Theoretical accounts of autism have included the weak central coherence theory, executive dysfunction hypothesis, and theory of mind hypothesis, with more contemporary accounts consisting of multiple-deficit (rather than single-deficit) models that take development into consideration (Pellicano, 2011). Drawing on this conceptual backdrop, ongoing work in my lab is assessing assumptions of the weak central coherence and executive function accounts with respect to language phenotypes of children with autism spectrum disorders (ASD). Language and communication deficits are one of the hallmarks of ASD and early language abilities have been shown to be important for predicting broader outcomes for children on the autism spectrum. According to the weak central coherence theory, ASD is characterized by a cognitive style in which there is a bias towards low-level perceptual processing which may compromise higher-level global processing. Results will be presented from a study that employed an implicit eye-gaze paradigm to assess real-time word recognition in toddlers with ASD, compared to toddlers with typical development. In this study we contrast the influence of perceptually-similar versus semantically-similar distracters on word recognition. Limited evidence for weak central coherence in the group with ASD was revealed. Findings from another line of research investigating the relation between executive function and language abilities in school-aged children will be reviewed. Executive function (EF) refers to deliberate, higher-level cognitive processes that control and regulate behavior, including processes such as inhibition, updating working memory, and task shifting. The importance of EF in social, emotional, and academic domains is well established but the role of EF in typical and atypical language development is underspecified. We examined performance of children with ASD, Specific Language Impairment, and typically developing children on various EF measures and a lexical decision task consisting of words with high versus low semantic network sizes, as well as nonwords. Results suggest that similar cognitive mechanisms underlie semantic processing across these groups.