

Claude GERMAIN. *The Neurolinguistic Approach (NLA) for Learning and Teaching Foreign Languages: Theory and Practice*. Newcastle upon Tyne, UK: Cambridge Scholars Publishing, 2018. xi + 231pp.

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Exploring connections between a second-language (L2) we know, how we appropriate it, and how it can be taught is what Germain boldly assumes as the main questions in his book. He intends to shorten the distance created in the 90s between the major processes involved in a L2 learning process: acquisition and learning. By endeavoring to do so, the author proposes to eliminate their compartmentalization and offers to draw the link between them. The importance of this enterprise inevitably draws the reader's attention to what are to be the main issues throughout the thesis the author proposes. Bearing in mind that these are inherent issues to any L2 learning-teaching process as well as part of the ground upon which pedagogical stakeholders anchor themselves theoretically, the book opens by inviting L2 teachers, L2 researchers, and L2 pedagogy students to consider an alternative perspective on L2 teaching.

The fundamental pillars on which Germain anchors his thesis are neuroscience and most of all Michel Paradis's work on neurolinguistics and memory. These are the main sources of scientific validation of Germain's theory. In fact, the book stems from both his previous research in the area (along with his colleague Joan Netten) while working mainly in Canada on issues related to French as a second-language.

Having set the goal of connecting acquisition and learning through neurolinguistics principles, Germain introduces us to Part I, the theoretical ground of his thesis. Further ahead, the reader is guided through Parts II and III where the author goes deeper into pedagogical practical choices with a L2 classroom context. Later, in parts IV, he gives voice to his public, mainly teachers but also students of French as a second-language. Germain's efforts in the area have resulted in a Neurolinguistic Approach to language teaching (NLA) which he describes as "a new way of conceiving the relationships between appropriating (acquiring and/or learning) and teaching a second or foreign language" (p. 3). The NLA aims at "creating optimal conditions, in a classroom setting, for spontaneous communication and successful social interaction" (p.3).

Part I introduces the reader to five lessons provided by neuroscience and applied by Germain to a L2 learning process. The first one stresses the separation of both declarative and procedural memories. Following Germain's take on Paradis's theory, "[d]eclarative memory deals with facts or conscious knowledge" whereas "[p]rocedural memory (...) is the memory involved with skills" (p.4). In what

refers to language, the first is an “explicit or conscious knowledge” and the second covers “any implicit competence or unconscious skill” (p.4). The way both of these mechanisms work in the brain forms the core of Germain’s theory on L2 learning and feeds his teaching methods described ahead in the book. So what does the separate nature of both these processing paths imply for the L2 teaching-learning process?

Most of all, it brings us to a practical issue concerning the explicit teaching of grammar and its function. In light of Germain’s view, “explicit rules of grammar (...) can only be used explicitly and in a controlled manner” (p.6) and never become automatic since procedural memory does encompass transference from declarative memory. Consequently, acquisition and learning can not be seen as a continuum, but rather as one way route, one that departs from the implicit and ends on the explicit end of the line, as it happens with children who, after acquiring their L1, learn how to read and write and hence look at their language from a increasingly abstract point of view. The opposite is not a possibility, according to Germain. The product of an implicit linguistic skill is able to be explicitly monitored, very much following Krashen’s design (1981), whereas knowledge is not able to be proceduralized. This happens due to the frequency of use that is necessary in order to create memory paths out of regularities from which the brain is able to draw patterns (p. 8). However, explicitly learned information is not, following Germain’s view, available for automatization.

The second lesson focuses on the high flexibility of the brain. This, Germain tells us, derives from the fact that the idea of a specific language center in the brain simply does not exist. By showing us brain scans (from Damásio and Damásio 1997), Germain reminds us that words are perceived and processed by different brain areas, depending on the input (auditory, visual, etc), thus setting aside the possibility of a single area in charge of all the language work or even of a chomskyan language device (pp. 9-10). At the same time, he refuses any type of determinism or rigidity on what concerns the brain by following Vygotsky’s point of view on human development in society, which by nature is presented as a flexible, evolving view of the brain as we “learn and interact with [our] environment” (p.9).

