: 0), a middle-aged prosperous naitron (socioeconomic mobility: 0) from the city of Topsfield who moved to the Ipswich Road (geographical location: 0) after her marriage with Francis Nurse (geographical mobility: 1). After 1672 Rebecca had remained a member of the Salem Town church (church membership: 0), where most of her friends lived (friendship: 0). This produces her a score of one, indicating that Rebecca Nurse was a rather marginal member of the rural society of Salem Village. George Jacobs Sr. (kinship: 1) was an old farmer (socioeconomic mobility: 1) from Salem Village (geographical mobility: 1; geographical location: 1j) and a member of the local church (church membership: 1j). This produces a score of 5, which indicates a very high level of group identity. *Table 1* shows the scores of all the individuals analyzed here:

	CONDITION						NSS
	1	2	3	4	5	6	
▼♀ B. Bishop	+	+	+	0	+	0	4
▼♀ M. Corey	0	+	+	+	+	0	4
▲♀ S. Good	0	0	0	0	+	+	2
▲♂ W. Hobbs	0	0	+	0	+	+	3
▼♂ G. Jacobs	1	+	+	+	+	+	6
▼♀ R. Nurse	0	+	0	0	0	0	1
▼♂ J. Willard	+	0	+	+	+	+	5

key: ▲middle-aged; ▼elderly; ♀ female; ♂ male

As can be seen from *Table 2*, the middle-aged Salem women have the *lowest* network scores of any subgroup (mean = 2.00), while the elderly men have the *highest* of any subgroup (mean = 5.50). This situation is typical of rural societies, where marriage is a factor of geographical and social mobility for many women, contributing to the existence of few strong ties between them and the rest of the social group, and where the maintenance of the traditional close-knit territorially-based networks largely relies on men. Moreover, the mean scores for the two middle-age groups (corresponding roughly to third-generation Americans) are significantly *lower* than those for the older individuals (second-generation Americans) in both sex groups (♀: 2.00/3.00; ♂: 3.00/5.50), which might be correlated with the progressive change from rural to urban New England³.

	♀	♂	TOTAL
▲	2.00	3.00	2.50
▼	3.00	5.50	4.00
TOTAL	2.75	4.66	3.14

key: ▲middle-aged; ▼elderly; ♀ female; ♂ male

ZV. THE SALEM WITCHCRAFT PAPERS AND SPOKEN EARLY AMERICAN ENGLISH

It has frequently been observed that the Salem witchcraft papers constitute one of the most revealing sources of information on the English spoken in New England by the end of the 17th century, and hence they have been used on numerous occasions by historical linguists interested in the reconstruction of spoken early American English (e.g. Alexander 1928; Kytö and Rissanen 1983; Görlach 1991: 46; Dillard 1992: 36-39; Kytö 1994: 37; Hiltunen 1996: Rissanen, 1997).

According to Boyer and Nissenbaum (1977: 39), the specimens of language recorded in the Salem papers represent:

...not the polished productions of well-educated people, but the groping and at times hardly articulate utterances of peasants more accustomed to the plow than to the pen, taken down by only slightly more literate court scribes nearly overwhelmed by the awesome demands placed upon them by the crisis of 1692.

The original corpus is composed of several thousand manuscripts from different American archives. All these texts were reassembled, collated and transcribed into a typewritten version in the 1930s. These transcriptions, which constitute the basis for the modern printed edition used for our project, were done with scrupulous care, and the documents can be considered accurate verbatim renderings of the original manuscripts (Boyer and Nissenbaum 1977: 32).

The documents in the Salem collection are short texts that cover different styles and categories. Obviously, oral depositions constitute the largest body of the corpus. From a linguistic point of view, these depositions show high degrees of variation, both orthographical (which may be due to scribal influence), morphosyntactic and lexical. Moreover, the papers provide full information on each speaker (sex, age, residence, acquaintances), which allows a rather complete description of the individuals' background and, most importantly, of the different social networks they form.

V. ANALYZING LINGUISTIC VARIATION IN THE SALEM PAPERS: THE USE OF DO-LESS NEGATIVE CONSTRUCTIONS

In a recent paper on the development of negative *do* in early Modern English, based on evidence from the *Helsinki Corpus*, Varela (1998) brilliantly shows that the generalization of this periphrasis did not take place until the end of the 17th century, and that spoken English played a decisive role in the process of regularization of the new periphrasis'. According to the statistical data he offers (p. 39), the use of the traditional do-less construction (*Vb + not*) experienced a steady decrease since the beginning of the early Modern English period, which became much sharper by the middle of the 17th century. The decline of the old construction and the acceptance of the new do-periphrasis is especially marked in the case of texts that represent actual speech (such as trials), as can be seen from *Table 3*".

