Methods and Objectives in Contemporary Dialectology
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1. Introduction: Old-school dialectology

Dialectological scholarship has a long and venerable tradition, dating back at least to the nineteenth century. At that time, interest in non-standard geographical language varieties was sparked by three factors. First, the Neogrammarian movement considered dialect data an ideal empirical testing ground to study the alleged exceptionlessness of sound changes, and to explore intermediate stages in such changes. Second, against the sociocultural backdrop of ongoing migration, industrialization, and related developments, popular sentiment took a liking to the perceived authenticity of 'uncorrupted', non-standard dialects. Third, Harnisch (2009: 275) has noted that "traditional dialectology had an elementary interest in dialectal dissimilarity in so far as it attempted to explore the boundaries (isoglosses) of "old" language spaces along which the variants of certain linguistic features or bundles of features differed". Traditional dialectology thus overlapped with nineteenth-century folk beliefs that every language or dialect has, or ought to have, its sovereign territory (Auer 2004: 149–50). Needless to say, this view has remained alive and kicking to this very day and permeates, in particular, folk thinking about dialect landscapes in countries such as Germany (Hock & Joseph 2009: 343).

In any event, it follows from the foregoing discussion that in terms of the type of data studied, the motto in early dialectology was "the more dialectal and non-standard (and even archaic), the better". The methodical outgrowth of this preference is old-school dialectology's focus on "non-mobile old rural males" (see, for example, Chambers & Trudgill 1998: 29) as the ideal type of heavily dialectal informant. The linguistic knowledge of norms was typically tapped into by means of lengthy questionnaires, administered by (more or less) trained fieldworkers. Consider, for example, Alexander John Ellis' *The Existing Phonology Of English Dialects Compared With That Of West Saxon Speech* (1889). Ellis, a "gentleman-scholar of private means" (Shorrocks 2001: 1558), embarked on a rather monumental questionnaire-based survey of dialect pronunciations in England, Wales, and Scotland. The resulting database derives from a translation task (a "comparative specimen"), a shorter "dialect test", and a "classified word list." Ellis and his 811 helpers thus gathered data on 1,454 locations, an endeavour that took them more than twenty years (Ellis 1889: xvii–xix) and left us with one of the first systematic surveys of dialect speech in the British Isles. Starting at the end of the nineteenth century, systematic nationwide fieldwork projects like Ellis' increasingly resulted in massive dialect atlases, such as the *Atlas linguistique de la France* (ALF) (Gilliéron 1902–1910), or the *Survey of English Dialects* (SED) (Orton and Dieth 1962). Traditional dialect surveys and atlases, such as the ALF and SED, are primarily concerned with pronunciation and lexis, and analytical work based on them more often than not concentrates on the geographic distribution of individual dialectal features, one by one.

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In what follows, we sketch four advances that tend to set modern dialectology apart from old-school dialectology as outlined above: (1) an emerging interest in dialect grammar and morphosyntax (Section 2), (2) a focus on dialect speech and usage, as opposed to knowledge (Section 3), (3) big-picture aggregational analysis techniques (Section 4), and (4) perceptual dialectology approaches (Section 5).

2. Attention to dialect grammar

We have seen in the previous section that orthodox dialectology is predominantly concerned with phonetic, phonological, and lexical variation. There are two reasons for this bias. First, knowledge of pronunciation and lexis is arguably easier to check in questionnaire-based survey projects (which for a long time constituted the primary data source in dialectology) than knowledge of grammar. Second, there was — and still is — a sense in a large part of the dialectological community that morphological and (particularly) syntactic variation is not really patterned geographically. For example, Lass (2004: 374) contends that "English regional phonology and lexis […] are generally more salient and defining than regional morphosyntax" (for similar views, cf. Wolfram & Schilling-Estes 1998: 161 and, in the realm of German dialectology, Löffler 2003: 116). Despite these prejudices, recent years have witnessed a heightened interest in dialect grammar and morphosyntax. Kortmann (2002: 185) accounts for this development as follows:

At the turn of the 21st century there are new prospects for the study of dialect syntax. These are primarily due to developments outside dialectology, more exactly in linguistic theorizing. What is responsible for the currently observable rise of dialect syntactic research in several European countries is, in the first place, a broadening of the perspective in recent generative theory and language typology. No longer is it cross-linguistic variation only that matters. Variation within individual languages, too, is increasingly attributed important theoretical significance. One of the consequences of this is that a strong need is felt to improve the empirical basis for reliable descriptive generalizations and for drawing conclusions for linguistic theory. In other words, due to the rising interest in variation across dialects within generative linguistics and language typology, we are witnessing a period in which a much improved data situation will allow us to make substantial advances in exploring dialect grammar and integrating the findings into a larger theoretical frame.