Germain elaborates on the separate nature of declarative and procedural memories and adds further information to the processing of language in the brain. The division of mechanisms that handle and store language extends to words. These are, according to Germain, who follows Masson’s views on this matter, subject to conscious, explicit processing and also unconscious, implicit intake. The first process is inherently declarative and metalinguistic whereas the second enables the speaker to intake words in a given morpho-syntactic, phonological context. What this implies from a pedagogical standpoint is not to be mistaken with slight changes to teaching approaches, as Germain shows the reader in the second and third parts of his book.

Having established the separation between the two memory systems at stake and the different ways words are handled and stored in the brain, the author guides

his reader through the remaining lessons provided by neuroscience. The third one focuses on meaning and on language tasks. This is an eminently pedagogic principle and, although Germain speaks directly to those of us who plan lessons and put them to practice every day, the third lesson he offers starts shedding light over the consequences of his theoretical base. Explicit teaching of grammar is then almost completely set apart by defending an approach that privileges project pedagogy and the implicit acquisition of language in the classroom. The fourth principle presents us with the justification of the previous one. Only that which is authentic may activate the limbic system and thus motivate students to learn a L2 in an environment that should emulate real life as much as that can be done in a classroom. The closer the context of learning is to a real-life situation, the more students progress into their acquisition/ learning process (p.12).

Finally, the reader is faced with the final principle in Germain's postulate. Social interaction is seen as the link between input and intake as the teacher is the element who defines the quantity and quality of both input and intake. Vygotsky is mentioned in order to support the benefits of social interaction in a learning process. In fact, Bruner (1966) could also be called to Germain's aid at this point.

These five lessons from neuroscience lead the reader to the NLA's five fundamental principles. First, the existence of two grammars, internal and external. By internal grammar, the author means implicit processing, i.e., acquisition, whereas external grammar is the explicit, conscious processing of language. Learning is then connected with reading and writing as opposed to acquiring which is mainly presented as an oral process. This view might remind the reader of Krashen's (1981) perspective on a defined separation of acquisition and learning or of real-life language appropriation vs artificial classroom comprehension of a language. Nevertheless, Germain assures us that both these ways are feasible in the classroom, unlike Krashen (1981). The implicit competence (from Paradis 2004) Germain alludes to is what is implied by the internal grammar. But the issue at stake is very much consequential on our overlook of language skills involved in using a language as the author states that "the proportion of unconscious skills is greater in oral than in written communication" and that "conscious knowledge is of greater importance in written than in oral communication" (p. 18). This is ultimately the core of Germain's postulate and also its originality as an applied neurolinguistics perspective.

Germain privileges orality and acquisition as the most relevant teaching principle and that clearly comes across his lesson scheme. Teachers are advised to start by asking a question related to their own personal experience to students, such as *What's your favorite book?* Teachers should then provide a model answer which is to be followed by students during the first part of the lesson. Mistakes should be corrected immediately and consistently to avoid fossilization. This is always the first stage of the lesson since orality precedes reading and writing and is always the beginning of an acquisition/ learning cycle that aims at handling themes that students recognize and therefore should be motivated to speak about. This cycle is what Germain defines as the "Literacy Cycle" (p. 21). "For beginners, reading

also means the ability to recognize in writing what they can already say” (p.20), Germain says. So the primacy of orality seems to be mostly meant for beginners, but there is not a description of how an advanced lesson should differ from this rigid scheme. Speaking is also where the cycle ends, i.e., after a question-answer interaction comes reading and writing, to which speaking always follows. Of course, these different uses of language revolve around the same topic and are constructed over a sentence-based pedagogy that privileges complete sentences and rejects the word as a basic language unit. Words are only valid as parts of sentences while speaking and reading is seen as sets of paragraphs. Writing is seen as a full purpose task, i.e., the text is in itself a language unit that is to be seen as an organic body of elements flowing into one single bulk of meaning (p.22). The idea that prevails is one of meaning above detached analysis of language elements.

Authenticity is importantly distinguished from role-playing and motivation is also separate from a ludic approach to teaching. Truth in the activities proposed to students brings motivation by prompting the exchange of personal experiences and opinions, the author tells us. One might question, however, how authentic is Germain’s project of conceiving a textbook for adult learners which revolves around a character who writes a blog about his/her life which progresses according to the rhythm imposed by a teaching curriculum. Although this might seem closer to real-life or even more motivating, it does not seem very far from what is usually included in L2 textbooks nowadays. One might also argue that such a rigid lesson layout as the one the NLA proposes could be seen as repetitive or even not very creative either for teachers or learners.

