# Theories of second language acquisition: Three sides, three angles, three points

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### Abstract

Three recent books take up different positions in the on-going debate about how, and out of what, to construct a theory of second language acquisition. Johnson (2004) advocates a "dialogically based approach," inspired by Vygotsky's sociocultural theory and Bakhtin's "dialogized heteroglossia," with which she would replace what she views as a prevailing "cognitive bias" in the field. Block (2003) similarly supports a "more interdisciplinary and socially informed orientation" to second language acquisition. But Block wants to reform rather than replace certain assumptions of what he represents as the best existing theory of second language acquisition, namely, Susan Gass' Input-Interaction-Output model. Jordan (2004), on the other hand, argues forcefully that theorizing about second language acquisition must be based on a rationalist epistemology. He provides a set of "Guidelines" for theory construction, including six assumptions foundational to rationalist inquiry in general, and a five-point evaluation metric against which rival theories can be judged. He also passes on a list of six "practices to be avoided." Jordan encourages the cultivation of many, varied, theories so long as they observe the rationalist Guidelines. He goes on to criticize a broad sample of L2 research, commenting on whether specific proposals do or do not adhere to the Guidelines. This article reviews all three scholars' positions in this important debate, which has the potential to sharpen second language theorists' sense of what they are doing and how they should do it.

# 3

### **Review article**

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**Block, D.** 2003: *The social turn in second language acquisition*. Edinburgh: Edinburgh University. In the series *Edinburgh textbooks in Applied Linguistics*. viii + 162 pp. UK£19.99. ISBN (EU) 0 7486 1552 0 (paperback). Simultaneously published by Georgetown University, Washington DC. US\$26.95. ISBN (US) 0 87840 144 X (paperback).

**Johnson, M.** 2004: *A philosophy of second language acquisition*. New Haven, CT: Yale University. ix + 207 pp. US\$40.00. ISBN (US) 0 300 10026 4 (paperback).

**Jordan, G.** 2004: *Theory construction in second language acquisition*. In the series *Language learning and language teaching: Vol. 8*. Amsterdam / Philadelphia: John Benjamins. xviii + 294 pp. €36.00. ISBN (EU) 90 272 1706 8 (paperback). US\$42.95. ISBN (US) 1 58811 482 1 (paperback).

These three books converge, from three different directions, on the matter of what should constitute a theory of second language (L2) acquisition, and how to go about

constructing such a theory. Together they frame their shared object of interest to form a triangle of three unequal sides with no one book equidistant from the other two. And although none of the three authors cites either of the other two books, each one writes with the positions of the others in view, so that together they afford three perspectives on how to theorize L2 acquisition, each cognizant of the others. The resulting three-sided, three-angled configuration defined by three points is not inevitable, since it would be possible to juxtapose any number of other contributions to this long-running debate, as there have been many, which have held many relationships with respect to each other. But the reflections of Johnson, Block, and Jordan on L2 theories and theory-making indicate something of the range of the debate. Coincidentally, all three authors organize their expositions around triads of various kinds, so that the books comprise a threesome constructed of multiple sets of triplets.

## I Johnson (2004): Three sides

Marysia Johnson starts her argument with what she defines as three parties to a "hierarchy of power and control of knowledge in SLA" (p. 2), namely theoreticians/researchers, teachers/testers, and learners. She objects to giving priority to the contributions of theoreticians over those of teachers over those of students, and calls for "a new model . . . in which all participants have equal status, privileges, and rights" (*ibid*). But this re-distribution of power cannot be realized within the existing L2 research tradition, which Johnson characterizes as "linear" (p. 3), and invested in a "conduit metaphor of knowledge transfer" and "a false belief in the existence of a unidimensional reality" (p. 4). Johnson rejects what she calls the mainstream "cognitive-

computational tradition" (p. 11) of L2 research, with its "strong cognitive and experimental bias" (p. 5), its commitment to abstract linguistic competence over real-life linguistic performance, and the high value it places on the quantitative research methods of the natural sciences. Johnson's goal is to analyze the varied shortcomings of this tradition, and to argue for the superiority of a sociocultural theory of L2 learning derived from the writings of Vygotsky and Bakhtin. Her version of sociocultural theory locates L2 acquisition "not in the human mind but in locally bound dialogical interactions" (p. 4). It values attending to individuals' diversified experiences instead of group norms (p. 16). This is because sociocultural theory accepts the existence of a "hyperdimensional social reality [where] many voices need to be acquired and accepted" (p. 5). In this sense Johnson portrays it as open to the contributions of all three parties concerned with understanding L2 acquisition: theorists, teachers, and learners.

