**5月15日-18日学术讲座**

**地点：学院大会议室，如有变动届时再通知**

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| 讲座人 | 讲座时间 | 讲座内容 |
| Dr. Luke Plonsky 美国北亚利桑那大学英语系副教授。应用语言学，二语习得研究 | 5月15日16:00-18:005月16日12:00-14:00，16:00-18:00 | Talk 1Advancing quantitative methods in applied linguistics: p values, effect sizes, and reliabilityWorkshopApplying meta-analysis to the language sciences: A conceptual overviewTalk 2Show me the data! On the need for multivariate analyses and ‘open science’ practices in applied linguistics |
| 李少峰博士新西兰奥克兰大学应用语言学副教授应用语言学，二语习得 | 5月17日16:00-18:005月18日12:00-14:00 | Talk 1The Influence of Cognitive Aptitudes on L2 Interaction: A Meta-Analysis and a Narrative Review 认知能力与二语互动研究的元分析及叙述性总结 Talk 2The Associations Between Cognitive Aptitudes and the Timing of Form-Focused Instruction (语言认知能力和语法教学时机) |

**Abstracts**

**Luke Plonsky**

**Talk 1**

Advancing quantitative methods in applied linguistics: p values, effect sizes, and reliability

In recent years, applied linguists have (re-)considered and (re-)examined a wide range of methodological issues and practices. I view this move toward greater methodological awareness, described by Byrnes (2013) as the “methodological turn” (p. 825), as critical to our understanding of L2 learning and as an indicator of the field’s maturity. Signs of reform are everywhere from new journal guidelines (Norris, Plonsky, Ross, Schoonen, 2015) to graduate training (Loewen e al., 2014) to methodological syntheses that describe and evaluate research and reporting practices as a means to make empirically-grounded suggestions for future studies (e.g., Marsden et al., in press; Paquot & Plonsky, 2017). One strand of this movement has centered on the use and misuse of statistical techniques. A number of reports have demonstrated, for example, that quantitative research in applied linguistics relies heavily—almost exclusively—on a very small set of univariate and bivariate techniques, namely correlations, t-tests, and ANOVAs (see Gass, 2009; Plonsky, 2013). Such analyses, though not inherently problematic, are often misguided. For instance, researchers’ applications and interpretations of such tests generally distill continuous data and findings into a crude dichotomy of significant vs. non-significant. In the first part of this talk, I will outline some of the pitfalls associated with this approach. I will also propose alternatives which are both computationally simpler and often much more informative. In the second part of this talk, I make a case for closer consideration of another critical aspect of quantitative applied linguistics research: measurement error (i.e., reliability). More specifically, I present a large-scale meta-analysis of reliability estimates (internal consistency, interrater, intrarater) as reported in the field. I also explore heterogeneity in observed estimates as a function of different coefficients and of study and instrument features suggested to moderate them (e.g., Brown, 2014). In addition to raising researchers’ awareness of the need to report reliability and other psychometric features (see Norris & Ortega, 2012), I use these results to inform and encourage empirically-grounded interpretations of reliability relative to the larger field as well as to the substantive and methodological features particular to individual studies and subdomains.

**Workshop**

Applying meta-analysis to the language sciences: A conceptual overview

Research synthesis and meta-analysis (RS/MA) comprise a set of well-developed procedures for conducting comprehensive reviews of previous research. RS/MA also present a number of advantages over traditional narrative reviews, namely (a) greater systematicity and, therefore, (b) increased objectivity as well as (c) transparency with respect to the review process, leading to (d) replicability of reviews. Consequently, and following widespread application in fields such as education, psychology, and medicine, the use of meta-analytic techniques has grown dramatically in the language sciences and, most notably, in second-language research (Norris & Ortega, 2010; Oswald & Plonsky, 2010). Building on the momentum in this area, this talk will present an overview and applied introduction to the use of RS/MA that is both conceptual and practical in nature. I will begin by providing a rationale and brief history of the meta-analytic approach to secondary research in the language sciences. The discussion with then move on to a review of the major stages involved in conducting research syntheses and meta-analyses. These include: (a) defining the domain and searching for primary literature, (b) developing and implementing a coding scheme, (c) (meta-)analysis, and (d) interpreting results (i.e., effect sizes). At each stage, I describe a number of decision points made by the meta-analyst, which will be illustrated with examples drawn largely from the field of second language acquisition. I will conclude the talk by making a case a synthetic mindset and ethic at the primary as well as secondary levels of research, addressing various audiences including individual researchers, researcher trainers, journal reviewers, and editors.

