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Plenary Speeches

The inseparability of cognition and emotion in second language learning

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The scholarly literature about the process of second language (L2) learning has focused to a considerable extent on cognitive processes. Left aside are questions about how emotions fit into an understanding of L2 learning. One goal of this plenary is to demonstrate that we have limited our understanding of L2 learning by failing to take into account the roles played by emotions. A perspective which brings together cognition and emotion is that of Vygotsky's sociocultural theory (SCT) of mind. Vygotsky saw the two as being inextricably interconnected. However, many in the Western world who have taken up Vygotsky's ideas, myself included, have focused on the cognitive side of learning and development. The second goal of this plenary is therefore to redress this imbalance.

Today I want to talk about something that each of us already knows: that learning another language is not just a cognitive process but an emotional one as well. Emotions are like 'the elephant in the room'. Everyone is aware of them but they reflect an unspoken truth: that they have a significant impact on what has happened in the past, what is happening now, and what will happen in the future. In fact, emotions are an integral part of cognition. My talk will, I hope, begin to expose the elephant in the (language learning) room, and perhaps get us thinking about emotions in new and different ways.

The first part of this talk discusses why cognition and emotions have historically been separated. The second part shows how a seemingly simple interaction between two learners can be interpreted from a cognitive or a cognitive/emotion perspective, and the importance of each interpretive lens. The third part discusses briefly the implications for teachers.

Here are some of the points I would like to make during the talk:

1. Emotions[1] have, in general, been neglected in the SLA literature[2]. In fact, a recent edited book on *Emotion in education* opened with the sentence: 'In spite of the emotional nature of classrooms, inquiry on emotions in educational contexts, outside of a few notable exceptions . . . has been slow to emerge' (Schutz & Pekrun 2007: 3).

Revised version of a plenary address given at the 2010 CLESOL Conference, Dunedin, New Zealand, 4 October 2010.
[1] Emotions and motivation are both related to affect. This paper focuses on emotions, leaving their relationship with motivation unexplored.
[2] But see, for example, Pavlenko (2005; 2006); Schumann (1997).

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2. The relationship between cognition and emotion is, minimally, interdependent; maximally, they are inseparable/integrated.
3. Emotions tend to be viewed as the private, inner reactions of an individual. I will argue for a different perspective: that emotions are interpersonal, not private (intrapsychic) events. Emotions are socially and culturally derived and, along with cognition, they mediate learning.
4. Emotions may be co-constructed as an event progresses.

It is in narratives – anecdotes and stories of learners' experiences – that the centrality of emotion and its connections to cognition becomes evident. For example, consider this excerpt from a story told by Grace, a Greek–English bilingual. At the time of telling, Grace was in her early 50s, but one of the incidents she related took place when she was about eight years old. Her teacher had just shown a picture and asked the class what sort of thing the people in the picture were eating. Eight-year-old Grace said, 'They're eating salad.' 'And what sort of things do you put in a salad?' asked the teacher.

> I was all excited and I said 'aggouri' and she said 'What?' and everyone started laughing and I realized I didn't know the English name for cucumber. I went home crying. It was so embarrassing. I was just very mortified. (Swain, Kinnear & Steinman 2011: 77)

Grace went on to say that as a result of that incident, she went to the supermarket with her mother and made sure to learn the name and correct pronunciation of 'cucumber' and other similar items. (See Swain et al. (2011) for the rest of Grace's story, and an analysis of it.)

And consider this declaration made by Ariel Dorfman in his well-known autobiography: 'I did it [I learned Spanish] to spite the Chilean woman principal who didn't think a gringo kid could be worthy of her school' (1998: 109). What had happened was that Dorfman's parents, on arriving in Chile from the United States, had tried to enroll him in an experimental public high school in Santiago. The principal was reluctant to admit him, and used Dorfman's inability to speak Spanish as an excuse to put off his admission to her school. At the time, Dorfman was only 12 years old, but he felt the principal's strong animosity toward him, and as he said, he learned Spanish to spite her.

