Variationist perspectives

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Historical discussion

After Corder (1967) proposed that second-language learners have a universal “built-in syllabus” that guides them in the systematic development of their own linguistic system, or “transitional competence,” Selinker (1972) posited that this linguistic system (which he called “interlanguage”) was variable, in that learner utterances could be expected to vary dramatically in form depending on whether the learner was trying to communicate meaning or was focused on form (as when responding to classroom drills and exercises or providing grammaticality judgments). Thus, variationist SLA began in 1972. Only three years later, Dickerson (1975), drawing upon the models of variation developed by Labov (1966, 1972a, 1972b), Wolfram (1969), and others for the study of variation in first languages, particularly in non-standard dialects, published the first variationist study of interlanguage. Her results showed systematic shifts in the accuracy of Japanese learners’ production of English z depending on the degree of attention to form required by the task (e.g., reading a passage vs. reading a word list). Soon after, Beebe (1977, 1980) demonstrated the dramatic impact of the interlocutor on Thai English L2 learners’ variable production of phonological forms. Early studies (Adamson, 1980; Ellis, 1985, 1987) explored the impact of social factors such as interlocutor and task on interlanguage variation and are summarized in Tarone (1988). Many early longitudinal case studies focusing on the spontaneous production of learner language in the daily life of individual learners, such as Schumann (1978) and Huebner (1983), also gathered data varying across a wide range of social situations.

However, in the 1980s, Krashen’s (1981, 1982) Monitor Model portrayed a learner’s attention to linguistic form as categorical, and not variably related to nuances of social context. In the mid-80s SLA researchers (most of whom had no background or interest in sociolinguistics) focused on learner cognition, using research designs based in experimental psychology. Such studies (e.g., Liceras, 1985; Zobl, 1985) ignored or even denied the relevance of social context to interlanguage development; they could be carried out in the convenience of on-campus labs and classrooms, assuming the irrelevance of social context. Selinker and Douglas (1985) urged that social context should be taken into account in interlanguage theory, but without much success. Generativists such as Gregg (1990) argued that variation was just a matter of performance that could be safely ignored by SLA researchers, whose focus of study should be competence, not performance. Perhaps the most explicit claim about the irrelevance of social context to learner language development in SLA is this one:

Remove a learner from the social setting, and the L2 grammar does not change or disappear. Change the social setting altogether, e.g., from street to classroom, or from a foreign to a
second language environment, and, as far as we know, the way the learner acquires does not change much either, as suggested, e.g., by comparisons of error types, developmental sequences, processing constraints, and other aspects of the acquisition process in and out of classrooms .... (Long, 1998, p. 93)

This position, Tarone (2000a) argues, provides a useful set of hypotheses to be subjected to empirical verification by variationist SLA research carried out in a wide range of social contexts. Such research, she argues, has shown that cognition in SLA is affected by the social context (cf., Liu, 2000; Tarone, 2010). The SLA database is currently far too narrowly restricted in terms of the social status of learners studied (Bigelow and Tarone, 2004); for example, the vast majority of those who learn L2s worldwide are illiterate, yet almost no SLA research has been carried out in such populations or the social settings in which they live. Do we really intend to imply that illiterate L2 learners do not matter? A variationist approach to SLA calls for researchers to expand the study of social circumstances and learner types beyond school and academic settings and to study SLA as it occurs across the widest possible range of social settings and learner types.

Core issues

We will now examine some central theoretical assumptions of variationist L2 research.

An L2 Speaker produces a range of styles, depending on social context

This is one of the central assumptions of sociolinguistics, articulated by Labov (1972b): there are no single-style speakers. Tarone (1972) posited that there are no single-style L2 learners either. Every speaker has a range of styles that are appropriate for use in different social situations. According to Labov, these speech styles could be ranged on a continuum from informal (vernacular) to formal styles, where the speaker’s attention to speech might cause a shift to more formal styles (“style shifting”). There is little doubt today that such variation is inherent in interlanguage, particularly at the level of phonology (Major, 2001). That said, it remains to be learned what a second language learner’s set of interlanguage styles is, especially in the beginning stages of acquisition, and how different styles develop.

