Part I

Fundamentals
1 Language Variation

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1.1 Introduction: Defining Language Variation

Language variation can be defined as “different ways of saying the same thing,” where “different ways” refers to differences in the form of language (sounds, words, sentences, ways of speaking) and “the same thing” refers to the intended meaning conveyed by those forms: talking about things or events in the world, marking distinctions required by the language’s grammar, conveying the speaker’s intention, or indicating something about the speaker’s social position or relationship to the listener. Let us start by distinguishing variation between languages (interlinguistic variation) from variation within languages (intralinguistic variation).

1.1.1 Interlinguistic Variation

Different languages say the same thing in different ways. The words ji (Chinese), frango (Portuguese), and kuku (Swahili) are different sequences of sounds that all refer to the same animal as the English word chicken. Since the relationship between form and meaning differs arbitrarily from language to language, and there is no way to figure out the meaning of a word based only on its sounds, learning a language involves making the connection between forms and the meanings conveyed by those forms.

Interlinguistic variation goes beyond the words that each language uses to refer to things. The human vocal apparatus is capable of producing many different sounds, but each language uses only a subset of these sounds for the purposes of speech and uses them in ways that differ from the way that other languages use them (phonology). The English sounds represented by the spelling th (as in thin or the) are not used in other languages, while sounds such as German ch (as in Bach) or the “click” sounds in languages such as Xhosa are not used in English. These differences make it difficult for some learners of English to pronounce th or for speakers of English to pronounce German ch or Xhosa clicks.

Languages differ from each other in the way that they put words together (morphology). English uses a number of word-formation strategies to indicate
grammatical distinctions and to create new words. Plural can be indicated by adding a suffix to the noun (*cat* ∼ *cat*-s) or by changing its stem vowel (*goose* ∼ *geese*). New words can be formed by adding a prefix to another word (*read* ∼ *re-read*) or by compounding two words into one (*black + board > blackboard*). Word-formation strategies vary quite a bit across languages: languages like Turkish and Finnish use many prefixes and suffixes to indicate grammatical distinctions, while languages like Thai and Chinese do not use word-formation strategies to indicate grammatical distinctions but use compounding extensively to form new words.

Languages differ in how they group words to form clauses and sentences (syntax). In English, subjects tend to come before verbs, which come before their objects (subject–verb–object). In Japanese, the verb comes after everything else (subject–object–verb), while in Gaelic the verb comes first (verb–subject–object). Morphology and syntax are interrelated: some languages indicate the roles of nouns in the sentence through their position, while others mark these roles on the nouns, which allows more freedom in the syntax.

Finally, languages differ from each other in the strategies used to indicate the speaker’s belief in, source of, or attitude toward what they are saying or to indicate elements of their relationship to the hearer (discourse and pragmatics). Japanese indicates levels of politeness through the choice of pronouns and marking on the verb, and some languages indicate how the speaker came to hear about what they are stating. In English these functions are usually not conveyed grammatically but through discourse strategies, such as indirectness (“Could you open the door?”) and across verbs in multiple clauses (“I heard that …”).

1.1.2 Intralinguistic Variation

Variation within languages is less apparent, largely because we learn to filter out a lot of that variation when we learn to speak a language. Speakers sometimes refer to differences between the way people speak their language as a matter of “dialect,” but from a linguistic perspective the distinction between dialect and language is not straightforward. Some languages are similar enough to each other to be mutually understandable, but cultural, social, or political attitudes can influence the extent to which their speakers think of them as different. Norwegian, Swedish, and Danish are so similar to each other that their speakers can understand each other, but they are considered to be languages rather than dialects because they are spoken in different countries. In contrast, the many types of “Chinese” spoken in China are very different from each other and not mutually understandable, but they are considered dialects of the same language because of their speakers’ shared history, culture, and political unity. Dialects differ from each other on a number of levels, just as languages do.
Focusing on a single dialect (or even a single speaker), we still find variation in form. The English plural suffix -s has different realizations: a voiceless sound [s] (cats), a voiced sound [z] (dogs), or a full syllable [iz] (bushes). The object of a verb with a particle sometimes occurs after the particle (he picked up the children) and sometimes before it (he picked them up). However, we do not normally think of these differences in form as variation because they can be predicted on the basis of the linguistic context: the plural alternation is triggered by the type of consonant that comes before the suffix, and the object’s position depends on whether it is a pronoun or a noun phrase. The goal of linguistic analysis is to correlate differences in form with differences in meaning or with elements of the linguistic context.

Nevertheless, in linguistic analysis there always remains a certain amount of variation that we are unable to predict, traditionally referred to as “free variation.” The use of the word free implies that the realization of form is completely random, due to forces outside of language and therefore not of interest to linguistics.