Having motivated sociocultural theory on these synchronic grounds, Johnson situates it historically as the third of three successive traditions of L2 research. Chapters 1 through 5—about half of the book—address the first two, behaviorism and the cognitive-computational tradition. As is conventional, Johnson joins behaviorism to Bloomfieldian structuralism and Fries' and Lado's contrastive analysis, then juxtaposes contrastive analysis to the works of Corder, Selinker, and Dulay and Burt, taken as products of early generative attacks on structuralist assumptions about language and language learning. Although the application of behaviorism in theories of language learning is no longer viable, Johnson sees its legacy living on in the experimental methods of cognitive-computational research. She claims that those methods follow from a positivist philosophy of science, in that they extract data from objectified subjects,

manipulating and measuring subjects' responses according to pre-established criteria (pp. 10–11). Non-conforming responses are discarded or at best marginalized. Moreover, Johnson criticizes research that analogizes L2 learning to the operation of a computer. To employ language like "data," "input," "intake," "output," "processing," or "storage" in the context of L2 learning is to adopt an asocial, mechanistic, orientation where the learner is "a loner in an artificially-created social context . . . described in terms of stable features defined a priori" (p. 85). Johnson attributes these assumptions to Kevin Gregg ("one of the staunchest proponents of Chomsky's linguistic theory" p. 37) and equally to Robert Bley-Vroman, whom she depicts as critical of generativism; to Stephen Krashen; to Michael Long and others inspired by his Interaction Hypothesis; to Bill VanPatten in his research on input processing; to Susan Gass and Larry Selinker and their Input and Interaction model; and to scholars of other affiliations like Vivian Cook and Rod Ellis. She also finds fault in research that explicitly acknowledges a role for social and performance-based components of L2 acquisition (Canale & Swain, 1980; Bachman, 1990), on the grounds that it still "present[s] an idealized, homogenized [,] . . . artificial and abstract" (p. 86) notion of human communication. To Johnson, all of this work constitutes a cognitive-computational tradition that "advocates the search for generalizability, the power of statistical procedures, the uniformity of human mental processes" (p. 14). In doing so, it "projects an image of a human being as a giant computer, self-sufficient and alone in the material world" (p. 15).

As an alternative to this nightmarish scenario, Johnson offers the work of Lev Vygotsky (1896–1934) and Mikhail Bakhtin (1895–1975). Chapter 6 introduces Vygotsky's life and writings, including his key assertions that cognition originates in

(and maintains a dialectal relationship with) social experience; that language, as "private speech," mediates between cognition and social experience; that the difference between an individual's present and potential capacities can be accessed within a "zone of proximal development"; and, in the Activity Theory developed by Vygotsky's students, that analyzing the components of human activities (motives, goals, operations, tools, interactions, etc.) provides insight into the development of consciousness. Chapter 7 turns to Bakhtin's counter-Saussurean emphasis on utterances over abstract sentences, and his claim that the association of typical utterances with specific contexts yields myriad patterns of language use, which he calls "speech genres." Speech genres are necessarily modeled on verbal exchange, so that in acquiring a language, learners appropriate the voices associated with speech genres, adopting them as inner dialogue. Bakhtin argued that instead of looking for underlying commonalities, study of language should investigate this "dialogized heteroglossia" as the basis of cognition.

Chapter 8 summarizes L2 research that has employed Vygotsky's and Bakhtin's ideas. Some examples: Ajaafreh and Lantolf (1994) use the notion of a zone of proximal development to re-conceptualize L2 fossilization, and to assess the effectiveness of specific error-correction techniques. Sullivan (2000) concludes that the implicit priority placed on equality, freedom, and individual choice in pair-work exercises makes communicative language teaching problematic in the sociocultural world of an L2 classroom in Viet Nam. Gillette (1998) uses the terms of Activity Theory in her exposition of how students' varying attitudes toward L2 acquisition affect how they go about learning, which in turn affects the outcome of their efforts. Johnson also reports conflicting evidence about whether the use of private speech increases or decreases with

L2 proficiency, and work that analyzes advanced learners' reflections on their development of a new sense of self within an L2 culture.

Chapter 9 reiterates Johnson's call to build a new, dialogically-based, model of L2 acquisition, attuned to the social, not cognitive, foundations of language learning. That model would be attentive to multiple local speech situations rather than language universals, and would employ methods that focus on the specific experiences of individuals, not (to use an expression from Chapter 1, p. 16) "normalized and homogenized" group means. Johnson concludes with some recommendations for improving L2 teaching and testing by the light of the sociocultural theory of L2 acquisition she promotes.