In the third chapter, Germain compares the NLA to other teaching approaches. He starts by alluding to the grammatical paradox mentioned by Paradis (2004) according to which very often L2 learners explicitly know a set of rules without being able to use the language. On the opposite side of this paradox, an implicitly appropriated language enables a speaker to put his language to use even though there is no awareness of rules. This is again explained by the separate nature of the two memory systems that predominate in an appropriation process. Germain refers to Paradis (2004) when he refutes the transferability of explicit knowledge to an implicit competence. Indeed Paradis (2004; 2009) sustains this view insofar as he states that there isn’t even a continuum between these two brain mechanisms (Paradis 2009: 26). Nevertheless, Paradis (2004) also admits to a gradual “shift from the almost exclusive use of metalinguistic knowledge to more extensive use of implicit linguistic competence” (p. 61) by practice. Where Germain rejects all connections between the two memories and hence defends a separate approach in teaching methods, Paradis (2004; 2009) stands for a replacement of one circuit for the other. What this implies from a teaching-learning perspective could have an impact in the classroom.

Germain goes on to distance the NLA from the CEFR (Council of Europe 2001) view of language learning by establishing a difference between an approach that almost exhaustively focuses on learners’ personal experiences and successive projects and a task perspective, hitherto isolating process and product-based

approaches. Where the CEFR proposes tasks, Germain offers projects. Although he defines them as linguistic activities with a purpose (p.42) as well as a “cooperative achievement” (p.41), these are described as very different activities from the CEFR’s proposal. By bringing a project-based approach into the L2 classroom, Germain hopes to favour acquisition instead of explicit knowledge teaching since the goal is to focus on the successive meaningful projects rather than on language tools to achieve the final project. For the sake of clarification on CEFR’s take, it is fair to mention that the CEFR’s Companion (Council of Europe 2018) also sees tasks as part of an action-oriented approach whose “primary focus is not language” (p.27). It implies some kind of product that resembles “planning an outing, making a poster, creating a blog, designing a festival” (p.27). These outcomes are meant to be supported by the CEFR’s descriptors that the teacher or course designer is by no means strictly obliged to use, since it is meant as a basis upon which teachers may construct their lessons, design their courses and assess their learners’ progress.

So far, Germain proposes a total separation between implicit and explicit material and processes in the brain, which is meant to sustain his similarly designed separation of orality and reading/ writing in the classroom.

The author goes on to describe how the NLA views the role of the teacher (p.43) as an enabler of an authentic communication environment in the classroom which he contrasts with what he perceives as the current methods used nowadays, i.e., grammar centered lessons where the learner is expected to know the language as opposed to using it. According to Germain, “[t]he belief persists that one can learn a language to communicate orally via written language” (p.47) which translates into a fixed order in class that establishes “[l]earning of vocabulary, conjugation and grammar”, “[e]xercises to transform knowledge into skill” and finally “[o]ral communication activities” (p.49). From his perspective this stems from a “confusion between language considered as a subject for academic study (...), and language seen as a genuine means of communication and social interaction” (p.50). One is left wondering, however, if academic writing can not be regarded as a “genuine means of communication” in a specific context, within a certain realm of interest and public. Writing in general seems to be, in Germain’s postulate, a means to look at language in its written linguistics dimension, much the same as a child learning to read and write. However, it is still the means through which many of us communicate as communication is not exclusively oral.

The remaining NLA’s principles are not so much prone to doubt as the first one and are in fact familiar to those who teach a second-language: 2) Literacy and the pedagogy of sentence; 3) Prioritizing meaning and a project-based pedagogy; 4) Authenticity in the classroom; 5) Social interaction to improve progress (p.16). From these, the most relevant one seems to be the pedagogy of sentence. Although Germain does not allude to this very extensively, it would have been interesting to read more on how to implement this view in class. The pair question-answer is useful but approaching the sentence as a unit goes further than this dynamics. By repeating structures and only replacing items in a sentence, how do students

react to a question posed differently in a real-life situation? And how are they to progress to higher proficiency levels that imply more complex utterances not always necessarily centered in their own personal experiences?

Part II is a practical teaching manual that intends to show teachers how to put the NLA to practice. Once again, the author underlines the importance of the acquisition of an implicit grammar through orality only and the use of reading and writing to learn explicit grammar. By advising the teacher to eliminate any written records of the first stages of the lesson, the author hopes that acquisition takes place by the repetition of a question-answer scheme always based on teacher's and learners' personal experiences. To this he adds systematic mistake correction either from a functional linguistic perspective or from the prosodic and phonologic standpoints.