The most systematic style produced by the L2 Speaker is the vernacular

Although variationist methods have been successfully used in a substantial number of L2 studies, we cannot always take the methods developed in one discipline and apply them to another. Perhaps the most obvious problem concerns accessing the vernacular, or speakers’ more unmonitored styles. Even when we design tasks to elicit different levels of L2 learner attention to speech, that is to elicit different speech styles, the results are often much more complex than usually found in L1 studies, which show a clear progression from casual speech to reading word lists. For example, Ellis (1985, 1987, 1989) has argued that free variation may be a characteristic of some interlanguage systems. In a study of syntactic and morphological variation in the interlanguage of L1 Arabic and L1 Japanese learners of English L2, Tarone (1985) found that their accuracy in the use of third-person singular verbal -s was greater in a multiple choice grammar test (where the entire focus was on form) than in a narrative task, which presumably required less
attention to form. However, at the same time, and contrary to what one might expect, the same learners’ accuracy in article use was least accurate on the multiple choice grammar task and most accurate on the oral narrative. In other words, in moving from one task to the next, the learners’ accuracy in producing articles increased at the same time their third-person singular -s accuracy decreased.

The superordinate norm, or target, of interlanguage development can be idiosyncratic

Our interpretation of second-language speakers’ responses is made difficult by the fact that we do not always know what their perception of the target language (TL) norm is. With native-language speakers, we interpret linguistic forms to mean what they seem to mean. In learner speech, however, a speaker’s failure to use forms that are obligatory in the TL can easily lead to confusion. For example, in a sociolinguistic interview with an intermediate speaker of English, Bayley (1991) asked about the participant’s family. The speaker offered a long account about his grandfather, a government official in China. All of the verbs in the account were unmarked for tense. Bayley then asked: “How old is your grandfather?” The response: “Oh, he die in 1969.” It was fortunate that the interviewer thought to ask about the grandfather’s age. Otherwise, the unmarked past-tense forms would simply have been coded as unmarked present-tense forms, with third-person singular -s missing.

The identity of the researcher has an impact on the speech of second-language learners

A problem in adapting sociolinguistic constructs to SLA research concerns the identity of the interviewer. Like many variationists who work with native language communities, some SLA scholars have elected to have interviews conducted by ethnically congruent fieldworkers. Beebe (1980) showed that Thai learners of English used more Thai variants when interviewed by ethnic Thais than by ethnic Chinese. In a study of English past-tense marking, Wolfram and Hatfield (1984) controlled this variable by hiring only ethnic Vietnamese to interview Vietnamese English L2 speakers in the Washington, D.C. area. However, such a decision presents problems because it takes away the need to use the TL rather than the interviewer’s and interviewee’s shared L1, which would be more natural (and easier) (see, e.g., Broner, 2001; Tarone and Swain, 1995).

It is unclear what categories define the speech community (and identity) of the L2 learner

In traditional sociolinguistics, researchers often aggregate speakers in a community according to social categories. Sociolinguists generally consider it axiomatic that constraints on variation have the same effect on all members of a speech community, although individuals may vary greatly in their use of a particular variant (Guy, 1991). For example, New Yorkers of all social classes are more likely to pronounce postvocalic /r/ in more careful than in more casual speech (Labov, 1966). Language change within a speech community may occur either “from above” (that is, begin with the most formal, superordinate style and over time spread downward into less formal styles) or “from below” (begin in an informal style and spread upward into more formal styles). Hence, if we are interested in the direction of language change within a community or in patterns of stable variation that distinguish one community from another, we are justified in aggregating speakers who belong to similar social categories (but see Johnstone, 1996).
However, when we attempt to identify the relevant speech communities of L2 speakers, the basis for aggregating speakers is much less firm. Preston (1989, p. 257) has proposed that the learners in an L2 classroom may constitute a speech community, and argued that both forces, of “change from above” and “change from below,” apply in such communities. Tarone (2009, pp. 46–49) agrees, but more studies are needed to document the directionality of language change. Learner varieties change rapidly as acquisition proceeds and the same constraints on variability may not be operative at all stages of acquisition. In addition, the type of language that learners acquire is influenced by the context in which learning occurs, by opportunities for interactions with target language speakers, and by the varieties with which the learner comes into contact (Nagy et al., 2003). Moreover, although there are numerous similarities in the paths L2 acquirers take toward the target language, there is also considerable evidence that L2 acquirers pursue individually divergent learning strategies that may lead to differences in what is acquired (Bialystok, 1990). L2 learner identity and group orientation may be defined in terms of categories not traditionally used in sociolinguistics; for example, L2 learners entering academic disciplines may define themselves more in terms of membership in academic discourse communities than membership in traditional speech communities (Swales, 1990, pp. 23–27). Given current knowledge, we suggest that researchers need to examine individual patterns at various stages of acquisition rather than simply assume that learners, even learners from the same language background, will construct their identities according to traditional sociolinguistic categories, or that language change in learner communities will be analogous to that in the speech community in the Labovian sense.

