Every utterance is partially ambiguous. The acoustic input is variable and the fact that speech unfolds over time creates short periods where there is not sufficient information to recognize a word, or categorize a phoneme. Skilled listeners deploy complex processes that unfold over milliseconds to solve these problems and map incoming speech to meaning. However, work on language development and developmental language disorders often ignores this in favor of a focus on whether children have the right language “knowledge”. Similarly, work on hearing impairment often focuses on the peripheral input without considering the cognitive mechanisms of coping with ambiguity. Yet the inherent ambiguity of language suggests that language knowledge and signal quality are not sufficient to explain skilled communication. Thus, the limiting factor may not be whether or not a person “knows” or can precisely encode a given word, but whether they can recognize and use it in the moment. This talk examines these issues in the context of lexical and phonological processing. I present research using the visual world paradigm – an eye-tracking paradigm that tracks how strongly listeners consider possible interpretations of a spoken word as it unfolds over time. This work show that even in typical children, when viewed from the lens of real-time processing, speech perception and spoken word recognition develop late – through adolescence. I also present research on Developmental Language Disorder (DLD) demonstrating that qualitative differences in real-time lexical processing. And I show that children and adults who use Cochlear Implants have further differences in real-time lexical processing. I end with a speculative discussion of potential mechanisms for these developmental changes, mechanisms like tuning of inhibition that may have implications for remediation. As a whole this work argues that accurate language processing is not simply a matter of having a clear input and the right knowledge – listeners must develop and adapt real-time processing skills for coping with ambiguity.