It is an uncontested observation that individuals have different dispositions for learning foreign languages in instructed classroom settings. In view of the variation in students’ abilities, it seems likely that successful learning depends on the way individual strengths can be attended to. The assumption that matching aptitude profiles with particular teaching methods will increase learning gains is at the centre of the aptitude-treatment-interaction (ATI) approach. While individual differences (IDs) have been examined extensively in relation to learning outcomes, there is less empirical work that investigates IDs in terms of potential interaction with educational treatment. However, this take on second language learning (SLL) research has been described as promising for both theory-building and the development of individualised teaching methods. Therefore, this book is a welcome addition to a fairly recent, but growing, body of literature on ATI in SLL and instructed foreign language learning.

It combines seven studies that have previously been published as a special issue of the *Journal of Second Language Studies* in 2019. An introductory chapter by Robert DeKeyser delineates the origins and current state of ATI research and is followed by seven chapters that focus on the cognitive correlates affecting language learning (namely working memory (WM), language analytic ability, rote memory ability, metalinguistic rehearsal ability) in relation to various target languages (English, Spanish, Japanese), linguistic structures (L2 morphology, general morphosyntax, English passive...
voice, English past tense) target groups (students at secondary and tertiary institutions) and areas of proficiency (grammar learning, oral skills). In chapter 1, Suzuki examines the role of WM, language analytic ability, rote memory ability, and metalinguistic rule rehearsal ability on L2 morphological acquisition in an artificial language when practice distribution differs. Chapter 2 by Kachinske and DeKeyser investigates how explicit grammar explanation delivered at different times in the process of acquiring OV structure and ser/estar sentences in Spanish interacts with WM and language aptitude (assessed by the LLAMA (Meara et al. 2001)).

Corrective feedback (CF) and individual differences in WM are the focus of Chapter 3. Fu and Li explore whether WM is implicated differentially in immediate CF, delayed CF or in a condition where no CF is given. Chapter 4 addresses the role of WM in the development of explicit and implicit knowledge of English passive voice in 156 Polish university students. The study by Nielson and DeKeyser reported in Chapter 5 investigates the predictive value of different types of planning (guided, unguided and no-planning) and WM for learners' accuracy and fluency in oral L2 performance. L2 oral production is also at the core of Chapter 6 in which Granena and Yilmaz investigate the relationship between complexity, accuracy and fluency (CAF) and the phonological component of WM. The last chapter by Sachs, Akiyama and Naktsukasa differs from the classic ATI study as it explores the methodological scope within ATI research. The authors investigate the value of introspective measures as a complementary tool for better understanding the connection between test results at group level and individual aptitude profiles.

Given the wide range of contextual, cognitive and affective factors that influence instructed language learning, ATI research involves many challenges relating to the choice of variables, measurement tools and the implementation of complex designs with several treatment conditions. Many ATI studies are carried out in very specific settings and with small samples, making replications much needed to build enough generalisable evidence. Therefore, this book is important to the field in several ways. The studies have been carefully designed and are underpinned by thorough theoretical consideration. The chapters are well structured and outline some of the key concepts of SLL, ATI and IDs, as well as suitable assessment tools. The information is presented in a concise manner and having some background knowledge certainly facilitates reading. Overall, the chapters provide an empirical basis that is informative and can serve as a reference for interested scholars to be extended on.

In sum, the book corroborates insights from psychological and educational research stating that the more cognitive strain a method inflicts
on the individual, the more important the corresponding aptitudes or IDs become for the learning process. For instance, Kachinske and DeKeyser (Chapter 2) argue that a well-timed integration of rule explanation and practice can reduce cognitive burden and moderate the role of WM in L2 grammar learning. Results from Fu and Li’s study (Chapter 3) suggest that immediate CF is less demanding on WM than delayed CF and should therefore be preferred for a general population of learners.

Inevitably, the findings presented by the authors give rise to further questions that may go beyond the scope of this book but will nevertheless need to be addressed at some stage and in some way if ATI is to deliver its promise of contributing to the development of individualised teaching methods. For instance, some summarising reflections on the meaningfulness of the results for (long term) lesson planning and practical implications outside the experimental conditions targeted in the studies, would have made an appropriate conclusion to the volume. Also, given the multifaceted nature of foreign language learning, it would have been interesting to find a depiction (if not inclusion) of other crucial IDs, namely L2 motivation or L2 anxiety, in addition to the strong cognitive focus of the book. These and similar considerations could have taken the findings even further and towards the level of application which is the ultimate goal of ATI research.

Overall, this book is a well-presented collection of studies that make a valuable contribution to the field of ATI research in SLL. It is an insightful and enriching read which is recommended to both researchers and educators.

References