These two examples of Grace and Ariel Dorfman – and there are as many more as there are learners of languages – highlight the fact that emotions cannot be ignored in understanding language learning processes. In these examples, the evidence of the centrality of emotions is overwhelming, yet over the last several decades of SLA theorizing and research, emotion and cognition have been studied separately, and cognition has been prioritized. By cognition I mean things like thinking, knowing, representing knowledge, attending, processing information, reasoning, problem-solving and decision-making, each studied as an aspect of the process of language learning. Why has cognition been so prioritized? Or to ask the question another way, why have emotions been so ignored? There are many explanations, and I am going to outline one that I think is among the most important.

One of the most important explanations for the prioritization of cognition over emotion takes us as far back as Socrates, who has had an immense influence on Western thinking. Socrates emphasized the pursuit of reason. But he was forced to recognize the existence of emotions and their often negative relation with reason. His thinking was the germ that

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led to a perceived conflict between the two. This separation and conflict between reason and emotion was more forcefully developed during the Age of Reason by Descartes in the seventeenth century and again during the Enlightenment. As the psychologists Paul Schutz and Jessica DeCuir write:

> This view placed emotions in an inferior role, describing them as 'more primitive, less intelligent, more bestial, less dependable, and more dangerous than reason' (Solomon1993: 3). Even today we make distinctions between cognition and emotion in the U.S. legal system such that crimes of passion (i.e., resulting from emotions) are dealt with less severely than crimes where premeditation (i.e., reason) is believed to be involved (Ratner 2000). This uneasy relation between reason and emotions provides the social-historical back drop from which current views on emotions continue to emerge. (Schutz & DeCuir 2002: 127)

In general, then, the birth of rationalism separated cognition from emotion and set them in conflict. Two additional factors also help to explain why cognition has been prioritized specifically in the SLA literature. One is related to the measurement of emotions. Precisely what is an emotion and how is it to be measured in a reliable way? In general, SLA theorists and researchers have recognized the role of emotions as variables that are inherent within the individual learner. One reads about these variables in the literature on individual differences, where emotions are measured and related causally to success or failure in language learning (e.g. Skehan 1989). In the individual differences literature in SLA, emotions are seen as the independent (causal) variables and language learning is dependent on them. In other words, emotions influence language learning, and the reverse relationship, that language learning may influence emotions, is rarely considered.

For example, an individual's level of anxiety – related to such emotions as fear, frustration and apprehension – is seen as a measurable variable which causes failure in learning a target language. In the SLA research, perhaps because anxiety has been seen to be more readily measurable than other emotions, there is a large and significant literature on foreign language anxiety (e.g. Horwitz, Horwitz & Cope 1986; MacIntyre 2002) and its impact on language learning. Many other emotions, such as enjoyment, relief, happiness, excitement, envy, admiration, hope, surprise, pride, gratitude, jealousy, love, hate, guilt, disgust, shame and boredom have been sidelined because they are harder to define and measure (Imai 2010).

The second explanation as to why cognition has been emphasized in the study of L2 acquisition is that SLA, as a field, began in the late 60s and early 70s. Its precursors, behaviorism (in psychology) and structuralism (in linguistics) did not show any concern for emotions, including those involved in language teaching (e.g. Lado 1964). Chomsky (1959) had arrived on the scene with a scathing review of behaviorism. Chomsky's response to behaviorism was innatist and cognitivist, and SLA was very much influenced by Chomsky's arguments. As a result, SLA researchers began to look for sequences in language development that were universal, and began to search for underlying processes (that were also thought to be universal). In the introduction to the 888-page *Handbook of second language acquisition*, the editors, Doughty & Long, wrote:

> Performance data are inevitably the researchers' mainstay, but understanding underlying competence, not the external verbal behavior that depends on competence, is the ultimate goal . . . As such, research on SLA is increasingly viewed as a branch of cognitive science. (Doughty & Long 2003: 4)