Data and common elicitation measures

Data

Since its inception as a subfield of linguistics in the 1960s with Labov’s work on Martha’s Vineyard and in New York City (1963, 1966, 1972a) and comparable studies in Detroit by Shuy et al. (1968) and Wolfram (1969), sociolinguistics has relied on natural speech data collected in the community. The centrality of this sort of data is based on the axiom described above that a speaker’s vernacular, or the language variety learned first and spoken in the community, is more systematic than other more formal styles that may be susceptible to phenomena such as hyper-correction (e.g., the use of “I” in object position). According to Labov (1972b) this is the “observer’s paradox”: our goal is to understand how speakers, including L2 speakers (Tarone, 1972), use informal language when they are not being observed; however, to obtain the data that we need, we must observe them. Although modern compact recording equipment has mitigated the paradox somewhat, making possible, for example, the nuanced identification of gender differences in the production of such informal L2 variants as -in’ for -ing (Adamson and Regan, 1991), it has not done away with the problem.

Methodologies of data collection

Sociolinguists commonly conduct cross-sectional studies of a speech community to understand language change. Variationist SLA research also often uses this model, collecting data at a single time by sociolinguistic interviews or ethnographic observation. Typically, such studies include learners at different stages of acquisition.

The sociolinguistic interview. One solution to the observer’s paradox is the sociolinguistic interview (Labov, 1972a, 1984), which contains modules dealing with topics designed to put the researcher in a “one-down” or less powerful position in relation to the speaker; such topics include
childhood games, dating patterns, marriage and family, dreams, and (famously) danger of death (Have you ever been in a situation where you were in serious danger of getting killed?). Questions about these topics are brief and phrased in everyday speech. To elicit a wider range of speech styles and comparable data across speakers, sociolinguistic interviews may also include more formal tasks such as reading passages, word lists, and lists of minimal pairs; typically these are reserved for the end of the interview. The use of this same range of formal tasks to elicit L2 learner language has produced the same patterns of style shifting (Dickerson, 1975; Gatbonton, 1978).

The issue of researcher identity and community membership can affect outcomes in sociolinguistic interviews with both first and second language speakers: speakers use different speech styles with outsiders than with those they perceive to be community members. Rickford and McNair-Knox (1994), for example, report that a young female African American Vernacular English (AAVE) speaker spoke in a much less vernacular style with a white interviewer than with an African American interviewer from the community. As noted above, Beebe (1980) showed the same effect with Thai learners of English. However, sociolinguists who are not members of the community being studied may sometimes be able to establish a kind of insider-outsider role. Cukor-Avila and Bailey (2001), white linguists who have worked for many years in a rural African American community in Texas, argue that the effects of an interviewer’s race can be minimized in the right circumstances: “familiarity with the informant and the use of peer groups … can substantially ameliorate any effects that race of the fieldworker might have” (p. 267). The L2 learner vernacular use documented by Rampton (1995) suggests that this can also be the case in some SLA variationist research.

Ethnographic observation and the problem of identity. A number of early studies of sociolinguistic variation, including Labov’s (1963) classic study of Martha’s Vineyard, incorporated ethnographic observation and sought explanations for observed patterns of variation in the social categories that were meaningful to the community under observation. That is, they employed methods designed to assess speakers’ views of meaningful social distinctions and interpretations of interactions. However, in the ensuing years, numerous variationist studies have relied primarily on quantitative analysis of linguistic variables and based their social analysis on externally prescribed social categories such as gender, social class defined in terms of indices of occupation and income, and ethnicity. Use of such externally derived categories provides us with an overall picture of changes occurring across the broad spectrum of a community, but it also has serious limitations. For example, large-scale studies that focus on pre-existing social and regional categories tend to view identities as static: constructed as membership in a particular class, with a particular regional identity, male or female, or a native or non-native speaker of a dominant language. However, identities are multifaceted and cannot be reduced to such predefined social categories; for example, gender is obviously distinct from biological sex. Moreover, as Bucholtz (1999) observed, by concentrating on core members of a group, traditional sociolinguistic studies tend to ignore marginal members. This dynamic becomes problematic when we deal with more fine-grained, individual-level nuances of language use and change, and particularly problematic in second-language acquisition research focused on immigrants. This is both because such speakers are often marginalized and because they may establish identities and social categories that do not accord with predefined categories in the host (TL) community (as in Bigelow, 2009 and Rampton, 1995). For example, Bigelow documents the hybrid identities being created by Somali adolescent immigrants in Minnesota and the creative mix of Somali and English language forms they produce. More such SLA research is needed.

