

## Implicit Aptitude in SLA, in Contrast to Explicit Aptitude

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One of the main points of discussion in Dr. Li's (2020) talk was on the distinction between implicit aptitude and explicit aptitude. The operational definition of aptitude refers to cognitive abilities that can predict learners' ultimate attainment as well as learning rate when it comes to second language (L2) learning (Li, 2019). Individuals' aptitude and its relationship with L2 ultimate attainment have long been examined in the field of second language acquisition (SLA). The field's main interest regarding learners' aptitude involves association between aptitude and instructional treatments, the predictive power of aptitude on SLA, and the relationship between age and aptitude (Li, 2019).

Early conceptions of aptitude were concerned with explicit learning abilities in formal learning settings, which according to MLAT (Modern Language Aptitude Test) were measurable based on a phonemic coding ability, an inductive learning ability, an associative memory, and a grammatical sensitivity (Carroll, 1962). However, recent understanding on aptitude has expanded Carroll's (1962) propositions by exploring the manifestations of aptitude's roles beyond conscious learning (Li, 2020). In other words, while aptitude has largely been conceived as explicit learning abilities in instructional settings, current research is shedding light on implicit aptitude and cognitive abilities that are activated during the unconscious processing of learning materials (i.e., in naturalistic learning settings). Clearly, there is a need for implicit learning to be investigated in light of implicit aptitude, instead of merely focusing on the explicit learning process and its outcome.

Granena (2013) likewise supported distinguishing implicit aptitude from explicit aptitude, similar to differentiating explicit and implicit learning based on whether learners are aware of learning. Explicit aptitude taps into cognitive abilities activated during explicit learning and processing as well as rote memorization, while implicit aptitude taps into cognitive abilities related to implicit memory, implicit learning, and implicit processing (Granena & Yilmaz, 2019). Thus, distinct cognitive aptitudes (i.e., explicit aptitude and implicit aptitude) respectively have relevance to explicit and implicit learning. Moreover, when it comes to measuring aptitude, explicit aptitude is gauged by implementing tasks that involve practice and testing phases, whereas, implicit aptitude is measured when learners are not conscious of what they are learning (Saito et al., 2019). For example, the LLAMA, developed by Meara based on the components of MLAT, combines elements of both explicit and implicit aptitude in its four subtests. LLAMA B (a vocabulary learning task), LLAMA E (a sound-symbol correspondence test), and LLAMA F (a grammar inferencing test) in the LLAMA aptitude test (a shorter and language-neutral version of MLAT) are used for measuring explicit aptitude, while LLAMA D (a test of phonemic memory) and probabilistic serial reaction time tasks are implemented to measure implicit aptitude (Granena, 2013).

Given that implicit aptitude has relevance to implicit learning, SLA theories and hypotheses concerning implicit learning have raised the possibility of examining implicit

aptitude during implicit learning (Li, 2020). First, with respect to a usage-based theory, a large amount of L2 learning is considered to occur through encountering diverse instances of L2 usages. Referring to what this theory suggests, implicit aptitude may play a part while learners are unconsciously learning various L2 usages through multiple exposures to TL input. Another SLA theory that factors in implicit learning is skill acquisition theory (DeKeyser, 2007). The theory holds that adult learners' learning starts off with explicit processing of declarative knowledge and with sufficient practice, what has been processed with deliberate attention becomes automatized, resulting in unconscious processing. Thus, based on this claim, implicit aptitude may gain importance after explicit aptitude exerts its potential in the initial stages of the learning process. Furthermore, implicit processing of input is also proposed in the interaction hypothesis which argues that learning is optimized when linguistic input is detected in the initial stages of learning and then processed implicitly in the course of time (Li, 2020). In light of this, implicit aptitude can be considered to take a part in implicit processing of linguistic input. Taken as a whole, Li (2020) explains that the aforementioned hypotheses and theories account for both implicit and explicit abilities in the process of L2 learning, thus casting light on both explicit and implicit aptitude's distinctive implications in SLA.

Despite the fact that current theoretical entities (e.g., theories and hypotheses) in the field fall short on providing adequate understanding on implicit aptitude, Dr. Li's (2020) talk drew attention to investigating implicit aptitude that plays a role during the implicit learning process in SLA. Given that explicit aptitude and implicit aptitude are two distinct cognitive abilities (Granena, 2013), it is hopeful that an in-depth understanding on how implicit aptitude affects the unconscious learning process can support learners to achieve a higher degree of success in SLA. In addition, tailored instructions in which students can implicitly learn can complement learners with low explicit aptitude by guiding them to rely on their implicit aptitude (Li, 2020). While more research on implicit aptitude can lead to the development of the field on language aptitude, it is too early to make conclusive remarks about their role in language acquisition. First, further research is needed to better understand the distinction between implicit aptitude and explicit aptitude, with their connections to implicit and explicit learning. Taking into account complex and dynamic interface between explicit and implicit learning, making a clear-cut distinction on implicit and explicit aptitude should be done with caution (Suzuki & DeKeyser, 2017). In other words, discerning underlying dynamics between implicit and explicit learning is intricate due to difficulties in conceptualizing and operationalizing learners' consciousness (Ellis, 2008). When two constructs (implicit and explicit learning) cannot be clearly differentiated from one another, it is hard to conclude that implicit aptitude only plays a role in implicit learning, but not in explicit learning. Furthermore, empirical evidence is needed to draw connections between implicit aptitude and theoretical entities. This is because connections between implicit aptitude and theoretical entities were largely made when theories or hypotheses were concerned with implicit learning rather than on aptitude, which conflates two distinct constructs. Fitting implicit aptitude to aforementioned SLA theories, simply because they propose the role of implicit learning, may result in speculations rather than providing firm understanding of implicit aptitude's roles in L2 acquisition. All in all, given that the concept of implicit aptitude has been a relatively recent development in aptitude literature, more in-depth research (e.g., inquiring whether there is a relationship between implicit aptitude and explicit aptitude or whether implicit aptitude only plays a role during implicit learning) is required to supplement current preliminary understanding of implicit aptitude.

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