**Table 3: The use of Vb+not constructions in two sections of the Helsinki Corpus
(based on data from Varela 1998: 39-40)**

	EModE1 (1500-1570)	EModE2 (1570-1640)	EModE3 (1640-1710)
<i>Helsinki Corpus</i> : all text types	81.4% (197)	77.4% (219)	44.8% (141)
<i>Helsinki Corpus</i> : trials	62.5% (25)	78.3% (36)	12.7% (7)

Although the 38 negative declaratives found in the seven excerpts of the Salem trials analyzed for this research⁷ show an overwhelming preference for the *do* periphrasis in negative declaratives (23 to 5), the rate of occurrences of the old Vb+not construction is slightly higher than in the two trials included in the EModE3 section of the *Helsinki Corpus*.

Table 4: The use of Vb+not and auxiliary do in three groups of EModE texts from c1700

	Vb+not	do-support
Helsinki Corpus [1640-1710] all text types	44.8% (141)	55.2% (174)
Helsinki Corpus [1640-1710] trials	12.7% (7)	87.3% (48)
<i>Salem Papers</i> [1692] excerpts	17.8% (5)	82.2% (23)

key: ▲middle-aged; ▼elderly; ♀ female; ♂ male

If this data is representative enough of the English spoken in Salem, this relatively frequent use of the *do*-less construction in negative declaratives could be related to the conservative character of early American English syntax: as Dillard (1992: 35) puts it, "it may well be that the *do*-periphrasis in the Massachusetts colony [...] was about the same as that of Shakespeare's plays, where 'archaic language' and 'fixed formal phrases' are the primary loci of the periphrastic structure". In other words, the descendants of the first American colonists tended to maintain the patterns of linguistic variation used by their parents, so that the use of auxiliary *do* in early American English did not increase after the generational change at the same rate as it did in British English, retarding the effects of the *constant rate effect* described by Kroch (1989: 192)⁸.

Table 5 represents the distribution of the five instances of the structure Vb+not found in the seven excerpts of the *Salem Papers* according to sex and age of the speaker. As can be seen here, variation between the traditional structure and the *do* periphrasis was a characteristic of second-generation Americans, whereas the new construction had already become general among speakers from the following generation. Moreover, Table 5 indicates that the old construction was preferred by male speakers (36.4%). It seems then, that the more conservative norm was maintained mostly in the speech of elderly men, who used vernacular variants at a higher level than women and, especially, more than middle-aged speakers.

**Table 5: Distribution of Vb+not in seven excerpts from the Salem Papers
according to sex and age of the speaker**

	♀	♂	TOTAL
▲	0% (0)	0% (0)	0% (0)
▼	7.7% (1)	57.2% (4)	25.0% (5)
TOTAL	5.9% (1)	36.4% (4)	17.8% (5)

key: ▲middle-aged; ▼elderly; ♀ female; ♂ male

Finally, the existence of a clear correlation between network structure and language use becomes evident from comparison between *tables 2 and 5*: as we can see here, the highest frequency of do-less negatives is found in the speech of those who are most firmly integrated into the community. In the following section I am going to analyze some of the implications of this type of correlation from the point of view of the individual speaker.

VI. LINGUISTIC VARIATION IN THE INDIVIDUAL SPEAKER: NETWORK SCORES AND LANGUAGE MAINTAINANCE

I will now turn my attention to the correlation between the social network scores calculated for each individual and his or her use of the old negative construction *Vb+not*. As can be seen from *Table 6*, three different patterns of variation can be distinguished regarding the use of the two types of negation that coexisted in early Modern English by the seven speakers analyzed here: (a) predominance of the structure *Vb+not*; (b) preference for do-support, and (c) absence of the old construction *Vb+not*.