While it is clear that Johnson's objective is to raise the profile of an approach to L2 acquisition based on Vygotsky's and Bakhtin's writings, a reader has to work to understand how she positions sociocultural theory within the field. Johnson declares in several places that sociocultural theory has the power to "unite" the study of L2 acquisition: unite the existing "divergent views of SLA" (p. 1), unite "theory, research, teaching, and testing" (p. 17), unite "the two divergent traditions: the cognitive and the social" (p. 188; also, p. 45), and even "merge together" L2 learners' "external and internal realities" (pp. 170–1). But under the new, united, regime that Johnson envisions, it is not obvious what role cognitive-computational research might have, since she globally rejects its epistemology, goals, methods, and results. Alongside language about "unifying" the field of L2 acquisition, Johnson sometimes calls for "replacement" of the cognitive-computational model or of its components (pp. 169, 179). And in what might be an unguarded moment, she remarks that adoption of Vygotskian sociocultural theory

"would require that we abandon . . . the existence of a *general* language ability [and] . . . eradicate the assertion that SLA progresses along a predetermined mental path" (p. 172; emphasis in the original). Therefore despite Johnson's assertions about uniting L2 theory, what she has in mind may really be to "cull" it of the cognitive-computational approach, to use the loaded term of Long (1993, pp. 225 *et seqq*.) while reversing the direction of Long's critique.

Johnson's remark about "abandoning" and "eradicating" is telling. Sociocultural theory values listening to many voices, but notwithstanding her assertions about uniting L2 theory, she seems singularly intolerant of theoretical heteroglossia. Moreover, for an advocate of a "dialogic" approach, Johnson is oddly unprepared for dialogue. It is essential to dialogue that one make a sincere and patient effort to listen to one's conversational partner. But although Johnson champions listening to the voices of theorists, teachers, and learners, she doesn't seem to hear what "cognitive-computational" research has to say.

This is revealed in several ways. First, it is a ground rule of conversation that one calls one's partners by whatever name they choose. Therefore it is salient that Johnson resorts to inventing the label "cognitive-computational" to name an approach she opposes. Those who take that approach—which by Johnson's lights include Gregg, Bley-Vroman, Krashen, VanPatten, and Swain, *inter alia*—don't use that label for themselves. This is in part because they perceive important differences among themselves that no single such cover term would honor. It is also because whatever common denominator might be located in the work of alleged cognitive-computationalists, that would constitute a rather paltry basis for defining group

membership, perhaps akin to identifying cognitive-computationalists as those who value *some* variety of empirically-based research, a characterization which would likely apply to certain socioculturally-oriented scholars as well.

Second, it is similarly axiomatic that conversation requires one to try hard to understand whatever one's partner values, and why, no matter how alien it may seem. Johnson displays little such effort. For example, although Chapter 8 includes step-bystep accounts of more than a dozen studies that draw on sociocultural theory, in Chapter 3 she passes over generative L2 research with the remark that "Flynn (1987), for example, claims that adult L2 learners have full access to [Universal Grammar]. White (1989), however, believes that L2 learners only have access to the parameters that have been activated in their first language" (p. 41). Johnson's use of verbs is noteworthy: Flynn "claims"; White "believes"; earlier and later in the same passage, Gregg "sees . . . claims ... recommends"; Bley-Vroman "considers ... proposes"; Felix "agrees." What is arresting here is the virtual absence of references to twenty-five years of data. Instead, Johnson represents this stream of research as if it were carried out by the exchange of speech acts: claim and counterclaim; statement of belief; consideration, proposal, recommendation; agreement, disagreement. But it isn't. Generative L2 theorists, along with most work in the cognitive-computational tradition, perceive their research as driven forward by the dogged gathering and interpretation of strategically defined empirical data. Johnson makes clear her distaste for the methods of cognitive-computational research, but insofar as that distaste prevents her from trying to understand the results of this research, and why those who gather it value it so highly, so far real dialogue cannot take place.

One might add that Johnson reports data collected in some of the research presented in Chapter 8, and interprets those data as support for socioculturally-oriented inquiry into L2 acquisition (granted that the role of data in this tradition is more often to illustrate than to confirm or refute a hypothesis). Johnson does not discount data across-the-board as immaterial to theory construction; she only neglects to bring forward data relevant to views she opposes. By downplaying what cognitive-computationalists present as their signature contribution, Johnson doesn't seem to try to understand this work on its own terms.

What is more, Johnson sometimes doesn't seem to be listening to herself. The unclarity of whether she wants to unite cognitive and social approaches, or replace the former with the latter, is one inconsistency in her own voice. Another example lies in the gap between her assertion on p. 18 that in behaviorism "language learning (whether first or second) was considered to adhere to the same principles," and the text she cites on p. 23 from Charles Fries—whom she associates with behaviorism—that "Learning a second language . . . constitutes a very different task from learning the first language." Johnson is not the first to fail to hear the dissonance of these two claims, since the identification of Fries with behaviorism is fully conventional (Thomas, 2004). But it is disappointing that Johnson, as an outsider to cognitive-computational tradition who prizes individual differences that others gloss over, cannot break through to perceive the "heteroglossia" underlying these two remarks.