Recent attention to dialect grammar has given rise to influential and generously funded projects such as the EDISYN (European Dialect Syntax) project (http://www.dialectsyntax.org/), and exciting new data sources specifically designed to study grammatical dialect variation — consider, for example, *the Syntactische Atlas Van De Nederlandse Dialecten* (SAND) (http://www.meertens.knaw.nl/projecten/sand/sandeng.htm) — and a host of research studies demonstrating that, after all, grammatical variation is often structured geographically (see, for example, Anderwald 2005; Britain 2007;

Glaser 2013; Grieve 2009; Spruit 2006; Spruit et al. 2009; Tagliamonte & Smith 2005).

3. Corpus-based dialectology

Section 1 also showed that the customary data source in traditional dialectology is questionnaire-based survey material. Contemporary dialectological scholarship, however, increasingly draws on dialect corpora — defined as "principled, possibly computerized, and broadly representative collections of naturalistic spoken (and sometimes written) dialect material" (Anderwald & Szmrecsanyi 2009: 1126) — to study dialect variability, especially in the English linguistics research community. Recently compiled state-of-the-art dialect corpora include the *Freiburg Corpus of English Dialects* (Hernández 2006; Szmrecsanyi & Hernández 2007) and the *Nordic Dialect Corpus* (Johannessen et al. 2009). Why is corpus-based dialectology preferable (at least in the context of some research questions) to survey-based or atlas-based dialectology? Szmrecsanyi (2013: 3–4) points out that corpora simply yield a more realistic linguistic signal. Survey-based or atlas-based dialectology is typically concerned with observations such as "in dialect *x*, the word *y* is typically pronounced *z*,", while corpus-based (i.e. frequency-based) approaches generalize quantitatively along the lines of "in dialect *x*, feature *y* is twice as frequent in actual speech as in dialect *z*". The survey-based or atlas-based method does have advantages: surveys and atlases are quite available and typically offer excellent areal coverage. Dialect corpora, in contrast, are (still) rare, and their areal coverage is often not as good as that in dialect atlases. Yet as a data source, corpora have two major advantages. First, the survey signal is, more often than not, categorical, exhibits a high level of data reduction, and may hence be less accurate than the corpus signal, which can provide graded frequency information and thus is better at dealing with continuous linguistic variation (see, for example, Wälchli 2009; Holman et al. 2007). So, although the exact cognitive status of text frequencies, admittedly, remains unclear (Arppe et al. 2010; Blumenthal 2011), it is likely that corpus-derived text frequencies better match the perceptual reality of linguistic input than discrete survey classifications do. Second, note that survey material is non-naturalistic and meta-linguistic in nature, focusing on linguistic knowledge. It relies on elicitation and questionnaires, and is analytically removed, via fieldworkers and possibly atlas compilers, from the analyst. This limitation is particularly acute when the atlas-based analysis is based on so-called "interpretive maps" (as opposed to "display maps"; see Chambers & Trudgill 1998: 25). By contrast, text corpora provide more direct, usage-based access to language form and function, and thus yield a more realistic and trustworthy picture (cf. Chafe 1992: 84; Leech et al. 1994: 58).

Exemplary recent corpus-based dialectology studies include Beal & Corrigan (2006); Hernández (2010); Herrmann (2005); Kolbe (2008); Pietsch (2005); Schulz (2010); Streck (2012); Tagliamonte et al. (2005); Wagner (2004).

4. Aggregational dialectology: dialectometry

Traditional dialectology — indeed, traditional philology — tends to be devoted to studying the distribution of individual linguistic phenomena, one feature at a time (e.g. unstressed periphrastic do in English dialects, /l/-vocalization in German dialects, and so on). Such "single-feature-based studies" (Nerbonne 2009: 176) are fine, of course, when it is the features themselves that are of interest. Single-feature studies are somewhat inadequate, however, when it comes to characterizing multidimensional objects such as dialects. Outside linguistics, this sort of inadequacy is well-known: taxonomists, for instance, typically categorize species not on the basis of a single morphological or genetic criterion, but on the basis of many. The problem with single-feature-based studies, then, is that feature selection is ultimately arbitrary (cf. Viereck 1985: 94), and that the next feature down the road may very well contradict the characterization suggested by the previous feature. Thus, there is no guarantee that different dialects will exhibit the same distributional behaviour in regard to different features, because isoglosses do not necessarily overlap. Also, individual features may have fairly specific quirks to them that are irrelevant to the big picture. This is why "[s]ingle-feature studies risk being overwhelmed by noise, i.e., missing data, exceptions, and conflicting tendencies" (Nerbonne 2009: 193).