Germain postulates 5 strategies (and 3 additional underlying principles) for everything that goes on in the classroom since the first minute. The teacher provides a model sentence orally, then asks a student, who in turn asks another, the teacher asks random students the answer they had from their partners. Fluency, precision and purposeful listening and important principles throughout this activity while which there is no writing either on the board or on notebooks. By eliminating writing from this phase of the lesson, Germain hopes to reinforce the auditory dimension on language acquisition because "a written word does not activate the same network of neural connections that a heard word does" (p.63). One wonders if writing the model question and answer could not be a parallel aid to procedural traces the author wants to create in the brain. There is no question about the separate nature of both implicit and explicit information storage in the brain. Nevertheless, Paradis (2009) does indeed clearly state that, although "[t]here is no continuum from automatic to controlled processing" (p.26), "controlled processes are replaced by automatic processes" (p.25). It is worth quoting Paradis more extensively on the matter, since Germain mostly uses his research to explain the NLA: "What may, at some level of abstraction, be considered as a continuum is the gradual replacement of the conscious use of metalinguistic knowledge by the automatic use of implicit linguistic competence" (Paradis 2009: 26). It may then be argued that the two systems are compensatory in a non-exclusive way, although separate, which may lead the reader to question Germain's approach to oral and written skills as completely set apart in the classroom.

Additionally, when Germain proposes that this approach to orality boosts fluency, it is again worth quoting Paradis (2009) when he defines fluency as "the absence of pauses and other indices of word-finding (or grammatical) difficulty" (p.6). It results from what he perceives as "speed of delivery". Hence fluency "[m]ay result from speeded-up controlled performance" (p.6) and not acquisition only. As for accuracy, or precision in Germain's words, Paradis (2009) also reminds us that it refers to "the similarity to native speakers' grammar in the case of L2" (p.6) and that speaker may have internalized a grammar which may be deviant from a native speaker's one. Precision is not proof of good acquisition either. In fact, "[t]here is little evidence that L2 learners actually do acquire (part of) the L2

grammar”, according to Paradis (2009: 7). And perhaps most importantly, Paradis also states that a positive relationship was found between L2 proficiency and L2 metalinguistic knowledge (p.7). One might perhaps infer some benefits of a more interactive approach in what concerns orality and writing or even between a more acquisitional methodology and another relying on declarative support so as to enhance both appropriating paths. Splitting the lesson in such a way might also bring some frustration to students who are accustomed to relying on writing in order to learn from the first minute in class. There are those who would happily go for a more practical, inductive approach, but we all have met students who write in order to make sense of what they learn and prefer to rely on a more deductive, rational approach to any subject.

On the other hand, until neuroscience is able to clearly explain what exact mechanisms underlie implicit linguistic competence, as Paradis (2009) reminds us, we can only assume there is an entity that allows native speakers to (re) combine linguistic elements into linguistic units, or grammar, as we understand it (Paradis 2009: 2). Paradis (2009) also reminds us that procedural memory is only able to serve L2 learners up to a certain extent since its role depends much on the circumstances of appropriation, namely age of first contact with the L2, the methods implied in this process, as well as the circumstances of exposure to the language (context, use, etc). That explains why adult learners are more prone to rely on their explicit competence and on “higher-level supervisory processes” (Paradis 2004: 36) to compensate for gaps in their appropriation process of an L2. This does not exclude Germain’s approach to teaching. On the contrary, one must keep in mind that although it may be impossible to appropriate an L2 exclusively through acquisition, it does play an important role in the classroom. One might question only the NLA in what concerns the compartmentalized view of the lesson and the elimination of writing in the first stages as an auxiliary tool if not for all learners, definitely for some.

One of the schemes Germain proposes for reading, either narrative or informative texts, seems in tune with a complete appropriation process and enables the learners to explore a written text in a deep way. The author proposes a pre-reading stage, very much centered in orally making predictions about the text or discussing its hypothetical content. From there, Germain proposes a first reading aloud by the teacher, a second reading aloud by the students and a third silent one to notice linguistic items that may pose an obstacle to understanding the text. This is the “moment of grammatical observation” (p.90). Again, writing shows as a mere representation of oral language because “when writing, learners only have to concern themselves with punctuation, rules of agreement, and silent letters” after orality is cemented, according to Germain (p.113). Then follows the inductive formulation of grammar rules, provided students notice linguistic items the teacher had in mind when the text was selected, and finally a written project follows always connected with the previous reading. The cycle continues with another oral moment devoted to reading students’ texts aloud as well as discussing them.