**Talk 2**

Show me the data! On the need for multivariate analyses and ‘open science’ practices in applied linguistics

There is a growing body of evidence demonstrating numerous methodological and statistical infelicities in the language sciences and applied linguistics in particular. One such problem with our current approach is that the analyses we most commonly apply to our data are rarely able to account for the full set of variables or relationships relevant to a given study. In other words, the constructs and processes we are interested in—language use, learning, teaching, assessment, and so forth—are invariably multivariate in nature; and an understanding of the relationships between them often requires more comprehensive (e.g., multivariate) analyses (e.g., Brown, 2015). In this talk, I make a case for increased use of multivariate statistics in applied linguistics. The discussion will not be highly technical, and I will make use of a number of worked examples to illustrate the points being made. Complementary to this discussion, I will also provide an overview of one recent and very powerful, cross-disciplinary movement that is taking place, namely, ‘open science’. The rationale for this approach will be discussed and I will highlight several initiatives underway in applied linguistics that both benefit from and contribute to the movement, including the IRIS Database (iris-database.org; Marsden, Mackey, & Plonsky, 2016).

**补充阅读PDF**

**李少峰**

**The Influence of Cognitive Aptitudes on L2 Interaction: A Meta-Analysis and a Narrative Review 认知能力与二语互动研究的元分析及叙述性总结**

Current second language (L2) theories posit a central role for interaction in facilitating L2 development (Long, 2015) and the influence of cognitive variables on the effects of interaction (Robinson, 2011). This study reports a comprehensive synthesis of the research on the role of two cognitive variables—working memory and language aptitude—in mediating the process and product of L2 interaction. The process aspects refer to what happens during interaction, such as noticing the gap and modified output—features hypothesized to be conducive to learning; the product aspects pertain to the learning gains resulting from interactional treatments such as the effects of corrective feedback measured through pretests and posttests. This synthesis integrates meta-analysis and narrative review, using the former approach to aggregate quantitative results and the latter to report themes and patterns that emerged from studies whose results cannot be meta-analysed.

37 studies were retrieved. Regarding working memory, the results showed that (1) it had significant, albeit weak, associations with the effects of corrective feedback, (2) its associations with noticing the gap and producing modified output were variable and inconsistent, and (3) whereas phonological short-term memory may facilitate the development of oral ability, executive working memory may be essential for oral performance. Language aptitude was found to be a strong predictor of the effects of corrective feedback. However, similar to the pattern for working memory, language aptitude was significantly more correlated with the effects of explicit feedback than those of implicit feedback.

The weak effects of working memory are attributable to the domain-general nature of this cognitive device and the methodological inconsistency of the primary studies such as the diverse measures of noticing. The finding that both working memory and language aptitude are more heavily implicated in explicit than implicit treatments points to the need to explore implicit language learning abilities.

**The Associations Between Cognitive Aptitudes and the Timing of Form-Focused Instruction (语言认知能力和语法教学时机)**

Research on cognitive aptitudes primarily focuses on how predictive they are of learning outcomes regardless of instruction type (DeKeyser, 2012). However, of greater theoretical and pedagogical significance is the research on aptitude-treatment interaction (ATI), which investigates how different cognitive abilities are implicated differently under different learning conditions. This ATI study examines the interface between two cognitive abilities—language analytic ability (LAA) and working memory (WM)—and the timing of form-focused instruction—a topic that has not been investigated in previous research.

150 eighth-grade EFL learners attended a two-hour treatment session. They were divided into five groups based on the timing of the form-focused instruction they received. One group received pretask instruction on the linguistic target (English passive voice) before performing two narrative tasks; a second group received within-task feedback but no pretask instruction; a third group received both pretask instruction and within-task feedback; a fourth group received feedback after completing the tasks; and the fifth group just performed the tasks. Treatment effects were gauged through a grammaticality judgement test (GJT) and an elicited imitation test (EIT). The Language Analysis subtest of the PLAB and an operation span test were used to measure LAA and WM respectively.

The results showed that (1) LAA was predictive of the posttest scores of the group who only performed the tasks and the group who received posttask feedback, (2) WM was associated with the learning outcomes of the two groups receiving within-task feedback, and (3) neither cognitive variable was drawn upon by the group that only received pretask instruction. Also, pretest scores were a consistent predictor for all treatment types, especially on the EIT. The results suggest that the impact of LAA is evident when there is less external assistance and that WM is implicated when learners face the heavy processing burden imposed by within-task feedback.