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Emotions do not fit into this picture! In a somewhat revolutionary argument for the time, Krashen (1985), theorizing about the input hypothesis, proposed the existence of an affective filter. The affective filter was a fairly simple mechanism though: positive emotions were related to a low affective filter, thereby letting in more input, meaning that more learning would occur; negative emotions were related to a high affective filter, thereby keeping out input, meaning that less learning would occur. But think about the Grace and Dorfman examples. Grace's embarrassment and mortification and Ariel Dorfman's anger make it abundantly clear that the story is not as simple as the affective filter hypothesis would have us believe. The emotions Grace and Ariel experienced were not positive ones, yet they were related to the eventual attainment of high levels of proficiency in their target language. They did not learn in spite of these negative emotions; they learned BECAUSE of them.

I have now outlined for you some of the reasons that even though you know: 1) that emotions play an important role in our teaching/learning lives; and 2) that language learning is fraught with emotions, the study of SLA has been dominated by a paradigm that emphasizes cognition at the expense of emotions.

At this point, I would like to shift gears and focus on a short dialogue between Sophie and Rachel, who were two young learners of L2 French in the eighth grade of an early French immersion program. (For definitions of immersion programs, see Swain & Johnson 1997.) By focusing on this nine-turn dialogue, we will see how different theoretical perspectives affect how we interpret language learning processes. You might think of this as 'my story', as I will be telling you about how a shift in my own perspective, occurring slowly over more than a decade, has helped me to see more and more in this short dialogue. This story covers a paradigm shift from the output hypothesis (an information-processing, cognitive perspective) to a Vygotskian sociocultural theoretical (SCT) perspective. In effect, sociocultural theory provided a new lens for me to re-cognize (recognize) what is happening in this dialogue. For those of you who are not familiar with SCT, I will be saying more about it in this talk.

First, however, I need to give you some background to Sophie and Rachel's dialogue. The teacher, Maria Kowal, had given a dictogloss task to the students in her class. A dictogloss task is a passage that includes a particular grammatical structure that the teacher wishes to focus on. Usually the teacher reads the passage twice, out loud, and at a normal speed. As they listen, students jot down notes of what they hear, and then they are asked to reconstruct the passage as closely as possible to the original (Wajnryb 1990). In Maria's class, she had her students work together in pairs to reconstruct the passage. The particular passage that the students heard that day was related to their ongoing curriculum in environmental studies.

I am going to be interpreting this dialogue through four different lenses.

- The first lens is through a cognitive perspective, that of the output hypothesis (Swain 1995; 2005).

The next three lenses are through a sociocultural perspective, specifically a Vygotskian sociocultural theory (SCT) of mind perspective.

- The second lens focuses on collaborative dialogue (Swain 2000).

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- The third lens is also through a sociocultural perspective, but distinguishes between private speech and social speech (Swain, Kinnear & Steinman 2011).
- And the fourth interpretative lens adds in emotions from an SCT perspective.

I do not think any one of these interpretations is better than another; they are different and each has a focus and purpose that is relevant to language learning and teaching. However, by presenting them in the way that I do, I intend to show that each adds to and, I believe, enriches the previous interpretation.

Back in 1997, Maria and I (Kowal & Swain 1997) published a paper about the sorts of language learning processes seen in the dialogue of her students as they worked in pairs reconstructing dictogloss passages.

The theoretical framework which guided our interpretation was the Output Hypothesis (Swain 1995), a hypothesis embedded in the cognitive, information-processing theory of the day. The output hypothesis claims that the very act of producing language leads students to notice gaps in their L2 knowledge, which in turn leads learners to, for example, formulate and test hypotheses, and reflect on the language they have produced.