To overcome some of the limitations of variationist approaches that emphasized recruiting individuals to represent predefined social categories, researchers have developed two main methods. The first, pioneered by Milroy (1987) in a study of Belfast, Northern Ireland, makes...
use of social networks. In her data collection, Milroy adopted an “emic” perspective and attempted to understand the social patterns of the community from participants’ viewpoints, introducing herself to potential study participants as a “friend of a friend.” Initial contacts led to other contacts with members of the participants’ social networks until she had recruited a sufficient number of participants who met the study criteria. Crucially, “the unit of study was the pre-existing social group, rather than a series of isolated individuals as representatives of particular social categories” (Milroy, 2002, p. 553). Milroy’s focus on pre-existing social groups opens up the possibility that such groups are organized using non-traditional categories that are meaningful to the members, and so must be used in understanding the group’s language use.

The second approach is the community of practice (CofP), which, like the social network approach, ideally combines ethnographic observation and rigorous quantitative and linguistic analysis. Eckert’s (2000) study of Detroit-area high school students is perhaps the best-known example. Based on extensive observations in the school, Eckert delineated a range of social practices engaged in by the two main identity categories identified by the students themselves (categories that did not correlate strictly with traditional, externally defined, social class categories): the “jocks,” youth whose social lives centered around the school, and the “burnouts,” youths whose social lives centered on activities outside the school. The students differed not only in pronunciation patterns such as their degree of participation in the Northern Cities Shift (with the burnouts being more advanced), but also in dress styles, places where members congregated, and whether they smoked. Other studies have examined communities of practice in a wide variety of settings. Bucholtz (1999) reports on an internally defined category of “nerd girls” in a northern California high school, who were distinguished not only by their language choices (precise diction, avoidance of slang, verbal play), but also by dress, taste in music, and academic orientation. Mendoza-Denton (2008) and Zhang (2005) employ the CofP approach to characterize Latina gang girls and Chinese yuppies respectively, and Haneda (1997) examines the CofP for SLA in a university Japanese foreign language setting.

Longitudinal research. Cross-sectional studies of speakers of different generations have served the field of sociolinguistics well. In fact, a number of scholars have returned to their original research sites and resurveyed the communities; for example, Cedergren (1988) found that her earlier study of Panamanians of different generations provided a generally accurate view of the direction of language change. However, since individuals acquiring second languages vary in their acquisitional trajectories and the same factors can affect learners at different levels of acquisition differently (Preston and Bayley, 2009), it is clear that variationist SLA research requires more longitudinal studies if we are to understand how patterns of variability change as acquisition proceeds.

Fortunately, a number of recent variationist SLA studies have been longitudinal in design. These include Liu’s study of a Chinese immigrant to Australia (Liu, 1991, 2000; Tarone and Liu, 1995), Regan’s (1996) study of variable *ne* deletion by Irish students before and after a year in France, Lybeck’s (2002) study of the acquisition of Norwegian pronunciation by American sojourners in Norway, and Hansen’s (2006) study of the acquisition of English syllable structure by a Vietnamese family in Arizona. We will use Liu (2000), Lybeck (2002) and Hansen (2006) to illustrate some of the advantages to be gained by longitudinal studies of L2 variation.

Liu (2000) compares the English language development of “Bob,” a five-year-old Chinese immigrant to Australia, in three different situations over a period of two years: interactions with his teacher in class, with peers in classroom deskwork, and at home in play sessions with a family friend. With his teacher, Bob does not initiate turns and he produces only simple sentences or sentence fragments. However, with his peers and the family friend, he initiates more turns, produces more complex sentences, and assertively negotiates meaning. As Liu tracks Bob’s acquisition of different stages of English questions across time and social context, he shows that
almost every new stage is first produced with the family friend at home, then with his friends in
desk work, and last with his teacher. Thus, the rate of acquisition of L2 is fastest in the at-home
setting. Indeed, Liu (2000) argues that if Bob’s only social setting for English use had been in
interactions with his teacher, his progress in acquiring English L2 would have been much slower.
Bob’s pattern of language change is “change from below”: development begins in the informal
style and spreads over time to the formal style. Crucially, social setting also impacts Bob’s order of
acquisition of English questions. (According to Pienemann and Johnston, 1987, question stages are
universal; they must always be acquired in numerical order, 1–5.) But for Bob, Stage 4 and 5
questions emerge at home before Stage 3 questions—and then when Stage 3 finally appears weeks
later, it is not at home, but in deskwork with peers. This fact could only have been discovered by a
variationist longitudinal case study of this design.

