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# Implicit/Explicit Knowledge in Instructed Second Language Acquisition

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One strand of recent theorizing about the potential effects of second language (L2) instruction (e.g. Ellis, 1994) is couched in terms of "interface positions," i.e. claims about the relationships between implicit and explicit learning and knowledge. The strong, weak, and no interface positions all rely crucially on clear distinctions between the processes explicit and implicit learning as well as the products explicit and implicit knowledge. However, L2 empirical research referring to these dichotomies (e.g. Green & Hecht, 1992) has failed to operationalize them rigorously. The present study examines critically the possibility of making claims about implicit and explicit knowledge based on patterns of performance before and after instruction on five tasks allowing or requiring various degrees of metalinguistic awareness: paced oral production, written production, acceptability judgments, corrections of sub-optimal sentences, and verbalization of the constraint or rule perceived to have been violated. The focus of the instructional experiment was a two-level semantic rule constraining argument structure alternations (Pinker, 1989). One level of the rule was assumed to be universal and therefore predicted to be known implicitly by the learners, while the other one was language-specific and not present in the learners' L1, and therefore expected to present a substantial learning problem (as demonstrated by Bley-Vroman & Yoshinaga, 1991). In addition to the primary focus on the knowledge/learning of abstract rules governing the dative and locative alternations, further perspective was provided by control sentences (on three tasks) that highlighted grammatical rules assumed to be familiar to the learners: canonical word order, subject-verb agreement, adverb placement, irregular verbs, and gender agreement on reflexives.

The subjects were 50 adult Japanese intermediate-level learners of English, and 30 native speaker controls. Fourteen Indonesian and 6 Chinese intermediate learners provided additional control over cultural and L1-based variation in task performance. After the first set of experimental tasks, two out of three groups of Japanese subjects, divided by the matched-pairs technique according to proficiency, received 45-minute sessions of instruction on each of the two levels of semantic rules constraining either the locative or the dative alternation, and then all five tasks were repeated. Four of the tasks (all except oral production) were repeated again two weeks later, once more four weeks from completion of instruction, and finally one week later after a 30 minute review of the treatment. Thus, the two instructional conditions could be

characterized as: (1) for one alternation, intensive exposure and explicit instruction; (2) for the other alternation, intensive exposure and indirectly relevant instruction, in that it dealt with an alternation with parallel but quite different, constraints. The third (control) group received only intensive exposure through multiple performances of the tasks.

The results indicate that instruction led to patterns of learning not compatible with any of the interface positions. Explicit instruction led to explicit (verbalizable) learning for only a small number of learners, but to improvement on tasks tapping into (arguably) implicit knowledge bases for nearly all of the explicitly instructed learners. The most dramatic changes in learner performance occurred on their acceptability judgments: both instructed groups overgeneralized in the direction of becoming much more tolerant of both dative and locative alternations for a wide variety of verbs, with the group instructed on the relevant alternation recovering faster and more completely from the overgeneralization on the delayed post-tests. The overgeneralization and subsequent more target-like performance were not accompanied by evidence of explicit knowledge. Another anomaly for a theory that links instruction with explicit learning is the advantage in post-instruction performance on a paced spoken task over an unpaced written task. Overall, the patterns of performance on tasks over time cast serious doubt on the viability of an implicit/explicit dichotomy in L2 learning.

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