In the 1960s, William Labov and his associates and students began to develop an approach to linguistic analysis that saw variation as an inherent feature of language rather than something to be eliminated or ignored (Labov 1963, 1966). The goal of the variationist approach is to conduct linguistic analysis through correlating quantitative patterns of variation with elements of the linguistic and social context.

Central to the variationist approach is the linguistic variable, which embodies our definition of linguistic variation as “different ways of saying the same thing”: the “different ways” are the variant forms and “the same thing” is their common meaning or function. English speakers exhibit variation in the pronunciation of the consonant in the suffix -ing, alternating between a velar form [ıŋ] and an apical form [in] (singing ~ singin’). These forms are in “free variation,” as the same speaker can produce either variant under the same circumstances. Determining the circumstances under which a speaker is free to vary between forms is a crucial component of the variationist analysis, known as defining the variable context (or the envelope of variation). In the case of (ING), we must restrict the variable context to word-final unstressed -ing, as the variation is not observed outside of this context (that is, the word ring is never pronounced rin’). Defining the variable context determines how we go about looking for examples of the variable (occurrences, or tokens) to count.

1.2 Types of Linguistic Variables

Since variation occurs at all levels of the linguistic system, variables can exist at each of these levels. At the lexical level, different words can refer to the same thing (synonyms). The English words running shoes, runners,
and *sneakers* may all be used to refer to the same type of athletic footwear. Phonetic variables reflect different pronunciations of the same underlying sound. Consonants can be deleted or inserted or can change in their place or manner of articulation or their voicing, or they may vary in secondary articulation. A couple of well-studied consonantal phonetic variables in English are (t/d)-deletion, which involves the variable pronunciation of /t/ and /d/ at the end of words (*west* ∼ *wes’*, *sand* ∼ *san’*), and (ING), which involves the variable realization of word-final -*ing* with a velar [ŋ] or coronal [n] nasal. Phonetic variables define their variable context in terms of structural positions – (t/d)-deletion occurs word-finally in consonant clusters, and (ING) occurs only in unstressed word-final syllables. Variation in vowels involves alternations in height, frontness/backness, and rounding; realization as a monophthong or a diphthong; and devoicing. In Canadian English, the vowels /ɪ/, /ɛ/ and /æ/ are variably lowered and retracted. The variable context for vowels may be defined on the basis of their underlying sounds, as above, or may be defined through classes of words that act similarly and are identified by keywords (the *kit*, *dress*, and *trap* vowel classes). Consonant variables are normally considered to be categorical – each variant can be classified into a different category (deleted or not deleted, velar or coronal). Since vowel variants form a continuum, they may be classified impressionistically (lowered or not lowered) or the properties of their soundwave may be measured for identifying formant frequencies. Suprasegmental variables involve considerations of pitch (tone, intonation) or rhythm (prosody, stress). In some varieties of English a declaration may be uttered with a rising intonation, making it sound more like a question. As with vowels, classification of variants may be made impressionistically or acoustically.

Morphological variables concern the variable occurrence of forms that function to indicate grammatical differences. Normally these functions reflect inflectional properties such as number, gender, or case for nouns or tense, mood, aspect, or person–number agreement for verbs. For morphological variables the definition of the variable context is usually made on the basis of grammatical function – since the function itself may alternate between overt and unmarked forms, the grammatical function sometimes must be inferred from the wider discourse context. If a speaker alternates between saying “three cats” and “three cat” or “Yesterday she walked a mile” and “Yesterday she walk a mile,” we can infer that there is variation in the formal marking of plural or tense, respectively. Syntactic variables concern alternation in the position of constituents in the sentence or the presence or absence of grammatical words. The given example of verbs with particles demonstrates predictable variation with pronoun objects, but if the object is a noun phrase, the particle placement is variable: *he picked up the children* ∼ *he picked the children up*. English shows alternation in the occurrence of the complementizer that: *she knew that he was lying* ∼ *she knew
he was lying. Note that there is often no neat division between morphological and syntactic variation, and in fact some variables may cut across this division. In French, reference to future time alternates between inflection on the verb (*j’achèterai*, “I will buy”) and a multiword construction (*je vais acheter*, “I’m going to buy”).

Extending the study of linguistic variation into the realm of morphology and syntax brings us into considerations of meaning, which creates problems for defining the variable context. If linguistic variation is “different ways of saying the same thing,” can we interpret differences in morphology and syntax as referring to the same thing or are all such differences indicative of changes in meaning?

This question occupied the variationist approach in its early years (Lavandera 1977; D. Sankoff 1988), but recent research has relaxed the requirement of strict equivalence of meaning as a criterion for defining variables. Instead, variables are defined on the basis of their shared function. The different forms of the French future are often said to indicate subtle distinctions of meaning (such as “near future” vs. “far future”), but in practice these distinctions are not always evident. If we define the different forms as fulfilling the same (grammatical) function – referring to states or events after the time of speaking – we sidestep the need to determine whether in fact there are subtle differences of meaning.