Lybeck (2002) tested Schumann’s (1978) acculturation model, operationalized through social
network theory (Milroy, 1987), to examine the extent to which acculturation patterns were
 correlated with success in the acquisition of pronunciation features by nine American women who
had lived in Norway between one and three years. Participants were examined twice, once at the
beginning of the study and once six months later, with a focus on two features, Norwegian r,
pronounced as an alveolar trill or tap in native speech, and production of syllable length distinc-
tions. As expected, speakers who were more integrated into Norwegian social networks increased
in accuracy over the six months while those who were not integrated into native speaker networks
showed little or no change. One participant’s accuracy even decreased over time, including a
decrease of 24.6 percent in her use of native-like r (Lybeck, 2002, p. 182) during a period when
Even though Lybeck’s study only spanned six months, she was able to demonstrate phonological
change over time. Importantly, her longitudinal study, like Liu’s, showed that change is not
necessarily universally predictable and unidirectional, moving inexorably closer to target language
norms; rather, change may involve movement away from target language norms.3

Hansen’s (2006) study of the acquisition of syllable onsets and codas by a Vietnamese
immigrant couple is among the few recent SLA studies that focus on working-class immigrants.
The participants, Anh Nguyen, age 41, and her husband Nhi Nguyen, age 46, had been in the
United States for less than a year when the study began. Although they had been teachers in
Vietnam and members of their family who had immigrated earlier had achieved considerable
success, their occupations in the U.S. conferred little status and limited income. Mrs. Nguyen
worked as a nail technician and Mr. Nguyen as an order-filler for a factory. Hansen (2006)
interviewed the Nguyens 28 times over a ten-month period, resulting in 42 hours of recording.
Her detailed analysis of the Nguyens’ phonological development is based on recordings of three
sessions, one at the beginning of the data collection period, another from the middle, and a third at
the end. Hansen’s VARBRUL analysis shows the trajectory of acquisition, with fewer transfer effects
over time, as well as the effect of social barriers.

Lybeck’s (2002) and Hansen’s (2006) studies provide valuable data on the acquisition of L2
phonology. As with any small-scale studies, it is difficult to generalize from their conclusions.
While Hansen’s working-class participants may be representative of a large number of adult
immigrants, particularly those from Southeast Asia, it is not clear whether the processes Hansen
identified would apply to Lybeck’s (2002) middle-class participants. While Lybeck illustrates the
effects of social networks on the acquisition of Norwegian phonological features, it is unclear
whether similar findings would be found in less privileged immigrant communities such as the
substantial Norwegian Filipino community examined in Lanza and Svendsen (2007). More
longitudinal studies of SLA are needed to probe questions such as these, and to study further
the way social factors influence the acquisition of L2 forms variably over time.
Methodology of data analysis

The main goal of variationist fieldwork is to collect a sufficient sample of the language variety being used by the community of interest, where “community” may be defined in a variety of ways described above. Normally this involves collecting many hours of natural speech, usually in sociolinguistic interviews but sometimes in ethnographic or other types of observations as well.

As we have shown in our discussion of the longitudinal studies summarized above, the process of data analysis involves establishing the linguistic or social categories that encourage or discourage the speaker’s use of different variants of a relevant linguistic variable. For example, one variable in Lybeck’s study was \( r \), which had two variants: native-like Norwegian \( r \) and American \( r \); the study identified linguistic and social contexts that favored either the Norwegian or the American variant. Such a process involves a detailed quantitative analysis: once the relevant linguistic variable has been identified, the researcher extracts all the relevant tokens of that variable in all relevant environments, i.e., in all linguistic or social contexts that may influence a speaker’s choice of one or another variant. And, since variation is normally influenced not by one but by many contextual factors, any quantitative analysis of variation requires a very large number of tokens. Labov (1989, p. 90), for example, summarized the influences on \( t/d \) deletion (e.g., \( west \rightarrow wes’ \)) across all varieties of English, where each variable listed below has been demonstrated to encourage greater deletion:

(a) syllable stress (unstressed > stressed\(^4\))
(b) consonant cluster length (\( CCC > CC \))
(c) the phonetic features of the preceding consonant, yielding the segmental order /s/ > stops > nasals > other fricatives > liquids
(d) the grammatical status of the final \( /-t,d/ \), with the order: part of \( n’t \) morpheme > part of stem > derivational suffix > past tense or past participial suffix
(e) the phonetic features of the following segment, yielding the order: obstruents > liquids > glides > vowels > pauses
(f) agreement in voicing of the segments preceding and following the \( /-t,d/ \) (homovoiced > heterovoiced).