In the dictogloss that Sophie and Rachel listened to, they heard the phrase *de nouveaux problèmes* 'some new problems', which was about new problems affecting the environment. Here is an excerpt from the dialogue that took place as Sophie and Rachel reconstructed the phrase *de nouveaux problèmes.*

1 Rachel: des nouveaux menaces [*some new threats*][3].
2 Sophie: Good one! {congratulating Rachel on finding a synonym for 'problèmes'}
3 Rachel: Yeah, nouveaux, des nouveaux, de nouveaux. Is it des nouveaux or de nouveaux?
4 Sophie: Des nouveaux or des nouvelles?
5 Rachel: Nou . . . des nou . . . de nou
6 Sophie: It's menace, un menace, une menace, un menace, une menace. Ay ay ay!
7 Rachel: Je vais le pauser [*I'm going to pause it*]{i.e. the tape-recorder} {Sophie and Rachel look up 'menace' in the dictionary}
8 Sophie: C'est des nouvelles!
9 Rachel: C'est féminin . . . des nouvelles menaces.

As we can see, Rachel suggests using *menaces* 'threats' for *problèmes*. Sophie, in turn 2, congratulates her on this good idea.

Here we see what happens when Sophie and Rachel 'notice the gap'. As soon as Rachel suggests substituting *menaces* for *problèmes,* they notice things they do not know, and start to fill the gaps in their knowledge. By producing *des nouveaux menaces*, Rachel creates a phrase, an artifact, that they both can now reflect on. Their reflection includes making hypotheses and testing them out.

Wondering if the partitive *des* she has produced is correct, Rachel verbalizes some possibilities out loud to see what 'sounds right' (Swain & Lapkin 1995). Then she asks explicitly: 'Is it *des nouveaux* or *de nouveaux*?', debating between two forms of the partitive (turn 3). She continues

[3] Transcription conventions: [*italics*] = translation; {regular script} = transcriber's comments.

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to test out her hypothesis in turn 5, '*nou* . . . *des nou* . . . *de nou*'. (It should be *de* because the partitive *des* is reduced to *de* in front of an adjective + noun construction (Grevisse 1980: 353)).

In the meantime, Sophie is preoccupied with the gender of the new noun (*menaces)* that her partner has suggested. In turns 4 and 6, Sophie also tries out masculine and feminine alternatives for that noun.

The two students finally consult the dictionary and find that *menaces* is feminine. They then engage in metalinguistic reflection, pondering the implications of their finding. The feminine noun requires the accompanying adjective to be feminine also, in this case, *nouvelles*. Sophie provides this form in turn 8 and Rachel confirms Sophie's selection in turn 9, justifying it by specifying that *menaces* is a feminine noun. The issue of the partitive is laid aside for now, though they do end up returning to it later.

Kowal & Swain (1997) analyzed the same episode and other related data, concluding that producing language leads to a set of actions which leads to language learning. I am still very fond of this interpretation.

And like the three following interpretations, the implication for language teaching is that language production – the act of verbalizing – is critical in the process of language learning, not just as practice, but because when students notice a gap(s) in their knowledge, they often work towards filling it. It is important, therefore, that we give our students multiple opportunities to produce language, written or spoken.

Now, let us look at this same dialogue, but through SCT eyes. Importantly, the claim that language production is important for language learning is made much stronger. The argument escalates from language production 'leads to learning' to language production 'mediates language learning', and so it IS learning. Also, the focus shifts from the functions of language, such as hypothesis testing, to focusing on a goal-oriented, tool-mediated activity.

Three years after Maria and I published our output analysis, I re-examined the Sophie and Rachel dialogue within a Vygotskian sociocultural theoretical framework, focusing particularly on the concept of collaborative dialogue: 'dialogue in which speakers are engaged in problem solving and knowledge building' (Swain 2000: 102). This differed considerably from Pica's (1994) notion of 'negotiation for meaning' that occurs when learners have difficulty in understanding messages. Pica suggests that learners achieve comprehension as messages are repeated and rephrased by the interlocutors who are negotiating for meaning. This interaction leads to learning the L2 because the input has been made more comprehensible (Krashen 1985).