On the other hand, Johnson's book makes for some good reading. One virtue is that she writes clearly, managing to produce a helpful introduction to sociocultural theory in L2 acquisition that evades the notorious unreadability of many postmodernist tracts

(Gregg, 2000). Another is that some of the work she brings attention to is genuinely rewarding. For instance, I found Sullivan's (2000) analysis of 'Playfulness as mediation in communicative language teaching in a Vietnamese classroom' persuasive: pair-work probably can't succeed as intended in this L2 learning context, for exactly the reasons Sullivan indicates. As in much of the research Johnson presents, Sullivan observes a phenomenon, and then analyzes it using sociocultural categories and terms. But the fact that sociocultural categories and terms can be used in this way does not render them inevitable. Nor does anything in Sullivan's lively and thoughtful description convince me that this kind of analysis of what went on in a particular classroom should replace, or could "eradicate," research into (say) developmental sequences in the acquisition of L2 argument structure.

In their methodologies and assumptions about what is of greatest value in L2 acquisition, the sociocultural and cognitive-computational traditions are, in Beretta's (1991) word, oppositional. But—at least as presented by Johnson—in other ways they seem complementary, in the sense that they don't have enough in common to be treated as rivals. Most obviously, this is because one is concerned with the social dimensions of L2 learning, and the other with cognition. In addition, the cognitive-computational tradition invests first and foremost in explaining acquisition. Johnson sometimes declares that sociocultural research aims to explain something, for example, when she writes that it would "focus on identifying, describing, and explaining all possible speech genres" (p. 173). But the work she cites mostly "investigates": "investigat[es] the effects of the various speech genres on the learner's second language ability" (p. 173); "investigat[es] the processes that lead to becoming an active participant in locally bond social contexts"

(p. 179). In fact, because sociocultural research abstains from generalizing or universalizing, it is not clear how it could fashion an explanation that transcended accounts of individuals' experiences. For these reasons, sociocultural and "cognitive-computational" research do not assume the same burdens. If theories necessarily attempt explanation—as Jordan (2004), among others, believes they should—then in a technical sense sociocultural research cannot constitute a theory. Rather, it investigates the social and interactional domain of acquisition within what Johnson aptly labels in her title a "philosophy" of second language acquisition.

# II Block (2004): Three angles

If Johnson, Block, and Jordan triangulate the issue of theorizing L2 acquisition, the shortest side of the triangle lies between Johnson and Block. David Block shares Johnson's zeal for "more interdisciplinary and socially-informed (or socially sensitive)" research, expressions that together appear 29 times in the 8 pages of Block's Preface and Chapter 1. His book synthesizes support for that "social turn," about which he feels discussion to date has not been sufficiently constructive. Block differs from Johnson in that he insists that his aim is to "circumvent exclusionary stances" (p. 7) so that the social turn he looks forward to will change the boundaries of existing L2 theorizing but not replace it.

Chapter 2, "A short history of SLA," displays an important characteristic of the book, its heavy reliance on secondary sources. The first part of Chapter 2 is mostly built out of textbooks and digests of the field, notably Gass and Selinker (2001), with references to two dozen other surveys or synthetic overviews. Because Block's sources

largely agree about what constitutes the history of L2 acquisition, he concludes that therefore they are accurate. One might be cautious about conducting business this way, especially since some of these texts do what Block does, that is, cite each other as authoritative. Moreover, comparison of how the history of L2 acquisition is treated in the textbooks and digests that Block relies on reveals that they converge on a relatively small sample of primary sources. This suggests that what counts as historical background has been conventionalized, making it easy to mistake what has been written about what happened for what really happened.

In another instance of reaping what others have sown, Block finishes the chapter by paraphrasing different scholars' views of what a theory of L2 acquisition must account for. Block concludes that the Input-Interaction-Output model he attributes most centrally to Susan Gass (Gass, 1997; Gass & Selinker, 2001; Long, 1996) is the "the closest thing that we have to a 'big' theory to date" (p. 26), and "the most tangible result of 30 years of ... intensive research into how individuals learn second languages" (p. 30). Block reproduces as the gist of the IIO model a figure appearing in embryonic version in Gass 1988 (p. 200), then developed in Gass 1997 (p. 3) and Gass and Selinker 2001 (p. 401). The figure summarizes proposals about how "Apperceived Input" relates to "Comprehended Intake" and eventually to "Output," realized as a kind of flow chart consisting of labeled boxes. The boxes are connected by arrows representing claims about the relationships of factors bearing on L2 acquisition such as "Affect," "L1 knowledge," and "Hypothesis testing."

Block places the IIO model at the center of his critique of L2 acquisition theory.

He then organizes that critique around discussion of the meanings of the three terms

"second," "language," and "acquisition." Block analyzes what he perceives as disciplinary narrowness and social insensitivity in the field in general, and in the IIO model in particular, from these three angles.