The question of equivalence of meaning becomes even more controversial when we move into variation at the level of discourse or pragmatics, both because differences in form are here themselves normally taken to indicate differences in meaning and because the meaning of forms is not always clear or may be multilayered. People often comment on the prevalence of the word *like* as a discourse marker in English, but it is not clear exactly what its meaning is (or meanings are), where it can (and cannot) occur, and what (if anything) it varies with (D’Arcy 2017). Nevertheless, there are variables for which a discourse function can be isolated. One use of *like* that has accelerated in recent years in English is in reporting speech (she was like, “How are you?”), where it alternates with verbs of saying as well as the verb *go* (she went, “How are you?”). All of these forms have in common the discourse function of introducing speech made outside of the current speech event, which can then serve as the variable context (Buchstaller 2014).

### 1.3 Dimensions of Variation

The variationist approach is concerned not only with the simple fact of linguistic variation or with how frequently each of the variants occurs but also, and more importantly, how variants are distributed across contexts. Some contexts are language internal – for example, we might ask how frequently the deletion of a consonant occurs when the following sound is a consonant or when it is a vowel.
Examining the distribution of variants according to elements of the linguistic context (which simply represents a quantitative extension of linguistic analysis) can provide us with further evidence of how the language works.

Contexts that are external to language are just as important to the variationist approach. Some of these distributions may reflect underlying linguistic differences – groups of speakers may show differences because they speak different dialects or languages – but more often they demonstrate that the choice of variant has social meaning. Speakers of a language use linguistic variation to construct and express how they view themselves and their social world.

1.3.1 Region (Dialect)

Long before the beginning of the variationist approach, variants were noted to be distributed differently according to geographical region. Regional differences arise because people tend to talk like the people that they talk to: people who live near each other are more likely to interact, meaning that their speech will resemble each other’s more closely.

The systematic study of regional variation in language (dialectology) began in the middle of the nineteenth century, when researchers in France and Germany who were concerned about the loss of traditional dialects under pressure from language standardization began to carry out dialect surveys. Traveling to different parts of the country, they would ask inhabitants for the local words and pronunciations of common items, or they would send these questions by post to be answered by local literate officials such as schoolteachers. Recent dialect surveys have relied on advances in technology to ask questions over the telephone or by internet or social media, but the tool of the dialect questionnaire remains the same (Chambers and Trudgill 1989).

The goal of a dialect survey is to map the distribution of variants according to their geographical location. Dialect maps allow for graphic interpretation of regional distribution, revealing geographic concentrations of speakers who agree in their choice of variant. Where groups of speakers differ, a line (isogloss) can be drawn between geographical areas. The isoglosses for a number of variables often coincide, revealing dialect areas that are characterized by differences across a set of features (Kretzschmar 2017). For example, the traditional distinction between Low German and High German is made on the basis of a number of lexical and phonological variables whose isoglosses coincide.

Traditional dialect surveys are limited by providing a single response to each question. Proportions represent the number of speakers or locations within a region who agree on the choice of variant. As we have seen, individual speakers may vary in their pronunciation, in which case a single response would not capture that variation. A larger number of responses from each speaker or locale would more accurately reflect linguistic behavior. Recent
work in the study of regional variation has incorporated larger datasets that use extended recordings of speech rather than responses to questionnaires, as well as employing more sophisticated statistical and mapping techniques (dialectometry) (Szmrecsanyi 2013). The goal remains the same: to understand the geographic distribution of linguistic variation.

### 1.3.2 Style

As noted, individual speakers do not behave the same under all circumstances. Instead, they alter their way of speaking according to the social situation in which they find themselves (style). On a broad level, we can distinguish formal and informal contexts. In certain situations or topics, speech is expected to be more formal or informal. Discussions in a church or about religious topics call for more formal variants than do discussions in a pub or about what you did on the weekend. In addition to the setting or topic, the type of relationship that exists between speakers and their audience calls for different levels of formality. Speaking to a family member involves less formal variants than speaking to an outsider – although even within the family, speaking to a relative of an older generation may call for more formal speech than speaking to a relative of the same generation. Levels of formality may be asymmetric, with lower-status speakers required to use more formal variants with higher-status interlocutors. It is normal for employees to address their employer more formally than vice versa.

In some languages, these distinctions of style related to situation, topic, and status are conveyed grammatically. In Japanese, the choice of pronoun and verb marker reflects these considerations. In other languages, the choice of word depends on situation and status. In Javanese, which word you use for “eat” is determined by who you are talking to and what situation you are in. Even in English, the choice of word that we use or how indirect we are in making a request or command depends on the situation, the topic, or the audience. This type of variation, in which there is a clear-cut and qualitative relationship between the variants and elements of the social situation, we can refer to as differences of register. In other words, given our knowledge of the social context, we can make a pretty firm prediction about which variant will occur.