The construct of collaborative dialogue does not place the emphasis on making the message more comprehensible, but on building on what each interlocutor has contributed to the creation of new knowledge and problem solving. Sophie and Rachel's interaction was not based on misunderstanding each other but on identifying linguistic problems and seeking solutions. 'Their output, in the form of collaborative dialogue, mediated their knowledge building and problem solving' (Swain et al. 2011: 41). What we observed in Sophie and Rachel's dialogue did not lead to language learning: it CONSTITUTED language learning in progress. We were observing what Vygotsky called microgenesis – the process, at a micro level, of acquiring an aspect of the L2. (See also Gutiérrez 2008.)

This interpretation is based entirely on Vygotsky's (1978) idea that the source of higher mental processes and functioning is social. For example, during a child's development,

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language and the ways it is used with the child, and in the child's environment, are internalized to become psychological tools for self-regulation and mental functioning in general. Here Sophie and Rachel are using language as psychological tools to mediate their understanding and to construct knowledge about their L2. What each says is simultaneously both process and product. The process of saying is a cognitive action, creating a product, an artifact, for further contemplation. Through further contemplation, knowledge is built. This knowledge building is language learning. Collaborative dialogue mediates this process. What we see here in Sophie and Rachel's interaction as they participate in problem solving are cognitive processes constituted in, and derived from, dialogue (Donato & Lantolf 1990). In other words, in SCT terms, the learners are engaged in a goal-directed, tool-mediated activity. The tool which mediated their learning was their collaborative dialogue, and their goal was to reconstruct the dictogloss in a way that was useful for them.

Now, in 2010, I still consider this to be a satisfying interpretation – that Sophie and Rachel's collaborative dialogue mediated their problem solving and knowledge construction. For teachers, one implication is that if you listen to your students' dialogue, you will learn a lot about how they are processing the tasks you give them. A careful listen will indicate if and how your students are learning the target language, and what sorts of things about language they need to know to develop further.

This last year, I began to think again about this dialogue because my research (e.g. Swain et al. 2009) has led me to think more and more about the role of private speech in learning in general, and in language learning, specifically. This thinking takes us to the third interpretation.

In fact, when we take another look at this dialogue, it seems that some of what Sophie and Rachel say is more for themselves than for the other. Indeed, I now think what Sophie and Rachel each engage in – Rachel in turns 3 and 5; Sophie in turns 4 and 6 – is private speech, that is, speech for themselves. Their private speech occurs within a collaborative frame they have already established.

Like collaborative dialogue, private speech mediates thinking processes. Private speech is speech for the self (Lantolf 2000); it is a cognitive tool helping to structure and organize our thinking. Private speech has been defined as: 'that form of externalized speech deployed by adults to regulate their own mental (and possibly physical) activity' (Lantolf & Thorne 2006: 75); self-talk (Vocate 1994); and intrapersonal communication (Lantolf & Thorne 2006).

Private speech is central to Vygotsky's (1978; 1987) sociocultural theory of mind. In his theory, language is 'the most crucial mediating artifact in the creation and functioning of higher mental processes' (Swain et al. 2011: 37). Private speech has its source in speech by and with others. From a developmental point of view, Vygotsky claimed that 'speech for the self goes "underground" to become inner speech. On its way to being transformed into inner speech (pure meaning), it is abbreviated, agglutinated and fragmented' (Swain et al. 2011: 39). This inner speech often surfaces as private speech when a person faces a complex problem and tries to regain control of his or her cognitive activity by focusing attention on key features of the problem, planning how to solve it, evaluating solutions, and so forth. Without language we could not carry out these mental activities.