From the first angle, Block objects to the "second" in "second language acquisition," on several grounds. "Second" downplays the multilingual complexity of many learners' real experiences, because exposure to an L2 can destabilize L1 knowledge, and because speakers often move fluidly among far more than two codes within an idiosyncratically-bounded "mass of linguistic competence" (p. 42). IIO-oriented studies suppress these complexities to take the "S" in "SLA" at face value. Block also questions the appropriateness of contrasting "second" versus "foreign" versus "naturalistic" language learning environments, citing evidence that the local context may belie conventional notions of how input to learners differs in these three environments. Block concludes that the critical determinant of success or failure is "how the individual learner negotiates and carves out an identity in the target language" (p. 55). He concedes, however, that many researchers de-prioritize these matters as a "clutter of variability" (p. 56), concluding pessimistically that the "S" in "SLA" will probably not yield to his favored expression, "additional language acquisition."

Taking a second angle, in Chapter 4 Block advocates revising our sense of the "L" in "SLA." In particular, he finds fault in the IIO-propagated notions of "task" and "negotiation for meaning." Because language use is not limited to information exchange, L2 pedagogy that relies on picture-description or problem-solving tasks ill prepares learners for the range of real discourse. What is more, exercises designed to engage students in negotiation for meaning artificially downplay the social context of language

use, wherein negotiation of solidarity, of face, and of identity complexify why and how real people talk. Like Johnson, Block argues that by idealizing language, much study of L2 acquisition marginalizes important social factors. But Block is not trying to do away with research which primes the linguistic over the social sense of "language," only trying to call attention to what a linguistic orientation misses. As in Chapter 3, he admits that scholars may legitimately define their work outside of social factors (pp. 84, 86, 90).

Block's assessment of the "A" in "SLA" recapitulates some of Johnson's critique of mechanical information-processing models, artificial experimental methods, and aggregate data, and depicts Vygotsky's and Bakhtin's work as an alternative. Block suggests that acquisition be re-conceptualized as a process of participation, or of becoming, wherein learners' affects and attitudes are studied as keys to the process of entering into an L2 "community of practice" (p. 113). He illustrates his argument by analyzing an interview with a Catalan-speaking learner of English, whose experiences in two different "communities of practice"—in a foreign-language classroom, and as a visitor to London—show that her social sensibilities shaped her capacity to take advantage of the language learning opportunities she encountered. As usual, Block ends the chapter by evincing doubt that L2 theory will re-define "acquisition" so as to accept the centrality of social and attitudinal factors.

The book closes with a catalog of what textbooks or overviews of the field have predicted about the future of L2 acquisition. Block iterates his reservations about whether a "social turn" will take place, although he counts his book as evidence that if that turn were to take place, it would substantially improve our understanding of how people acquire an L2.

Block thus shifts, and expands, the definitions of "S," "L," and "A," to include social and interactional issues in each case. Compared to Johnson, Block offers rather more of an insider's view of "mainstream" L2 acquisition theory, in all of its asocial, essentializing, mechanistic, glory; and he emphasizes that he wants to supplement, not displace, the status quo, even as he resigns himself to the continued marginalization of sociocultural theory. That undercurrent of doubt flowing beneath the surface of the text makes Block seem to anticipate that the upshot of his work will be, at best, something more like a feint than a wholehearted social turn. Perhaps this only constitutes a display of polite pessimism with regard to the success of his face-threatening proposals. Or perhaps Block himself is not fully committed to his claim to have demonstrated the value of "more interdisciplinary and socially-informed" study of L2 acquisition.

For this reader, neither Johnson nor Block succeeds in making a case that L2 theory must be redefined to incorporate sociocultural issues. Sociocultural research draws attention to intriguing facts about L2 acquisition that otherwise might not be brought to light, but those facts do not constitute a theory that challenges the validity of mainstream L2 acquisition research. For example, in the chapter on the "L" in "SLA," Block gives an extended commentary on Mackey, Gass, and McDonough's (2000) analysis of how learners interpret feedback in stimulated recollections of conversations with native speakers. He speculates that Mackey et al.'s data may reveal more than the researchers were prepared to hear, arguing that they inadequately investigated the impact on their data of gender, language affiliation, and negotiation of identity (p. 82). Block writes "I can think of other things that might be going on" (p. 86), a remark that seems to sum up his approach. Block circumnavigates research on "SLA", stopping three times to

call attention to "other things that might be going on." No doubt there are lots of other things going on: we can probably take for granted that, in the words of Wagner and Gardner (2004, p. 15), second language speakers "engage in quite exquisite [conversational] activities." Quite exquisite as Block's other things are, they don't constitute a challenge to Mackey et al.'s analysis, nor do they overcome Michael Long's skepticism that "a richer understanding of [learner identities], or . . . social context, makes a difference, and a difference not just to the way this or that tiny stretch of discourse is interpreted, but a difference to our understanding of acquisition" (Long 1998, quoted by Block, pp. 7, 136). At base, Block himself seems to recognize this fact, in that he repeatedly communicates doubt that researchers working outside sociocultural theory will be persuaded of its value. Thus he gives leeway to non-socioculturally-informed research to proceed at will. Vi The "other things that [Block thinks] might be going on" are in a complementary, not oppositional, relation to work that theorizes the syntax, morphology, lexis, and phonology of second language acquisition.