However, other types of variation may show differences of a quantitative nature. I note that my use of -in’ is higher when I am talking to my friends than when I am making a presentation at work. Over the years, studies of variables that are sensitive to style show that speakers exhibit different rates of variants depending on the context (style shifting).

The observed effects of style shifting have been attributed to a number of different explanations. In his work in New York City in the 1960s, Labov (1966) argued that speakers shift according to how much attention they pay to how
they are speaking (rather than what they are saying). Under this view, asking the speaker to engage in tasks that focus more and more attention on language (such as reciting a list of words or pairs of words that differ minimally) rather than content should elicit increasingly formal speech. Conversely, more informal or casual speech is elicited by focusing the speaker’s attention on content. In relating narratives of personal experience (such as “danger of death” narratives, in which speakers are asked to relate a time when they thought that they were about to die), speakers tend to get so caught up in reliving the experience that they focus less on their speech. Most research since then has either followed or challenged Labov’s techniques or explanation.

The effects noted in Labov’s study were acknowledged by Allan Bell (1984), but he identified a common theme to the different contexts in which speaker behavior changed: the characteristics of the person or people being spoken to. His audience design model argues that variants that are perceived as being formal or informal derived that interpretation from their association with the social characteristics of the people who use them. In other words, speakers change the way they speak to adapt to the perceived characteristics of their audience. Bell provided an overview of different studies showing how differences in the composition of the audience could be related to greater or lesser degrees of style shifting.

These views of style characterize speakers as reacting or responding to elements of the social context (situation, topic, audience). In contrast, more recent work led by Penelope Eckert (2000) and others has offered an alternative view in which speakers take an active role in defining the sociolinguistic situation. In contrast to responsive or reactive theories of style shifting, agentive approaches view speakers as acting together to define the sociolinguistic situation through their use of linguistic variants. Under this view, linguistic variants have potential rather than fixed meaning, and the interpretation of their meaning depends on the context in which they are used in conversational interaction. Rather than passively relating social meaning to variants, speakers and their interlocutors co-construct the meaning of variants.

1.3.3 Social Group (Sociolect)

Since speakers make use of the fact of linguistic variation to construct, express, and interpret social meaning through language, an important task of the variationist approach is to determine which divisions are socially meaningful, whether and how those divisions are expressed linguistically. While the most straightforward approach would be to ask people directly, language speakers are not always consciously aware of their own behavior. Paradoxically, people can exhibit quite complex sociolinguistic behavior without being able to discuss
this behavior! For this reason, the variationist approach relies primarily on observations of linguistic behavior in natural contexts.

Within the variationist approach, there is often a tension between “macro-level” and “micro-level” (or local) definitions of groups. Macro-level definitions involve grouping speakers in ways that are measurable and objective and can be replicated and compared across studies (etic). Categories such as occupation, amount of income, level of education, biological sex, and racial-physical characteristics are relatively easy to determine and measure and can be compared across studies. However, these categories, while objectively useful, may not be meaningful to the community or the individuals being studied and may not be conveyed linguistically. An alternative approach, more commonly adopted in recent years, is to seek explanations for sociolinguistic divisions in micro-level or local categories (emic). Local categories, being more subjective, are less easy to code and may require supplementing observations of linguistic behavior with long-term ethnographic analysis or social-psychological questionnaires or experiments, but they often provide more socially motivated explanations for the observed patterns of variation than do the macro-level categories (Eckert 2000; Hoffman & Walker 2010).

1.3.3.1 Social Class – Social Network – Community of Practice In New York in the 1960s, Labov noticed a correlation between style shifting and the speaker’s socioeconomic status: speakers with lower status tend to use more informal variants and speakers of higher status use more formal variants (Labov 1966). This finding reflects a common observation across different communities that a person’s social status is correlated with his or her linguistic behavior.

Distinctions in socioeconomic status were operationalized by Labov as social class, defined on the basis of three (etic) measurements: occupation, income, and education. Together these measurements placed people on a scale which could then be divided into sectors such as “middle class” and “upper working class.” The correlation between socioeconomic status and linguistic behavior has been established across a number of studies conducted in English-speaking communities, but the relative effect of each of the components of the socioeconomic scale differs across communities. Labov traced the differences in social-class behavior to two competing pressures: pressure from above (we try to sound like those of higher social classes when considerations of power or prestige are invoked) and pressure from below (we try to sound like those of lower social classes when we want to display solidarity).

Social class has not figured as prominently in subsequent variationist research, which has taken a couple of different directions in accounting for sociolinguistic divisions on the basis of power and status. In a study of Montreal