Having suggested *menaces* as a synonym for *problèmes*, Rachel and Sophie each follow their own agenda. Each student is speaking to herself, engaging in private speech, even though

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each of them spoke aloud. Although they are working together, each focuses on one issue: Rachel on the form the partitive should take (turns 3 and 5), and Sophie on the correct form of the adjective (turns 4 and 6).

When Rachel asks (turn 3) 'Is it *des nouveaux* or *de nouveaux*?', this question is really for herself, not for Sophie. Consistent with this are two facts: first, Sophie does not respond, and second, Rachel uses abbreviated speech in turn 5, failing to complete the word *nouveaux*. Her private speech focuses her attention on *de* versus *des*; her only intended audience is herself.

Similarly, in turn 4, Sophie asks: '*des nouveaux* or *des nouvelles*?' Is this question addressed to Rachel or to herself? In effect, it is addressed to herself as Rachel is preoccupied with the correct form of the partitive. Sophie tries to answer her own question as she decides between masculine and feminine for *menaces* by repeating the noun with both masculine and feminine articles until one alternative sounds right to her.

In the final two turns of the dialogue, Sophie and Rachel emerge from their private worlds and together they consolidate their new knowledge: they provide the correct form *nouvelles*, explaining that the adjective is *féminin* and come up with the complete phrase *des nouvelles menaces*.

Both private speech and collaborative dialogue are important cognitive tools. Collaborative dialogue and private speech are what I have referred to recently as 'languaging' (e.g. Swain 2006; 2010). Languaging is what mediates our thinking. It is a psychological tool by which we internalize new ideas and talk ourselves into understanding something we did not understand before. This is why it is so important to give students of all ages the opportunity to engage in collaborative and private talk.

Let us take one last look at Sophie and Rachel's dialogue. Why? Because I now have my SCT eyes open even wider. The interpretation that has been given to Vygotsky's thinking and writing in North America since its arrival from Russia is much like what I have given you in the second and third interpretations – a cognitive-based interpretation, for the reasons I gave you at the beginning of this talk. However, as more and more of Vygotsky's writings become available, and as the elephant in the room stands up and demands a hearing, a few are listening. Vygotsky made it clear that he saw emotions as having a critical role in human mental functioning. He referred to 'the existence of a dynamic system of meaning in which the affective and intellectual unite' (2000: 10).

Let us look again at the same dialogue. In turn 1, I see[4] self-pride; in turn 2, I see pleasure, pride and admiration. During turns 3–6, I see trust in each other as each works on her own – trust that each is staying on task and moving it forward. In turn 6, Sophie is frustrated (perhaps an ideal 'teaching moment'). Turn 8 exudes excitement, exhilaration, joy. And in turn 9, a sense of satisfaction is apparent. One might refer to the combined effect as confidence (Mahn & John-Steiner 2002). You may wish to label the emotions somewhat differently than I have, or than Sophie and Rachel might have, but the point is they are totally intertwined with what so far we have been talking about as cognitive processes constituted in, and derived from, the dialogue. Looking at this dialogue now, it seems to me that it is more accurate to suggest that what we are seeing (better if we could hear it), are cognitive AND emotional processes constituted in, and derived from, the dialogue.

[4] Unfortunately, I now only have access to the transcripts on which to base these interpretations.

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Adding an emotional lens to interpret Sophie and Rachel's dialogue helps us understand why they work together so well: they respect each other, are proud of their accomplishments, take pleasure in their accomplishments, and trust each other that they are working towards the same goal, which while being attained creates frustration, excitement, even joy, followed by satisfaction.

In other words, Sophie and Rachel's languaging mediates the co-construction of a cognitively permeated set of emotional processes; or is it, perhaps, an emotionally permeated set of cognitive processes? The point, I think, is that it is both.

Here, we are seeing emotions in real time. We are seeing the co-constructed creation of emotions in dialogue as this is interwoven with the collaborative thinking process. Emotions are socially constructed in dialogue, and those emotions mediate learning outcomes (see also Imai 2010).