Several of these influences on \( t/d \) deletion overlap in natural speech; for example, a three-consonant cluster always occurs in a syllable that is either stressed or unstressed. A moment’s reflection should suffice to indicate that not all combinations of influencing factors occur equally in natural speech. For example, monomorphemic \(-t/d\) clusters occur much more frequently than past tense \(-t/d\) clusters. Furthermore, some combinations of factors are impossible. However, even if we exclude such categories, we are still left with a very large number of possible combinations. In the case of \(-t/d\) deletion, even if we eliminate \( n’t \) clusters, we are left with 600 possible cells in a spread sheet tabulating possible combinations, and we have yet to consider any possible social factors. If we add gender, three age groups, and two social classes, the number of possible cells increases to 7,200.

Given the number of possible cell combinations and the rarity of some combinations, conventional statistical methods that rely on balanced distribution derived from controlled experiments are unsuitable for the informal speech data gathered in sociolinguistic interviews. For many years, sociolinguists have relied on VARBRUL, a specialized application of logistic regression (Sankoff et al., 2005).\(^5\) As Young and Bayley (1996) note, “the programs known as VARBRUL have been used most extensively [in sociolinguistics] because they have been deliberately designed to handle the kind of data obtained in studies of variation. They also provide
heuristic tools that allow the investigator to modify his or her hypotheses and reanalyze the data easily” (p. 256).

A substantial number of variationist studies of the acquisition of many L2s have used VARBRUL. These include, to name just a few, Young’s (1991) work on the acquisition of English plural marking by Chinese native speakers, Bayley’s (1994, 1996) studies of the acquisition of English past-tense morphology and variable consonant cluster reduction by native speakers of Chinese, and numerous studies of *ne* deletion by learners of Canadian and continental French (e.g., Regan, 1996, 2004; Rehner and Mougeon, 1999; Sax, 1999). Other work includes Jia and Bayley’s (2008) study of the acquisition of aspectual marking by Chinese heritage language learners and Rau and colleagues’ (2009) study of Chinese learners’ acquisition of the English interdental fricative. Overall, these studies have provided a valuable perspective on a number of issues in SLA. For example, saliency seems to have a similar effect on tense marking in both L2 English and L2 Hungarian (Bayley and Langman, 2004), consistent with the hypothesis that noticing facilitates the learning of L2 forms (Schmidt, 2001). In addition, in both L2 Chinese and L2 French, speakers tend to use vernacular forms less frequently than native speakers—and follow classroom norms more closely than is typical of native speakers (Li, 2010; Mougeon et al., 2004, 2010). Moreover, L2 speakers’ social networks play an important role in the acquisition and use of variable target language features (Liu, 1991, 2000; Lybeck, 2002; Nagy et al., 2003; Tarone and Liu, 1995). Learners acquire L2s at different rates across different social contexts, and social context may even alter developmental sequences in SLA, as in Liu’s (1991, 2000) longitudinal study of English L2 question acquisition. Finally, quantitative variationist studies of SLA have shown convincingly, using VARBRUL and other statistical instruments, that learner varieties, like native languages, are likely to be systematic and that the examination of learners’ variable departures from interlanguage norms can tell us a good deal about order of acquisition, the difficulty of various forms, and the impact of linguistic and social factors on cognitive processes of SLA over time.

Learner language may be studied in context using interactionist, sociocultural, and discourse approaches to SLA; such approaches document ways in which interlocutors may influence L2 input and output. However, the variationist approach to SLA is unique in its ability to offer powerful tools for the quantitative analysis of learner language in either cross-sectional or longitudinal studies, statistical tools that are capable of establishing the intricate and interacting relationships among a wide range of linguistic and social variables, many of which may not have been predetermined by the researcher, but all of which are shown to come together in patterned ways to influence development in a learners’ production of specific linguistic forms.

**Applications**

Variationist studies of SLA raise a number of issues for instruction and assessment. These issues differ, however, depending on whether the focus is variability in the use of obligatory target language forms or the ability to style shift. We will consider each of these areas in turn.