## III Jordan (2004): Three points

If Johnson's and Block's books connect the short side of a triangle, Geoff Jordan writes from a position considerably farther away compared to the distance that separates the other two. In doing so, Jordan lends perspective to Johnson's and Block's arguments by bringing into view some of the context surrounding them.

Part 1, comprising Chapters 1 through 5, provides a defense of what Jordan identifies as a rationalist approach to theory construction. Following a review of the terms and points of controversy that previous debate about theory construction in L2

acquisition has brought forward, Jordan launches into a spirited exposition of western philosophy of science, from Cartesian rationalism and Baconian empiricism, through Hume and the Vienna Circle, on to Popper, Kuhn, Feyerabend, Lakatos, and Laudan. Viii Jordan emphasizes the creative tension between two methods in the development of scientific theories, characterized as Baconian "research-then-theory" induction versus Cartesian "theory-then-testing" deduction. Along with Popper (but not without acknowledging Popper's critics) Jordan concludes that, since we cannot prove theories to be true, only show that they escape disconfirmation, therefore "the deductive method is the true method of science, and the role of observation and experimentation is to test our hypotheses" (p. 47).

Next Jordan connects the fertile late twentieth-century debate in the philosophy of science to the rise of relativism. Relativism challenges rationalism (and the realist epistemology rationalism assumes), on the grounds that there is no objective reality that science can investigate and hence no independent standards for evaluating opposing theories. Jordan covers developments in the sociology of science influenced by relativism; the radical postmodernist critique of science; and the more tractable relativism of constructivists, among whom he identifies Vygotsky. He accepts postmodernists' and constructivists' political claims, that an entrenched élite protects its disproportionate power, resulting in injustices of many kinds. But he objects that when it comes to building a theory of L2 acquisition, relativism has nothing useful to offer in place of rationalism. To Jordan, the most reliable knowledge about the world comes from developing an explanatory theory according to rules of logic, "scrutinizing [it] so as to discover flaws in terminology or reasoning" (p. 81), then avidly assessing and reassessing

that theory's capacity to explain phenomena observed in the environment. This is the core content of rationalism, and to Jordan theory construction in L2 acquisition requires a rationalist basis. Rationalism is not, however, to be confused with science. What counts as science has a broader scope and less precise boundaries; scientists may test theories rationally, but arrive at them through various means.

A long Chapter 5 is the heart of Jordan's book. He summarizes the case for rationalism, then evaluates four existing views of what makes an adequate theory of L2 acquisition. Jordan first criticizes relativists for failing to distinguish between two separate complaints: against disciplinary narrowness (about which Jordan feels relativists should be free to make their case), and against prioritizing rationalism as the key to L2 theory construction (a complaint Jordan flatly rejects). To Jordan, insofar as relativists investigate L2 acquisition atheoretically, or claim that no theory is intrinsically superior to any other, so far they do not contribute substantively to the discipline, even though their calls to increase interdisciplinarity and attend more to the local social context of L2 learning may have independent merit. Moving on to the writings of Kevin Gregg, Michael Long, and Barry McLaughlin, Jordan represents their diverse ideas about the contents of L2 theories as much more constructive, although he still finds room for improvement in each case.

All this sets the stage for the "Guidelines" Jordan presents at the end of Chapter 5 (pp. 114–118), a tri-partite set of principles for evaluating candidate theories of L2 acquisition. First, Jordan formally states six assumptions: the "minimally realist epistemology" that an external world exists and can be studied; that research cannot be separated from theory; that theories explain phenomena; that research attempts to solve

problems; that a unique scientific method cannot be formalized; that we need many theories, not a single paradigm. Second, Jordan specifies five criteria for evaluating theories. Theories should: be coherent, cohesive, and clear; have empirical content; be fruitful; be broad; be simple. Third, Jordan lists six practices and characteristics to be avoided, as indicative of "pseudoscience": too-casual approach to evidence; lack of falsifiability; failure to explain; attempts to derive writers' "real" meanings by interpreting their language; refusal to acknowledge criticism; and predilection for obscure prose. Jordan presents his Guidelines as a tool for discerning what works and what doesn't among attempts to theorize L2 acquisition. In his opinion, scholars who accept the Guidelines form a research community whose business it is to create more, and more daring and varied, theories and then to submit those theories to rigorous critique according to rationalist principles.