As we have already seen, Vygotsky (2000: 10) referred to 'the existence of a dynamic system of meaning in which the affective and intellectual unite'. Del Rio & Alvarez (2002: 65) suggested that cognition and emotion 'may unite and enhance each other to yield an outcome greater than either of them alone'. I think that is what we are seeing in Rachel and Sophie's short dialogue, a unity of cognition and emotion that helps us to understand how, and why, Rachel and Sophie together were successful language learners; a unity that is based on their past experiences, their individual histories – a point I will return to shortly below.

Fascinatingly, recent neuroscience research using fMRI's of the brain suggest 'an integration of emotion and cognition in brain functional organization'. By 'integration', the authors mean that 'emotion and cognition can conjointly and equally contribute to the control of thought, affect and behaviour' (Gray, Braver & Raichle 2002: 4115). In a 2009 review of the neuroscience literature examining the relationship between cognition and emotion, Pessoa suggests that these quite specific findings 'may aptly characterize a vast array of real-world situations'.

> In other words, whereas many behaviors may be reasonably well characterized in terms of cognitive-emotional interactions such that emotion and cognition are partly separable, in many situations, true integration of emotion and cognition may also take place. (Pessoa 2009: 12)

Vygotsky (1987) provided a wonderful example from the physical sciences that can help us understand the implications of thinking about emotions and cognition as separate and distinct, rather than as an intertwined unity. Vygotsky pointed out that one cannot understand how water extinguishes fire by deconstructing it into its elements of hydrogen and oxygen. The element of oxygen, after all, supports fire rather than destroys it. It is the unity of oxygen and hydrogen that must be examined in order to understand its ability to extinguish a fire. And, for Rachel and Sophie, Grace, and Ariel Dorfman, it is the integration of cognition and emotion that will help us understand their language learning trajectories: why in their cases, each eventually attained high levels of proficiency in their L2, even though for Grace and Ariel, negative emotions were strongly implicated.

Until now I have been looking at cognition and emotion at a microgenetic level. We need to step back from this discussion for a minute and look at the ontogenetic level, that is, at the level of the development of an individual over a life span, and ask how it is that Sophie

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and Rachel come to be able to co-construct their emotions in real time. I think that a likely explanation is similar to Vygotsky's (1978; 1987) explanation for the development of higher mental processes. The physiology of many emotions is biological, but what the physiology means, how it is interpreted, is cultural. In that sense, the source of emotional meaning is social and cultural in the same way cognition is. We internalize emotional meaning from our interactions with others. For example, Harter & Whitesell (1989) showed how 'children's first ideas of pride and shame depended on other people being proud or ashamed of them, and only later were they able to apply the emotional concepts to themselves' (cited in Parkinson 1996: 680). As with cognitive processes, languaging can play a critical role in the internalization of emotions and their cultural meanings.

As for cultural meanings, consider how some of the things we become emotional about depend on, for example, culturally imbued goals such as money, reputation and independence (Parkinson 1996). And consider that how we define and enact particular emotions (e.g. anger) depends on 'different conventions about the appropriateness of different emotions' (Parkinson 1996: 666). We come to know these aspects of emotion from our sociocultural world, and it is through language that much of this knowledge is internalized. Internalized, they become psychological tools which mediate our behavior. The effects of a learner's previous experience may show up immediately or much later in life.

We can take yet one more step back from this discussion, and consider the sociocultural history that provides the broader context in which the interplay of cognition and emotion play out. I would like to go back to Ariel Dorfman's narrative to illustrate what I mean. Remember, Ariel felt intense animosity towards him on the part of the principal of the school his parents were trying to enroll him in, and he vowed to learn Spanish, in part at least, because of her. The emotions he felt were social and interpersonal. His feelings were strongly influenced by those of the principal. But at the time, he did not understand what was mediating her behavior. Dorfman writes:

