Emotions, Language and their Use: Why language matters – a view from Psychology and Education

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Psychology has seen several turns and shifts in paradigms, many of which affected and still affect our understanding of emotions, language and their interactions. Recently embodiment theories and research on embodied cognition have refueled this discussion and this discussion has reached research areas with a traditional linguistic or cognitive theoretical orientation. This welcome note is aimed at providing an overview of past and current psychological theorising and its potential relevance of being considered within the scope of applied linguistics, SLA (second language learning) or education in an attempt to invite all the participants of the ERL conference VI for a joint discussion of the raised issues, of future trends and open questions in the Panel Discussion on day 2 of the ERL conference.

3. KEYNOTE SPEAKERS

Achievement Emotions: State of the Art, Challenges, and Future Directions

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Emotions are ubiquitous in educational settings. Students frequently experience achievement emotions such as enjoyment, hope, pride, anger, anxiety, shame, or boredom at school and university. These emotions can profoundly influence their learning, performance, identity, and health. Nevertheless, traditionally achievement emotions have not received much attention by educational scientists. Test anxiety studies were a notable exception. More recently, however, there has been an affective turn. Today achievement emotions are a hot topic in inquiry on education, including research on language learning. In this talk, I will provide a state-of-the-art overview of this emerging field of research. Using Pekrun's (2006, 2021) control-value theory as a conceptual framework, I will focus on the following issues. (1) Which emotions are experienced in academic settings, and how can they be measured? (2) Are achievement emotions functionally important for learning, achievement, and health? Test anxiety research has shown that anxiety can exert profound effects on performance; is this true for other achievement emotions as well? (3) How can we explain the development of these emotions, what are their individual and social origins? (4) Are achievement emotions universal, or do they differ between domains, genders, and cultures? (5) How can achievement emotions be regulated, and how can we design educational practices at school and university in emotionally sound ways? In closing, I will address open research problems, including the development of more sophisticated measures; strategies to integrate idiographic and nomothetic methodologies; and the need for educational intervention studies targeting achievement emotions and related change in educational policies and practices.

Bilingualism as a lens to the mind and the brain

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In the last two decades there has been an upsurge of research on the bilingual mind and brain. Although the world is multilingual, only recently have cognitive and language scientists come to see that the use of two or more languages provides a unique lens to examine neural plasticity across the lifespan. It is now accepted that the bilingual's two languages are continually active, creating a dynamic interplay between them. But there continues to be controversy about the consequences of bilingualism for cognition and for the neural mechanisms that support attention and executive function. In the earliest months of life, minds and brains are tuned differently when exposed to more than one language from birth. That tuning has been hypothesized to open the speech system to new learning. For young adults, there is evidence that bilingualism creates greater efficiency in resolving conflict. For the oldest bilingual adults, there is evidence that a life of being bilingual confers protections against cognitive decline. In this talk, I describe research that begins to identify those aspects of bilingual language experience that may produce the observed consequences. An important observation in recent studies is that the minds and brains of bilinguals are inherently complex, social, and emotional, taking into account the variation in contexts in which the two languages are learned and used, and shaping the dynamics of cross-language exchange across the lifespan.

Holistic approaches to the study of emotions and identity in language learning and use

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In the field of English applied linguistics, learners and their learning processes including their psychological and emotional responses to second language acquisition (SLA) were traditionally researched in isolation following the psychometric tradition. By contrast, learners' idiosyncratic, and often life-changing experiences, that shape their identities are usually examined holistically drawing on interview and case studies. In my talk, I will bring under the same roof these two seemingly incompatible research traditions to shed light on language learners' multilingual (and multicultural) identity construction. The talk will draw on the basic tenets that language and culture are inherently intertwined in SLA and that language learning is embodied triggering powerful emotional responses to language learning and use. Then, I will discuss three holistic approaches to examining learners and their various responses to SLA including language ecology, complex dynamic systems theory (CDST), and post-structuralism. These approaches have three important principles in common. (1) They look at learners holistically in their complexity and entirety. (2) They perceive learner-intrinsic and contextual factors as interconnected, dynamic, and changing over time. (3) They examine learners and their learning processes in response to environmental stimuli in the form of other individuals (e.g., other learners and teachers), learning materials, different languages, the learning environment, the educational context, and the socio-cultural environment. I will also present my latest research results drawing on these theories. I will explain how I conceptualize language learners' identity construction as a complex dynamic system of individual differences and how fundamental features of complex dynamic systems can be detected in learners' psychological responses to language use. Finally, I will present examples of powerful emotional responses to language learning and use, the transformative potential of SLA, and the language learner's imagined L2 habitus pinpointing how learners speak, think, and behave differently when they switch to the different languages they speak.

Emotional content and psychological context in language perception and memory: Lessons from neuroscience studies

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Much of human learning, including language learning, occurs via explicit instruction in formal social settings. This is a complex, multifactorial process, making generalization from experimental laboratory studies using neuroscience measures to classroom settings difficult. Still, some general principles identified in the experimental laboratory are likely to hold up in the real world. In this talk, I will present some such evidence, demonstrating how emotional content guides attention and memory in word processing. Furthermore, I will show how this is modulated by the psychological context in which words are encountered. Perceived psychological context is often sufficient to not only accelerate and increase brain activity in language processing, changes in context can also result in a substantial change in the brain structures that are recruited. Remarkably, even without a learning instruction, contextually induced psychological relevance can improve long-term memory for words more than an explicit learning instruction does. However, in a typical paired-associate learning set-up, which essentially resembles textbook-based vocabulary learning, emotional content is not acquired faster than neutral content. Together, these studies indicate substantial benefits of emotion in language learning, which should be considered in formal contexts, while also pointing to some limitations.

Grounding of concrete and abstract concepts in brain systems related to perception, action and introspection

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Classical models assume that conceptual knowledge is represented in an amodal format distinct from the sensory-motor and introspective systems. More recent grounded cognition models, however, propose that concepts are embodied in the sense that interactions with the environment form their conceptual memory traces in distributed sensory, action-related or introspective modality-specific brain systems. In neurophysiological experiments, we demonstrate that access to concepts involves a partial reinstatement of brain activity during the perception of objects, the execution of motor actions and the introspection of emotions, mental states and social constellations. We observed an involvement of such experiential brain systems not only in object concepts (e.g., table), but also in abstract everyday concepts (e.g. justice) and in abstract scientific psychological concepts (e.g. conditioning). For abstract concepts, modality-specific brain systems related to the introspection of emotions, mental states and social constellations played a particular role. Both training studies with novel concepts and studies with real concrete and abstract concepts in experts vs. novices revealed experience-dependent brain activity. A conceptual task activated a given modality-specific experiential brain area only when participants had rich interaction experiences with the referent. These findings support the view that both concrete and abstract concepts are grounded in experiential brain systems related to perception, action and introspection as a function of the interaction experience during concept acquisition.