In Part 2 of his book, Jordan wields the tool of his Guidelines to assess existing attempts at L2 theory construction. He separates those attempts into three groups: generativist-inspired theorizing about Universal Grammar in L2 acquisition; "Approaches to SLA that offend the Guidelines"; and "Signs of progress," theories that come closer to meeting Jordan's critieria.

Jordan's treatment of generative research in L2 acquisition stretches over two chapters. Chapter 6 introduces Chomsky's work (in curiously elementary terms, beneath the level of sophistication presupposed by the rest of the text) and reviews points raised by a sample of three of Chomsky's critics (Jean Piaget, Geoffrey Sampson, and Elizabeth Bates). Chapter 7 assesses generative L2 theory. Although Jordan makes it clear that he considers Chomsky a thoroughgoing realist, wholly committed to rationalist

methodology, he declares that "[L2 theorizing that is based on] UG does not measure up well at all to the . . . Guidelines" (p. 151). Most of the chapter is taken up reporting what others have written pro and con generative L2 theory. But looking ahead to the end of the book where Jordan returns to the issue, his key objections are three:

- (1) UG is of little use in describing the knowledge involved in SLA, since most [of it] fall[s] outside the UG domain
- (2) UG is of no use in explaining the SLA process, since it is a property theory and thus has nothing to say about any process
- (3) the poverty of the stimulus argument has no force in relation to constructing a theory of SLA since the L2 learner already has a representational system in place (p. 255)

Point (1) is probably most important to Jordan. He considers generative L2 theory far too narrow, as a consequence of Chomsky's stance:

Chomsky's strict demarcation between science and non-science effectively rules out the study of E-language. Chomsky pays a high price for such a rigorously scientific theory; [he is forced to adopt] an extremely limited view of what language is and consequently his theory neither describes nor explains many of the phenomena that interest linguists, and far less . . . the phenomena of SLA. (p. 156)

### Therefore:

Those in the field of SLA who take the [UG] approach . . . can be seen as either lucky to have a cogent framework to guide their work, or unlucky to be restricted to such a tiny domain. (p. 255)

In singling out generative L2 theory as the first, and only constituent member, of the three categories of theories he assesses, Jordan emphasizes that generative grammar has a virtue competitor theories find hard to match: it provides the basis for an adequate property theory (that is, a theory of what it is that is acquired). But overall Jordan conservatively assesses generative L2 theory's capacity to contribute to rationalist research, because of generative grammar's limited range. Jordan's other reservations have to do with generativists' lack of a transition theory (a theory of how acquisition takes place), and his conviction that the poverty of the stimulus does not hold for L2 learners. About the latter point, Jordan adverts briefly to Carroll's (2001) rejection of the poverty of the stimulus in L2, then breezily claims that transfer allows adults to acquire L2 knowledge empirically (pp. 255–256). This matter deserves much more thorough treatment than Jordan gives it.

Putting generative theory behind him, Jordan moves on in Chapter 8 to proposals that he judges to be even less in compliance with the Guidelines. These include postmodernist approaches (dismissed on the basis of his earlier analysis of their incompatibility with rationalism); contrastive analysis; the ethnography of communication; Krashen's Monitor Model; variable competence; acculturalization / pidiginization; and research on aptitude and motivation in L2 learning. Jordan indicates how, in his opinion, each of these approaches "offends the Guidelines" in its own ways.

Chapter 9 proceeds on to what Jordan presents as greener pastures, research that more closely observes (at least some of) the Guidelines. This third category includes error analysis; morpheme order and other studies of staged development; processing-based research variously developed by McLaughlin, Schmidt, Long, and Pienemann;

Towell and Hawkins' model; Bates and MacWhinney's Competition model; and emergentism. This is not to say that everything treated in Chapter 9 compares favorably with everything treated in Chapter 8, because in both cases Jordan makes free with criticism and—occasionally—praise.

The final Chapter 10 veers a bit out of control as Jordan tries to synthesize his argument, but can't resist commenting on a few more ideas about L2 acquisition theories that happened not to fit in earlier. However, the book ends with a neat turn of the screw:

I believe that Popper is essentially right. Problems are the stuff of theories; we should articulate what the problems are that our theory is going to address, and then we should fly any kite we like. When we come to evaluate our theory, then we need to use rational criteria that rest on realist epistemological assumptions. (p. 265)

Overall, Jordan's application in Part 2 of the argument he built up in Part 1 comes across as something of an anticlimax. That is because, first, Part 2 relies heavily on secondary sources—many of the same standard textbooks and digests that Block relies on—so that Jordan's commentaries don't always seem to derive from firsthand exposure to the work he is assessing. This doubtless rendered the task of writing the book more manageable, but it likely limited Jordan's creativity: a pity. Second, in Chapters 8 and 9 Jordan doesn't always go deeply enough into specific proposals about L2 acquisition to justify his evaluations or explore their ramifications. xi Even in the case of generative L2 theory, to which he devotes 42 pages, Jordan leaves hanging the key issue of the poverty of the stimulus. In Chapter 8, he dismisses six "offensive" approaches (seven, if one

counts his recapitulation of the argument against relativism) in 34 opinionated, informative, but thin, pages.