Part III defines the NLA as “a new paradigm, (...) a new way of conceptualizing the connection between appropriating (acquiring and/or learning) and teaching a second or foreign language” (p.126) and describes the steps of its implementation mostly in Canada and in China.

Part IV describes the outcomes of the NLA and warns the reader that although its “strong suits are oral proficiency and writing proficiency, (...) *at the moment* (...), listening comprehension and, especially reading comprehension are weaker points.” (p.180) Germain does not explain why, but the reader is led to assume that these shortcomings are due to the lack of lesson materials soon to be released under the form of a textbook for adults. Chapter 8 is devoted to strategies concerning teacher training. For Germain, it is important to “build awareness of the connection between the acquisition/ learning of a language and its teaching” as well as to “emphasize the human variables of language teaching rather than the *material* variables” (p.198), hence learner and teacher as opposed to classroom materials.

So do NLA’s learners really acquire the L2 they’re learning? And is it the best L2 teaching methodology available? Could it be yet another didactics approach doomed to oblivion, as Germain himself posits towards the end of his book?

Perhaps the most important contribution of the NLA is the fact that its developers try to apply Paradis’s neurolinguistic theory to a teaching setting. That, in itself, is already a considerable achievement since neuroscience is not often seen as a possible contributor to teaching methods. In addition to that, one of the most interesting points in Germain’s book is the need for more time devoted to appropriating an L2. Repeated use of a language can not be achieved in 45 to 90 minute lessons per week. It takes time, which is why Germain recommends intensive courses. It is also needed to ensure that all learners have the chance to use the language either orally or by writing equally.

Also the fact that the book draws attention to the personal sphere of teacher and learner is not to be ignored. Most of the learners will feel valued in their contributions to the class and therefore motivated to intervene, whereas others may not be too comfortable sharing bits of their lives. It would be important to stress the importance of not putting too much pressure on those. Furthermore, this enhances the weight to teacher training. Only teachers who see their trade as one that entices more than just the transmission of knowledge will be ready to share their interests and preferences and perceive value in this exchange.

Lastly, the concept of *neuroliteracy*, or “the ability to *use* a language to listen, read, write, and even think critically” (p.201) is not to be ignored. Germain draws our attention to principles that are not entirely unknown in this respect, but that may often be considerably put aside for the sake of curricula. The literacy circle (p.202), i.e., the sequence that goes from speaking to reading, writing, and finally to speaking again is an important part of what *neuroliteracy* means to cover regardless of how compartmentalized these skills are in the course of a L2 lesson. The book under review is for reasons already stated an important tool for L2

teachers and researchers in L2 learning processes as well as teacher training specialists. These are the main readers of Germain's postulate and the ones who may greatly benefit from his perspective on L2 teaching. The questions he poses are indeed the same his readers are faced with: how do speakers appropriate a L2 and what are teachers able to do to facilitate the process? Other than looking away from the main issues involved, Germain does provide answers.

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REFERENCES

- Bruner, J. 1966. *Toward a theory of instruction*. Cambridge, MA: The Belknap Press of Harvard University Press
- Council of Europe 2001. *Common European Framework of Reference for Languages*. Strasbourg: Language Policy Unit, Council of Europe
- Council of Europe 2018. *Common European Framework of Reference for Languages: Learning, Teaching, Assessment. Companion Volume of new descriptors*. Strasbourg: Council of Europe
- Damásio, A. & Damásio, H. 1997. Le cerveau et le langage. *Dossier pour la science*. 17. Pp 8 - 15
- Krashen, S. 1981. *Second language acquisition and second language learning*. Oxford: Pergamon Press
- Masson, S. 2015. En classe de neuroéducation. *Actualités UQAM*
- Paradis, M. 2004. *A Neurolinguistic Theory of Bilingualism*. Amsterdam: John Benjamins Publishing Company
- Paradis, M. 2009. *Declarative and Procedural Determinants of Second Languages*. Amsterdam: John Benjamins Publishing Company