The shortcomings of non-aggregational analysis have been known since at least the 1930s (see, for example, Bloomfield 1984 [1933]: chapter 19). Since the 1970s, computationally inclined dialectologists have addressed these worries by developing a methodology known as *dialectometry*, which aggregates information about many dialect features to uncover the "big" picture in synoptic analyses. The motto is that aggregation is called for whenever the analyst's attention is turned to the forest, not the trees. Aggregation mitigates the problem of feature-specific quirks, irrelevant statistical noise, and the problem of inherently subjective feature selection. Moreover, it provides a more robust linguistic signal. In this spirit, dialectometry is concerned with measuring, visualizing, and analysing aggregate dialect similarities or distances as a function of properties of geographic space; for seminal work, see Séguy (1971) (the paper that sparked the dialectometry enterprise); Goebl (2006), Bauer (2009), and Goebl (2010) (the "Salzburg School of Dialectometry"); and Nerbonne et al. (1999), Heeringa (2004), and Nerbonne (2006) (the "Groningen School of Dialectometry"). The goal in dialectometry is to identify "general, seemingly hidden structures from a larger amount of features" (Goebl & Schiltz 1997: 13). This means that dialectometry puts a strong emphasis on quantification, cartographic visualization, and exploratory data analysis to infer patterns from feature aggregates. Empirically, the bulk of the dialectometry literature draws on linguistic atlas material as its primary data source. For example, Goebl (1982) investigates joint variability in 696 linguistic features that are mapped in the *Sprach-und Sachatlas Italiens und der Südschweiz*; Nerbonne et al. (1999) analyse aggregate pronunciational dialect distances between 104 Dutch and North Belgian dialects on the basis of 100 word transcriptions provided in the *Reeks Nederlands(ch)e Dialectatlassen*; and Szmrecsanyi (2013) marries aggregational analysis techniques to the corpus-based study of dialect grammar and explores aggregate relationships between 34 traditional British English dialects on the basis of 57 grammatical features extracted from the *Freiburg Corpus of English Dialects* (see Szmrecsanyi 2008,

2011, and Szmrecsanyi & Wolk 2011 for partial summaries, and Wolk 2014 for an extension that integrates aggregational and probabilistic approaches in the study of dialect grammar).

5. Perceptual dialectology

Dialectology usually focuses on what dialect speakers say, as analysed by trained linguists. But in the 1980s, a new branch of dialectology emerged, *perceptual dialectology*, which studies folk perceptions of, and attitudes towards, dialect variation. The approach was pioneered by the American sociolinguist Dennis R. Preston, and has since been extended to dialect variability in Germany, Japan, Switzerland, the Netherlands, and elsewhere. A seminal study (Preston 1986) uses the following methodology:

The study of dialect distribution has generally focused on the performance of speakers rather than on their perception of speech variation. The exceptions in so-called attitude studies do not further our understanding of where ordinary speakers believe dialect boundaries exist. Hand-drawn maps from five areas (Hawaii, southeastern Michigan, southern Indiana, western New York, and New York City) are converted into generalized maps of local perceptions of dialect areas of the United States. The maps are compared with one another, with traditional maps of U.S. dialect areas, and with maps of cultural and regional zones of the United States. The maps are shown to be of value in calculating attitudinal factors and may be of considerable importance in determining the existence and scope of such notions as "speech community." (Preston 1986: 221)

Preston's approach has inspired much follow-up work (see e.g. the articles in Preston & Long 1999). Let us discuss two exemplary studies in this paradigm. Inoue (1996) reports an experiment to study the subjective dialect division in Great Britain. Seventy-seven students at several universities in Great Britain were asked, among other things, to draw lines on a blank map "according to the accents or dialects they perceived", based on their past personal experience. Stoeckle (2010) is another study in the perceptual dialectology paradigm, which is interested in the geographical scope of local dialects in southwest Germany from the point of view of the man in the street. The area of investigation is comprised of 37 villages and cities in the Alemannic speech area, in each of which six informants of different ages, sex, and professions are interviewed. The database for the analysis consists of so-called "mental maps", which are drawn by the informants themselves, as well as questionnaire-based evaluations made by the informants of their own dialects and the surrounding speech areas.

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