	<i>do</i> -support	<i>Vb+not</i>	NS
▼♂ G. Jacobs	50.0% (2)	50.0% (2)	6
▼♂ J. Willard	33.3% (1)	66.7% (2)	5
▼♀ B. Bishop	66.7% (2)	33.3% (1)	4
▼♀ M. Corey	100% (8)	-	4
▲♂ W. Hobbs	100% (4)	-	3
▲♀ S. Good	100% (4)	-	2
▼♀ R. Nurse	100% (0)	-	1

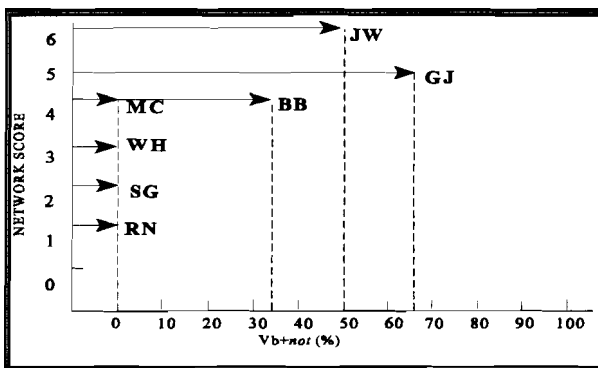


Figure 3: Individual scores for *Vb+not* against network scores

Obviously, these three patterns represent three consecutive diachronic stages in the evolution from *Vb+not* to periphrastic *do*, and their coexistence on the synchronic level is widely attested in texts from the whole period. However, what is most interesting about their

distribution in the seven excerpts from the *Salem Papers* under analysis is the highly significant correlation between the use of one of the two constructions and the network score of each speaker, which indicates that patterns of language use depended to some extent on network structure. In other words, a high personal score predicts relative closeness to the conservative norm, which implies the use of both *Vb+not* and periphrastic *do* (with varying degrees of variation, depending on the speaker's score): furthermore, a personal score under 4 indicates absence of lituistic variation, and a regular use of the *do*-construction (see *Figure 3*).

The relationship between the individual and the primary social group emerges under this kind of analysis as the most relevant factor of linguistic variation, so that those speakers whose network structure is most close-knit are also more likely to approximate to conservative vernacular linguistic norms, whereas speakers who do not conform so strictly to the social rules of the primary group are more exposed to external lituistic influences (which tend, in most cases, to linguistic standardization).

It was precisely within this last group of speakers that the «Id pattern of linguistic variation between the two negative structures probably disappeared from the system as a consequence of the generalization of the new *do*-construction. The abruptness of the change from the vernacular to the standard norm⁹, which is in clear contrast with Kroch's (1989: 192) *constant rate effect* (see *note 8* above), indicates that the standardizing influence probably coincided with the rapid economic and social changes that so deeply affected rural New England by the middle of the 17th century.

According to Boyer and Nissenbaum (1977: 12-13), whereas the old communal pattern had desintegrated in Western Europe already in 1650, New England had become a "conscious and temporarily successful effort to preserve the values of the older medieval order, and repulse the threats of the emerging era of competitive individualism" (p. 13). For this reason, the transition from the older order to the modern order took place in a rapid and abrupt way, which produced numerous social conflicts throughout the region (such as the Salem witchcraft outbreak)

The four speakers with 0 score for the *Vb+not* variant represent thus the initial stages of the process of stigmatization of the old construction in favour of the new *do*-periphrasis, corresponding to the beginning of the S-curve of diffusion (see *Figure 4*).

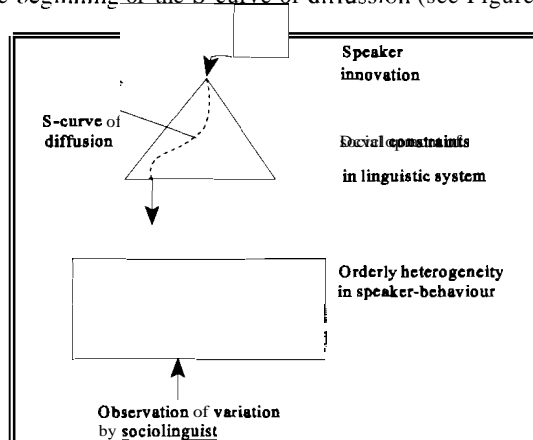


Figure 4: Model of transition from speaker-innovation to linguistic change (Milroy 1992: 170)

The apparently complete elimination of the Vb+*not* construction from the linguistic system of this group of speakers characterizes it as *innovative* as regards the spread and generalization of the new pattern of variation (i.e. absolute prevalence of do-support and stigmatization of Vb+*not* negatives). Following Rogers and Shoemaker (1971), social innovators can be described as marginal individuals with weak links to more than one group (consider, for example, Rebecca Nurse [network score: 1] who, while living in Salem Village, had maintained numerous kin and friendship links with Topsfield and Salem Town; see *Section III* above), whereas early adopters are relatively central to the group and conform to the group norms (such as Martha Corey, whose individual network score was over the local mean, calculated in 3.14; see *Tables 1* and *2*): only when the innovation has reached some of the most central individuals, will it start to diffuse to the rest of the group.