**Interlanguage variation, instruction, and assessment of obligatory forms**

As illustrated in the previous sections, studies of interlanguage variation have amply demonstrated that linguistic and social context affects variable learner use and acquisition of forms that are obligatory in the target language. The degree of difference between present- and past-tense forms
constrains past-tense marking (Bayley, 1994; Wolfram and Hatfield, 1984); past-tense marking in a number of interlanguages is constrained by lexical aspect (e.g., Ayoun and Salaberry, 2005, 2008; Bardovi-Harlig, 2000; Collins, 2002); redundancy appears to favor use of obligatory target language morphemes, as Young (1991) showed in his study of English plural marking by Chinese adult learners. And, finally, longitudinal studies that take social context into account show how social factors influence the acquisition of TL forms, both syntactic (Liu, 2000; Tarone and Liu, 1995) and phonological (Hansen, 2006; Lybeck, 2002). If learner language may change “from below” (beginning with learner vernaculars) as well as “from above” (beginning with formal instruction), then there are clear implications for classroom pedagogy. For example, it appears that not all learner language change begins with a focus on form, in the learner’s most formal style, as predicted by sociocultural or interactionist theory. Rather some learner language changes may begin in the vernacular style, as the learner focuses on meaning in more relaxed settings, possibly through language play (Tarone, 2000b), and then spread to more formal styles. Classroom instruction should be set up to encourage both types of language change (for suggestions, see Tarone, 2000b).

Variationist studies also have implications for language assessment. First, learner accuracy in a testing situation changes considerably depending whether the question encodes general content or field-specific content (Smith, 1989). Second, different types of tasks can promote accuracy in the use of some forms while inhibiting accuracy in the use of other forms, as shown in the example from Tarone (1985), where a narrative task favored accuracy in English definite article use, but not in third-person singular -s, while a fill-in-the-blanks test had the opposite effect. Third, the interlocutor can have an important effect on second language use and acquisition (Broner, 2000; Tarone and Liu, 1995). Fourth, most tests of language proficiency are based on the standard language. However, we have considerable evidence that the standard language is not the only—or even the main—target for many language learners. Goldstein (1987), for example, shows that the use of AAVE features by New York Puerto Ricans is influenced by speakers’ degree of contact with African Americans and by affective factors. Thus, in interpreting learner performance on assessments, we might ask, for example, whether the absence of third-person singular -s, is evidence of a speaker’s failure to acquire a form that is obligatory in the standard language or evidence of the speaker’s success in acquiring a form in the English dialect that provides the bulk of the input.

**Instruction and stylistic variation**

Acquiring full proficiency in a language entails not only acquiring a native–like grammar, but also acquiring native speaker patterns of variation, including the ability to style shift in moving from formal to informal social situations, as, from the classroom to a range of social contexts outside the classroom. It is common for students to master new elements of the L2 in all classroom activities, but not be able use those same elements when they walk out the door of the classroom and try to use them in other social contexts. A fully proficient L2 speaker will be able to use the language when focused on meaning and not just when focused on form, be familiar with the use of a range of grammar and discourse markers, and be able to express emotions appropriately in a wide range of social contexts. However, as Tarone and Swain (1995) note, language classrooms are necessarily relatively formal environments where only certain forms of discourse are considered appropriate, and where a premium is usually placed on grammatical accuracy rather than communicative appropriateness. Indeed, this is a perennial problem for language teachers who hope to provide their students with the ability to actually use their L2 to communicate outside the classroom. Language classrooms naturally elicit formal styles of speech and encourage attention
to formal accuracy; it is the purpose of schools and universities to foster the development of academic, formal styles of speech, and it is a primary purpose of classroom language teachers to offer accurate models of those styles, and, when students speak, to provide consistent corrective feedback on form. For this reason, students who learn L2s only in classrooms tend to learn to produce only academic and formal styles of those L2s (usually carefully-monitored), and usually find themselves at a loss when they need to use L2 in social situations outside the classroom where vernacular and informal L2 registers are more appropriate. For example, Dewaele (2005) documents the difficulties he experienced as a youthful speaker of L2 Spanish who was unable to move beyond the classroom register he had learned in school.

University language and K-12 language immersion teachers have struggled for decades to find ways to provide their students, proficient only in formal registers of the L2, with exposure to and practice in the less formal L2 registers. The importance of this exposure can hardly be over-emphasized. In just one example, Tarone and Swain (1995) found that pre-adolescent French immersion students who lacked a vernacular register of French appropriate for peer-peer interaction, fell back on their native language, English, to talk among themselves and ultimately began using English more and more even in classroom academic discussions.