> . . . I had no way at that time of grasping its dimension [the dimensions of her animosity] . . . [I did not have] enough knowledge of Chile to realize that many people [t]here – particularly among the intellectual elite – begrudged and even hated the United States, blaming it for their country's poverty and backwardness. . . . how was I to guess, sitting there as the icy strutting resentment of the principal glazed over me, how was I to know that I was being categorized as a representative of the North, of the gringos who had come down to Chile and taken over the economy, who owned the copper mines and the banks and the major industries and the foreign policy and the steamships. (Dorfman 1998: 104)

I give this last example to demonstrate how important it is to consider the broader sociocultural-historical context in order to understand the power of an internalized emotional/cognitive unity in mediating current behavior in locally situated contexts. In other words, the broader socio-historical context very much determined the emotions which mediated the principal's reaction to Dorfman in their encounter in her office. The example also makes clear that emotions are derived from social and interpersonal events.

As teachers we need to reflect on what is mediating our own emotional responses to students, and what is mediating students' responses to us, and to the activities we give them. It helps to explain why students will respond to the same activity in dramatically different ways, some happily taking on what the teacher requests, as with Sophie and Rachel; some,

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like Grace, out of embarrassment and mortification, learn in order to avoid other similar situations; and some, like Ariel Dorfman, who for broader social and political reasons, defy the animosity directed towards them.

What are the implications of what I have said for teachers of community languages and of ESL?

First, I want to say what the implications are not. I am not saying that positive emotions have to be present for learning to occur. The Ariel Dorfman and Grace stories make that quite clear. As we saw, Krashen's affective filter is a simple mechanism, but the stories of Ariel and Grace demonstrated that, when it comes to the relationship between emotions and learning, they are linked and united in a complex process of internalization over time, and come to mediate learning in current, local, contexts.

Indeed, Vygotsky said, 'Without struggle, there is no learning'. Language learning is not just a cognitive struggle, it is a cognitive and emotional struggle.

Here are five ideas that I hope you will take away with you. I am prepared to predict that your reflections on them will be an inseparable blend of emotions and thought.

1. Thoughts and emotions come into expression through languaging (collaborative dialogue and private speech). This means that we have access to the emotional/cognitive landscape of our students. As teachers, we can have this access by listening, really listening, to our students. Teachers need to listen to learners' struggling to help them achieve their goals.
2. The point of listening to our students is not to change their emotions, but to recognize them and use them to help us understand when – and how – it is appropriate to intervene. Teachers will hear collaborative dialogue and private speech which may offer them insights into what learners know and what they do not know, what they want and do not want to know, and what they need to know to move forward developmentally. An important consequence for teachers of listening to their students as they struggle to accomplish classroom activities is that, at the same time, the teachers may learn about their students' affective reactions and cognitive challenges. Sophie's 'ay, ay, ay' is a good clue that this might be a teachable moment, or an opportunity for guidance.
3. The negative expression of emotion often signals conflict, and it is by talking as a means of managing conflict, and by talking about the substantive sources of conflict, that insight and understanding most often occur. As we have seen, talking it through – languaging – pulls together emotional and cognitive resources which mediate learning. Providing opportunities for students to reflect on conflicts by writing or talking about them may guide them towards a useful understanding of their own learning process.
4. As we saw, emotions are the elephants in the room – poorly studied, poorly understood, seen as inferior to rational thought. In this talk, I have tried to show that by separating cognition and emotion, and sidelining emotions, we lose the possibility of understanding what makes our students tick. Fostering a space and time for affect in one's teaching is both possible and desirable. Giving attention to students' affective/intellectual expression can be achieved by consciously including this dimension as a goal in the design of collaborative learning tasks.
5. And finally, the teaching of emotional expression, including the social and cultural conventions of emotional expression, is also often ignored or sidelined in the teaching of an additional language. By teaching L2 emotional expression, linguistically and

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socioculturally, we may help our students to be able to use their L2 as tools for thinking and emoting.

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