### IV Conclusion

Stepping back to bring all three books into view, it is worth pointing out that what Jordan most objects to is not the milder relativism of Block or even Johnson. Both the latter would probably assent to the existence of an objective external world, and agree with Jordan that research should attempt to solve problems and that theories should be fruitful and broad. Nevertheless, neither Block nor Johnson writes as if expecting that a theory must explain phenomena or be falsifiable. The absence of those core characteristics is enough to identify Block's and Johnson's among approaches that in Jordan's view "offend the Guidelines."

However, it is a larger question whether that only means that Block and Johnson can't claim membership among rationalist theorizers of L2 acquisition, or whether that means their work has no legitimate claim to one's attention. The architecture of Jordan's book suggests how this kind of question could be used to good advantage in graduate education. One might assign students in a seminar on L2 theory to read and critique Jordan's Part 1 as an extended argument for the value of rationalism in L2 theory construction. Individual students could then be made responsible in depth for one or more of the "offensive" or "sign-of-progress" theories (or for other proposals about L2 acquisition: Block's book, Johnson's book). The students' first task would be to assemble and master a bibliography of the relevant primary sources. Eventually, they would take turns presenting to each other the contents of one or more proposals, and

justifying their evaluation according to Jordan's Guidelines, or according to alternative criteria whose value they can demonstrate. Students could very well exit such a seminar fortified against the "confusion and misunderstanding" about L2 theory construction that Jordan laments (p. 3), and that all parties to this debate have a stake in abating.

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### Footnotes

See the special issues of *Applied Linguistics* Vol. 14 No. 3 (1993), and *The Modern Language Journal* Vol. 81, No. 3 (1997), with subsequent rejoinder and surrejoinder (continuing into *Applied Linguistics* Vol. 15 No. 3 and Vol. 17 No. 1, and into *The Modern Language Journal* Vol. 82, No. 1). Also see the exchange between Lantolf (1996, 2002) and Gregg (2000, 2002). All three texts under review cite some of this work. Block and Jordan do so extensively.

- Thomas (2004) analyzes various problems in this standard presentation of the relationships of behaviorism, American structuralism, contrastive analysis, creative construction, and early generative grammar. It should be noted that Block and Jordan posit essentially the same problematic relationships.
- iii In another example of failure to attend to what matters to one's opponents, Johnson only mentions in passing two key themes taken up by many in theorizing L2 acquisition: the creativity of everyday language use, and the poverty of the stimulus.
- Although Johnson discusses Vygotsky's writings on human mental processes, the sociocultural theory she advocates emphasizes that L2 ability "is not situated in the learner's mind but . . . in sociocultural and institutional settings and in a variety of discursive practice to which the learner has been exposed" (p. 172). This contrasts with Lantolf and Appel's (1994) and Lantolf's (2000) reading of Vygotskian psychology, which foregrounds his theory of mind.
- <sup>v</sup> For an introduction to Vygotsky and Bakhtin, go to Lantolf (2000), not Block. Block's version is too truncated, as when he explicates Activity Theory by chaining together

the sequence of words "Need / Objective / Motive / Goal / Action / Condition / Operations," interspersing each word with an arrow pointing to the word on the right (p. 102). This communicates little about what relations Activity Theory actually posits between these terms.

- vi This may represent a softening of Block's stance, compared with the more confrontational tone and less accommodating position Block (1996) staked out.
- vii Kevin Gregg (personal communication) pointed out that Jordan sometimes uses the term "rationalism" where "realism" would seem called for, for example in opposition to relativism or constructivism. Jordan expands the sense of "rationalism" so that it not only contrasts with empiricism and positivism as a research methodology that prioritizes deduction over induction, but also labels an orientation that accepts the existence of an independent world liable to scientific inquiry. Jordan mentions realism as an initial assumption of rationalism (p. 115). See Gregg (2003) for background.
- Don't skip Jordan's footnotes to Chapter 2, in which he has buried entertaining first-hand anecdotes about the contentious late twentieth-century philosophy of science pantheon, thundering at each other like gods on top of Olympus.
- ix Jordan (p. 98) includes Block and James Lantolf among relativists he criticizes in these terms, a characterization that seems rather too broad.
- <sup>x</sup> Jordan attributes to Casti (1989) the first five of the six hallmarks of pseudoscience.
- versus Nick C. Ellis, despite the fact that both scholars get more than passing attention.

  Consulting the index doesn't help, as it lists a single entry for "Ellis, R., N" (p. 287).

Under that superscript, at least one cited span of pages, pp. 242–244, conflates references to both men.