The question raised by studies such as Tarone and Swain (1995) and Dewaele (2005) is how to provide L2 learners in classroom contexts with sociolinguistically appropriate input. Teachers are not appropriate sources for the adolescent vernacular; adults who attempt to use adolescent language merely wind up sounding ridiculous. Indeed, classrooms are clearly not the place for most informal varieties suitable to the home, the street, or the blue collar workplace, or for topics such as pop culture or certain kinds of recreational activity. Many teachers urge their students to leave the classroom and use their L2 in other social contexts—to study abroad, for instance, or to interact with heritage learners in the local community. For students who have no opportunity to study abroad, and no context for L2 use other than the classroom, a range of less-than-adequate tools exist. For example, Dewaele suggests the use of *telenovelas* in the foreign language classroom to expose language learners to the language of the home and of popular culture. Such sources, as well as films and short videos, can be used in the classroom to provide input on adolescent varieties, the language of popular culture, the language of sports, etc., and promote discussion of different types of language and their appropriateness to particular situations. We know that “input does not equal intake” (Corder, 1967)—that is, it will be difficult for learners to convert this informal input into intake so they can use it themselves in similar social situations—but some input is better than none.

To encourage production of informal styles, students may be asked to do role-plays, imagining how they might use their L2s in a range of social situations, even though the undeniable fact is that their teachers are still there judging their performance inside the four walls of a classroom. Internet chat may offer classroom-bound learners the opportunity to engage in authentic interaction with L2 speakers who are not teachers, and expose them to the stylistic differences of L2 that vary according to context. Van Compernolle and Pierozak (2009), for example, examined the use of three widely studied French sociolinguistic variables—*on/nous*, *tu/vous*, and *ne* omission—in 16 hours of moderated and un-moderated internet chat. They found that moderated chat closely approximated what L2 learners find in their textbooks and in teachers’ speech. However, un-moderated chat presented quite a different picture. Second-person *vous* was used 99.5 percent of the time in moderated chat, while *tu* was used 99.8 percent of the time in un-moderated chat. Results for the other variables were almost as dramatic. First-person plural *nous*, the formal variant, was used at a rate of over 90 percent in moderated chat, but at a rate of less than 5 percent in un-moderated chat, where *on* was the preferred form. Similarly, *ne* was categorically present in moderated chat, but absent from 84 percent of the instances of negation in un-moderated chat.
Based on the pedagogical framework of the New London Group (1996), van Compernolle and Williams (2009) offer a four-stage model for instruction involving teacher-led whole group identification of relevant variants, small group discussions to give learners the opportunity to use new forms, comparison of patterns of variation in French and the students’ native language, and finally participation in online French chat. (Online chat today can either be written or oral, asynchronous or synchronous; voice over internet protocol software such as Skype enables telephone-like synchronous voice interaction between foreign language learners and native speakers at minimal cost.) Participation in authentic communication through online chat may help meet L2 learners’ need for authentic input from peers and opportunities for informal stylistic and vernacular L2 use.

**Future directions**

Despite the demanding nature of longitudinal studies, we need more such studies if we are to understand clearly how L2 users move from non-use to variable use to near native-like use of target language grammatical forms, and how social context affects that movement. The nature of longitudinal studies necessarily limits the number of participants in each study. Nevertheless, given a substantial number of longitudinal studies of speakers of different L1s acquiring different L2s, we will be in a position to understand more clearly what kinds of factors, both linguistic and social, constrain learners at all levels, what constraints are particular to speakers of different L1s, which to speakers of different L2s, and what factors impact learners differently at different stages of acquisition.

In addition, as noted above, a number of researchers in sociolinguistics have combined detailed qualitative studies of speakers’ social groups with quantitative studies of linguistic variables. To understand fully the complex effects of social context on the L2 acquisition and use of language learners, we need similar studies of second language acquisition, particularly in immigrant communities. Variationist perspectives on SLA require that we move beyond the confines of the university, and conduct longitudinal, multiple-context studies of different types of learners, as they use and acquire L2s in the social contexts in which they live.

**Notes**

1 Authors’ names are listed alphabetically. Both authors contributed equally to this chapter.
2 Although we have several studies that show that individual patterns of variation match group patterns (Bayley and Langman, 2004; Regan, 2004), the studies are small scale.
4 For the syllable stress variable, unstressed > stressed means that unstressed syllables have significantly more t/d deletion than stressed syllables. For the next variable, consonant cluster length, three-consonant clusters have more t/d deletion than two-consonant clusters, and so on.
5 For detailed descriptions of the use of VARBRUL, see Bayley (2002), Tagliamonte (2006), and Young and Bayley (1996).
6 Dennis Preston (2002) has pointed out that he cannot use phrases from his academic register in Southern Indiana where he grew up without negative social consequences. Phrases like “Had I the ball,” for example, are too “high-falutin’” for talk on the basketball court.
7 *On/nous* are variants of the first-person plural pronoun, *tu/vous* of the second-person singular pronoun and *ne* is the first particle of negation. Use of *on, tu*, and omission of *ne* are characteristic of informal discourse.

**References**


Variationist perspectives


