Second language acquisition (SLA) concerns the learning of any language in addition to one's first language. The word second, therefore, has a broad denotation, referring to literally a second language, as well as a third, fourth, and so on. Language here refers to the linguistic system of the target language, that is, the language to be learned. Acquisition means gaining a command of that system, including being able to use it for communication, fluently, accurately, and appropriately. SLA can happen in a variety of contexts: It can happen without explicit instruction, in an immersion environment where the target language is spoken, in a classroom where the target language is the object of instruction and learning, or in a mixed environment where the learner has access to both naturalistic and instructed learning.

In today's world featuring an unprecedented pace of globalization and multilingualism, an understanding of SLA perforce takes on extraordinary importance to education in general and to second language education in particular. In this entry, a brief account is given of the history of SLA research and the seminal issues and methodology, followed by a summary of some current theories including categorical findings and continuing concerns, and then a discussion of future directions. This entry closes with a quick sketch of the implications of SLA research for second language education.

A Brief History of the Study of SLA

The scientific study of SLA as an independent field of inquiry took shape in the 1960s, its formal inception marked by the publication of a seminal paper by S. Pit Corder: “The Significance of Learners’ Errors.” The discipline has since undergone four mainstream conceptual shifts; chronologically, these are the following:
• 1. Behaviorist era (pre-1970s), when second language learning was largely viewed as a process of “relexification” from the first language to the second language, but essentially as a process of habit formation, reinforced by feedback and repeated practice
• 2. Cognitive era (1970s–1980s), when the new linguistic system itself as created in the second language learner—known as interlanguage—became the focus of study
• 3. Mentalist era (1990s), in which an innate mechanism known as universal grammar was considered the driver of second language development
• 4. Interactionist era (2000s), when cognitive systems interacting with environmental influences were actively pursued as both a descriptive and explanatory framework

Throughout its 4 decades of existence, the field of SLA has, consistently and heavily, been influenced by such disciplines as psychology and linguistics, while progressively opening itself up to other disciplines as well—sociolinguistics, psycholinguistics, and neurolinguistics, to name only a few. In consequence, the study of SLA is disciplinary and interdisciplinary to an increasing extent.

Seminal Issues

The field of SLA was spurred into existence largely by a widespread concern about the quality of learning: Lack of success is pervasive, learners typically winding up with variable attainment short of the target. At the epicenter of this concern is “fossilization,” a phenomenon whereby learning stalls despite favorable conditions such as adequate exposure to input, high motivation to learn, and plentiful opportunity for communicative practice, something not found in first language acquisition, which, by contrast, features ease, efficiency, and near-uniform success. The interlanguage hypothesis, the first SLA theory, uses fossilization as its argumentative basis to posit that first and SLA are epistemologically different. Hence, how SLA differs from first language acquisition has been a fundamental issue in SLA research. This issue breaks down into three questions: What is acquisition? How is acquisition possible? And how does acquisition develop? These questions combine to define the scope of SLA research, leading to
understandings of the distinct as well as overlapping mechanisms, processes, and outcomes relative to second versus first language acquisition.

Methodology

In pursuit of the fundamental questions, SLA research has largely emulated the social science tradition, thereby expending a substantive bulk of effort to conduct empirical and experimental research within normative, interpretive, or critical paradigms with distinct differences in theoretical orientation, research purpose, design and scope, participants, data collection, and data analysis. Early empirical research features a predominance of descriptive studies that by and large, have been superseded by experimental or quasi-experimental studies. The common data types are samples of learner language (e.g., writing), nonlinguistic performance (e.g., reaction time), and learner verbal reports (e.g., stimulated recall). Methods for data collection currently run the gamut from judgment to production, proficiency tests, language skills, individual differences and cognitive processes, observation and interviews, existing databases, and questionnaires and surveys. There has been a growing tendency to analyze the data quantitatively rather than qualitatively, with cross-sectional studies markedly outnumbering longitudinal studies, the goal being to uncover information about learner behavior or learner knowledge independent of the context of data collection. Studies of mixed-methods design (quantitative and qualitative) are as yet few and far between, but are clearly on the rise. The core domains of inquiry center around the lexicon, phonology, morphosyntax, and to a lesser extent, semantics and pragmatics. According to a recent survey of the field's four prominent journals, *Applied Linguistics, Language Learning, Studies in Second Language Acquisition*, and *Second Language Research*, the number of studies published has nearly quadrupled from the late 1960s to the early 2000. During this time, empirical research outpaced theoretical research, with the proportion currently standing at 85% for the empirical and only 15% for the theoretical.