VII. CONCLUSION

In this paper I have tried to apply Milroy's social network model to the analysis of a group of negative declaratives extracted from seven excerpts from the *Salem Witchcraft Papers*. Differently to other applications of this model, the linguistic community under scrutiny here cannot be observed directly, so that the information on the interpersonal relationships of each individual can be reconstructed only from the partial data given in the trials. However, the nature of these documents and the chronological coincidence of numerous social changes affecting the social structure of this rural community have allowed a working reconstruction of the position and of the attitudes of seven different individual speakers in relation to the primary group.

From a linguistic point of view, my findings are in keeping with what Jespersen (1940: 426-429) and others have claimed about the obligatoriness of *do* in negative declaratives: Vb+*not* and do-constructions coexisted until the 18th century, although the new periphrasis became increasingly obligatory since the middle of the 17th century, especially in the spoken language (Rissanen 1985: 177; 1991: 322; Varela 1998: 43). As this study tries to demonstrate, the use of the Vb+*not* construction is slightly higher in the Salem papers than in the two contemporary British trials analyzed by Varela (1998), the old structure being widely preferred by second-generation American male speakers. Moreover, there existed a highly significant correlation between the use of any of the two negative constructions and the network score of each speaker, indicating that patterns of language use depended on network structure (rather than on other social factors, such as sex or age).

Finally, the abrupt change from Vb+*not* to the new do-construction in only one generation (see *Table 5*) can be seen as the direct consequence of the deep social changes that affected New England since 1650, which contributed to the rapid disintegration of the old close-knit society and the development of new types of interpersonal links, favouring thus the acceptance of external linguistic rules of relatively standardizing nature.

NOTES

1. These indicators of strength and intensity of network tie may vary in kind with community organization (Milroy 1992: 213).

2. Current research focuses on the gradual shift from the relative marker *that* to *wh*-pronouns (Wright 1994: 95-96)
3. The distribution of these network scores clearly resembles Milroy's (1980: 146-148) data about Ballyvaughan, an area where the traditional sex roles of rural societies have been maintained.
4. Other legal subtypes represented in the papers include oral examinations and testimonies, as well as written indictments, warrants for arrest, confessions and complaints
5. For a general description of the history of negative sentences with periphrastic *do* in early Modern English see Jespersen 1940: 426-429; Ellegård 1953; Traugott 1972: 146-148; Tieken-Boon 1985; Görlach 1991: 20; Kroch 1989: 191-192.
6. The five trials included in the EmodE section of the *Helsinki Corpus* are: *The Trial of Sir Nicholas Throckmorton* (EmodE1), *The Trial of the Earl of Essex*, *The Trial of Sir Walter Raleigh* (EmodE2), *The Trial of Titus Oates* and *The Trial of Lady Alice Lisle* (EmodE3).
7. Which corresponds to the oral depositions of the seven individuals cited before, with a total of almost 600 words.
8. Which implies that each generation of speakers of English used a different proportion of periphrastic *do*, which was increased at a fairly regular rate by the following generation.
9. Compare, for example, JW's frequent use of the old *Vb+not* construction (66.7% to 33.3%) to WH's generalized use of the *do* periphrasis (100%).

REFERENCES

- Alexander, H. (1928) «The language of the Salem witchcraft trials». *American Speech*, 3. 390-400.
- Blom, J.P. and J.J.Gumperz (1972) «Social meaning in linguistic structure: code-switching in Norway», in J.J.Gumperz and D. Hymes (eds.) *Directions in Sociolinguistics*. New York. Holt, Rinehart and Wilson, 407-434.
- Boyer, P. and S. Nissenbaum (1974) *Salem Possessed: The Social Origin of Witchcraft*. Cambridge, Mass: Harvard University Press.
- Boyer, P. and S. Nissenbaum (1977) *The Salem Witchcraft Papers: Verbatim Transcripts of the Legal Documents of the Salem Witchcraft Outbreak of 1692*. New York: Da Capo Press.
- Diakonikis, P. (1985) «Theories of data analysis: from magical thinking through classical statistics», in D. Hoaglin, M. Mosteller and J. Tuckey (eds.) *Exploring Data Tables, Trends and Shapes*. New York. Wiley: 1-5.
- Dillard, J.L. (1992) *A History of American English*. London-New York: Longman
- Ellegård, A. (1953) *The Auxiliary do: The Establishment of its Use in English*. Stockholm: Almqvist & Wiksell.