[p. 1911 ↓ ]
Current Theories in SLA

The recent reduction of theoretical work notwithstanding, the field has experienced an influx of theories from other disciplines during the last 2 decades, notably from generative linguistics, developmental psychology, cognitive psychology, and sociocognitive psychology, resulting in two major contending conceptual architectures: innatism and emergentism or connectionism. The former is premised, inter alia, on the assumption that the human mind is modular, such that there is a domain-specific language faculty that serves as a genetic blueprint for language acquisition. Much of the linguistic knowledge is therefore considered innate, the developmental process putatively operating in conformity with the specifications of the language faculty. Emergentism, conversely, assumes that language acquisition is powered by non-domain-specific, general cognitive capacity interacting with experiential contingencies such as the quantity and quality of input. These two overarching theoretical perspectives, innatism and connectionism, have thus far spawned numerous theories, including but not limited to (a) the universal grammar, (b) the concept-oriented approach, (c) the associative-cognitive creed, (d) skill acquisition, (e) input processing, (f) processability theory, (g) autonomous induction theory, (h) interactionist theory, (i) sociocultural theory, (j) the dynamic system theory, and (k) the chaos/complexity theory. Each of these theories has guided empirical research to varying extents, with some studies addressing the nature and source of linguistic knowledge by virtue of a focus on learners’ mental representations and others targeting the developmental process by virtue of a focus on processing-related concerns.

Categorical Findings

For all its conceptual and empirical diversity, the field of SLA to date has nonetheless converged on a number of findings, including but not limited to the following:

- 1. Acquisition, which entails the development of a robust linguistic system and a facility in deploying it for various communicative purposes, is both cognitively and maturationally constrained.
• 2. Perceptual experience with the target language is a necessary condition for acquisition to occur.
• 3. Acquisition is largely an unconscious process.
• 4. Acquisition can happen both intentionally (i.e., through explicit rule-based learning) and incidentally (i.e., as a by-product of natural experience with the target language).
• 5. Explicit instruction (and corrective feedback) has limited effects on acquisition.
• 6. Acquisition of certain grammatical elements is predictable, in terms of their trajectories.
• 7. First language selectively affects the cognitive state, process, and outcome of SLA.
• 8. Acquisition is susceptible to individual differences both in exogenous conditions (e.g., quantity and quality of input and practice opportunities) and endogenous inclinations (e.g., age, motivation, memory, sensitivity).
• 9. Fossilization happens selectively in and across learners.
• 10. Second language ultimate attainment is variable, both across and within learners, simultaneously featuring full, partial, and zero convergence with the intended target.

These findings attest to the giant strides the field has made toward unraveling the three seminal questions noted earlier: what acquisition is (e.g., 1), how acquisition is possible (e.g., 1, 2, 4, 7, 8), and how acquisition develops (e.g., 3, 5, 6, 8, 9, 10).

Continuing Concerns

Whereas the previous findings are noncontroversial, they are broad-stroke facts, at best. Much, therefore, remains to be explored. A finer-grained understanding of each of those is desirable, from a disciplinary perspective as well as from an applied perspective, particularly as that understanding relates to second language education. For its particular relevance to the theme of this encyclopedia, here a brief explication is given of the status of second language instruction in SLA research.
Since the beginning, there has been an intricate and intertwined relationship between SLA research and second language instruction. On one level, the field of SLA originated largely from pedagogical concerns: How to free learners' from their errors so that they can approximate more closely the target language was and has been a driving concern in much of the SLA research. On another level, SLA has its own unique set of explanandums. Therefore, despite its logical affiliation with second language education, contemporary SLA research has pivoted toward being an independent branch of cognitive science. However, during the last 15 years, the field has seen an intense interest in studying learners' reactions to various pedagogical interventions either in a lab setting or in a classroom, giving rise to a distinct strand of research known as “instructed SLA.”

Instructed SLA research, as it is dubbed, examines both the impact of instruction on learning and factors modulating its efficacy. The research has led to the understanding that instruction is helpful to some learners at some stages of acquisition and with respect to some linguistic targets. But who are the beneficiaries, at which stage of learning, and which linguistic elements are responsive (or not) to instruction? And, above all, how do all these interact with the type of instruction, explicit or implicit? These are still unsettled questions. Explicit instruction harnesses learners' consciousness, whereas implicit instruction taps into learners' natural ability to induce patterns from experience. To date, neither has proven categorically superior to the other across the board.

One persistent roadblock to going beyond the current understanding of the role of instruction in SLA has been that researchers do not seem able to come up with a systematic design aimed at obtaining a larger or more holistic picture of the effects of instruction; rather, they seem content with demonstrating local effects of instruction by focusing on a singular, simple, and rule-based linguistic structure as its target. However, the limited scope of investigation may render only an incomplete and incoherent understanding, as has been amply attested in the current literature. Thus, how to break the confines of a limited focus is both a conceptual and methodological challenge facing researchers. To do so would require, inter alia, designing and conducting longitudinal, multivariate studies—including multiple types of instruction, multiple types of linguistic targets (simple and complex), and multiple levels of proficiency. This must then couple with longitudinal descriptive studies to chart the developmental path of
the interlanguage grammar in different learning environments (e.g., foreign vs. second language settings). Few of such studies are available in the second language literature, and for this reason, many of the existing claims about SLA have remained empirically shaky, including the popular claim that second language instruction improves the quality of second language ultimate attainment. In sum, only when the scope and duration of the empirical studies have been substantively ameliorated will the field of SLA have robust recommendations to make for second language education.

The problem alluded to previously is essentially one of narrowness, and it plagues the strand of instructed SLA research as well as the entire field to a certain extent. Present-day SLA research exhibits distinct and rather isolated quorums, each holding steadfastly to a particular way of thinking—interactionist, generative linguistic, constructionist, sociocultural, and so on. There is yet little crossover of ideas or collaboration between the different groups. The philosophical divide appears so deep that one quarter sees no point in reaching out to or for the other. Amid the negative consequences, the field has failed to reach a consensus on some of its fundamental constructs, including acquisition. Terminological confusion is rampant in both the theoretical and empirical spheres. Thus, despite its more than 40 years of existence, the field has advanced little in theory construction and has produced a sizable but essentially idiosyncratic research database lacking in congruence and generalizability. This state of affairs impedes rather than advances understanding: Often, researchers are found to reinvent the wheel because of sheer ignorance of what has been accomplished in other sectors, or even worse, to turn a blind eye to findings from other sectors. Either way of practice has resulted in “under-transfer” of knowledge within the field, which halts the disciplinary progress.

The phenomenon of under-transfer is arguably tied to another phenomenon, theoretical “over-transfer,” namely that the field is currently dominated by theories imported from other disciplines. Increasingly, researchers borrow, wholesale, theories from other fields in framing their perspective and research. Consequently, a particular external [p. 1913 ↓] “theory” rather than an internal SLA problem rules. Though not denying the value of borrowing, a difference in the manner of borrowing can matter greatly to the understanding of issues germane to SLA: It is one thing to let SLA research be informed by other disciplines, but quite another to let it be guided by them. The overreliance on field-external theories only renders it less likely for these theories to interface with each
other than had the theories been created from within the field. In other words, because of their epistemological and ontological differences, it is likely that the miscellaneous theories cannot interface either by design or by practice, in a third field—SLA. If so, external theories may potentially have two major limitations: They are inadequate, both as a descriptive and an explanatory framework. As such, their contributions to SLA research will necessarily be fragmentary.

Future of SLA Research

Judging by its developmental trajectory over the last 20 years, the field of SLA will be headed for greater interdisciplinarity in the years to come. In particular, an even closer interface is anticipated with cognitive psychology and cognitive neuroscience and, hence, a greater assimilation of insights from other fields into the general understanding of SLA and, relatedly, second language instruction. The growing extent of assimilation should be both celebratory and cautionary. As much as the external assimilation may enrich the conceptual and methodological repertoire of the discipline, it may divert its attention from looking inward, focusing on issues unique to SLA. Instead of being guided by external disciplines, there is a pressing need for theoretical and empirical SLA research to return to its seminal and fundamental questions, but, even more critically, a need for greater intra-disciplinary collaboration (in addition to interdisciplinary collaboration), so that a coherent understanding can be achieved with greater efficiency and generalizability, an understanding that may provide a reliable basis for second language education.

Implications for Global Education

SLA research is now conceived as a core component of the curriculum for second language teacher education. Both teacher educators and language teachers around the world look to the SLA literature as a necessary body of information on the basis of which to revise, invent, and implement pedagogical strategies. Given the high stakes, SLA research needs to be substantiated and broadened. Doing so would entail going beyond English (or any of the traditional cast of foreign languages) as the target
language, by including, inter alia, other emergent popular languages such as Chinese, Arabic, and Korean. This would also necessitate a closer collaboration than has been attempted between researchers and practitioners across countries so that organic findings can be obtained for the greater good of classroom-based second language learners.

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See also

- Bilingual Education
- Bilingualism
- English Language Learners
- English Language Learners, Teacher Preparation for Diversity
- Language and Content Instruction (English Immersion, SIOP, SDAIE)
- Language Proficiency
- Second Language Learning

Further Readings