- Görlach, M. (1991) *Introduction to Early Modern English*. Cambridge: Cambridge University Press.
- Grariovetter, M. (1973) «The strength of weak ties», *American Journal of Sociology*, 78. 1360-1380.
- Hiltunen, R. (1996) «'Tell me, be you a witch!': Questions in the Salem Witchcraft trials of 1692». *International Journal for the Semiotics of Law*, 25. 17-37.
- Hogg, R. M. (1988) «On the impossibility of Old English dialectology», in D. Kastovsky and G. Bauer (eds.) *Luick revisited. Papers read at the Luick-Symposium at Schloß Liechtenstein, 15-18.9.1985*. Tübingen, Gunter Narr Verlag: 183-204.
- Jespersen, O. (1940) *A Modern English Grammar. Part V*. London: George Allen & Unwin.
- Kroch, A. (1989) «Function and Grammar in the History of English: Periphrastic *do*». in R. Fasold and D. Schiffrin (eds.) *Language Variation and Change*, Orlando. Harcourt Brace Jovanovich. 133-172.
- Kytö, M. (1994) «Towards a corpus of early American English», in M. Kytö, M. Rissanen and S. Wipht (eds.) *Corpora across the Centuries: Proceedings of the First International Colloquium on English Diachronic Corpora*. Amsterdam-Atlanta. Rodopi, 33-40.
- Kytö, M. and M. Rissanen (1983) «The Syntactic Study of early American English: The Variationist at the Mercy of his Corpus?», *Neuphilologische Mitteilungen*, 84. 470-490.
- Milroy, J. (1992) *Linguistic Variation and Change*. Oxford: Blackwell.
- Milroy, J. and L. Milroy (1985) «Linguistic change, social network and speaker innovation», *Journal of Linguistics*, 21. 339-384.
- Milroy, L. (1987) *Language and Social Networks* (2nd edition). Oxford: Blackwell
- Rissanen, M. (1985) «Periphrastic *do* in Affirmative Statements in Early American English», *Journal of English Linguistics*, 18. 163-183.
- Rissanen, M. (1991) «Spoken language and the history of *do*-periphrasis», in D. Kastovsky (ed.) *Historical English Syntax*. Berlin-New York: Mouton de Gruyter.
- Rissanen, M. (1997) «'Candy no Witch, Barbados': Salem Witchcraft Trials as Evidence of Early American English», in H. Ramisch and K. Wynne (eds.) *Language in Time and Space: Studies in Honour of Wolfgang Viereck on the Occasion of his 60th Birthday*. Stuttgart. Franz Steiner Verlag, 183-193.
- Rogers, E.M. and F.F. Shoernakers (1971) *Communication of Innovations* (2nd edition). New York: Free Press.

- Tieken-Boon van Ostade, I. (1985) «Do-support in the writings of Lady Mary Wortley Montagu: A change in progress», *Folia Linguistica Historica*, 7, 121-149.
- Toon, Th. (1976) «The Variationist Analysis of Early Old English Manuscript Data», in W. Christie (ed.) *Proceedings of the Second International Conference on Historical Linguistics*. Amsterdam. North-Holland Publishing Company: 71-81.
- Toon, Th. (1983) *The Politics of Early Old English Sound Change*. New York: Academic Press.
- Traugott, E. (1972) *A History of English Syntax*. New York: Rinehart & Winston.
- Trudgill, P. (1986) «The apparent time paradigm: Norwich revisited». Paper presented at the 6th Sociolinguistic Symposium. University of Newcastle upon Tyne.
- Varela, J.R. (1998) «The Use of Periphrastic *do* in Early Modern English Negative Declaratives: Evidence from the Helsinki Corpus», in J.A. Prieto, M.J. Gómez, J.C. Hidalgo and C. Sánchez-Palencia (eds.) *Proceedings of the 8th International Congress of SEDERI*. Sevilla. Universidad de Sevilla. 35-46.
- Wormald, C.P. (1977) «The Uses of Literacy in Anglo-Saxon England and its Neighbours», *Transactions of the Royal Historical Society*, 27, 95-114.
- Wright, S. (1994) «A communicative corpus of eighteenth century texts», in M. Kytö, M. Rissanen and S. Wright (eds.) *Corpora across the Centuries: Proceedings of the First International Colloquium on English Diachronic Corpora*. Amsterdam-Atlanta, Rodopi. 95-99.