

METACOGNITIVE STRATEGIES BASED INSTRUCTION TO SUPPORT LEARNER AUTONOMY IN LANGUAGE LEARNING

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ABSTRACT

This paper will discuss the nature of learner autonomy and its positive influence on learning outcomes. The first part presents an account of language learning theories and their corresponding effects on curriculum design and teaching methods with special reference to metacognition and learner autonomy. The key elements leading to metacognition, self-awareness, and meta-self-awareness will be analysed. The pedagogical application by means of the use of metacognitive learning strategies and metacognitive strategies based instruction in order to foster autonomous learning in schools will be proposed, and a specific model for metacognitive strategies based instruction to promote learner autonomy in classrooms will be presented.

KEY WORDS: Metacognition, metacognitive strategies, learner autonomy, language learning.

RESUMEN

Este artículo versa sobre la naturaleza del aprendizaje autónomo y sus efectos positivos sobre el proceso de aprendizaje. La primera parte presenta una revisión de las teorías sobre el aprendizaje de lenguas y sus efectos sobre los diseños curriculares y métodos didácticos que manifiestan la importancia de la metacognición y el aprendizaje autónomo. Los elementos principales que conducen a la metacognición, autoconsciencia y meta autoconsciencia, se analizarán. Se propone una aplicación pedagógica mediante el uso de las estrategias metacognitivas y la enseñanza basada en las estrategias metacognitivas de aprendizaje para desarrollar el aprendizaje autónomo en clase, y se presentará un modelo concreto para desarrollar la enseñanza basada en las estrategias metacognitivas de aprendizaje para promover el aprendizaje autónomo.

PALABRAS CLAVE: metacognición, estrategias metacognitivas, aprendizaje autónomo, aprendizaje de lenguas.



1. INTRODUCTION

The following article proposes that the conscious and focused employment of metacognitive learning strategies (MLS) to promote learner autonomy (LA) will lead to improved learning outcomes. In order to be autonomous learners, students must first be conscious of who and where they are in relation to themselves, their peers and society. They must also know what kind of a learner they are and what their role in their learning process is, but most of all they must be convinced that awareness of these aspects will make a difference. Moreover, learning cannot be autonomous if there is no metacognition to supervise, organise and plan the process. Learning is part of everyone's life; whether they attend formal schooling, university, or not, people will learn. However learning within the educational context will not happen spontaneously; it is a carefully planned and monitored activity which requires the active involvement of students and teachers. The fact that this does not always occur is reflected in the low rate of completion of basic secondary education in Spain where 31.2% of 16 to 18 year-old students drop out, give up, or simply fail to reach the very minimum required standards at secondary schools, and only 28% of the Spanish population claimed to have completed secondary education.¹ There are obviously numerous and diverse reasons for this failure in our education system such as social, environmental, and family related factors, among others, which professional educators on their own cannot overcome. Nevertheless there are two important factors which can be controlled within the education system, or at least be made explicitly available to students: metacognitive learning strategies and learner autonomy.

Learner autonomy, which is a buzz word today, did not suddenly happen and it is not a passing phase. It is the outcome of the development of many learning theories, and the work of numerous thinkers and researchers who have proposed hypothesis and given evidence of how humans learn languages in natural and educational settings. Smith (2008) in his *History of Learner Autonomy*, reminds us that this pedagogical proposal has at least a thirty-year publication history since it was first developed by Holec in 1979 in association with the Council of Europe's Language Education Policy. Smith gives detailed information of worldwide conferences and workshops since then and includes education institutions such as Trinity College Dublin and CILT which have promoted this field of study by supporting research on the topic and producing many publications. Researchers generally agree that the concept of learner autonomy was introduced by Holec in 1981 as "the ability to take charge of one's own learning." Since then, many authors have proposed its integration in the school curriculum (Dam and Gabrielsen; Karlsson, Kjisik, and Nordlund) and more research has been carried out to clarify its meaning and pedagogy for teachers (Little, *Learner*; Dam).

¹ According to a survey carried out by a Spanish educational online newspaper *Magister* and CIS Report published in July 2009.

This paper covers different aspects related to metacognitive strategies based instruction and learner autonomy. Education theories and systems and consequently curricula and methods have been in constant evolution over the last 50 years, so in the first place I have presented an overview of language learning theories and their corresponding effects on curriculum design and teaching methods with the aim of understanding how we have arrived at learner autonomy. Secondly we will be looking at key elements for metacognition: self-awareness and meta-self-awareness. Thirdly we will look at metacognition and its practical development through the use of metacognitive learning strategies. The fourth part of this paper will go beyond theoretical aspects and propose the pedagogical application of metacognition in classrooms through the promotion of metacognitive learning strategies based instruction in order to foster autonomous learning in schools. Finally, the conclusion will propose a framework for empowering the learner in classrooms through the use of Metacognitive Learning Strategies Based Instruction to promote autonomous learning.

2. FROM BEHAVIOURISM TO LEARNER AUTONOMY: AN OVERVIEW

Learning theories have come a long way since Skinner postulated that children learn by imitation and reinforcement, learners were considered as brains to be filled up and trained, and classrooms were predominantly academic. Declarative knowledge was transmitted by the teacher to passive-receptive students who were encouraged to master these facts and skills which were regurgitated to the teacher during exams. The language itself and unattainable native-speaker and grammatical accuracy were of paramount importance as part of this classical curriculum (Clark 5-13). Fortunately, Chomsky exposed the fact that errors and creativity are not based on imitation and that reinforcement could not account for all learning. He argued that language is not a habit structure because linguistic behaviour characteristically involves innovation, formation of new sentences and patterns based on abstract and complex conjectures, not simply imitation. He concluded that language learning is biologically determined by the brain's innate ability to interpret linguistic information from birth by means of the Language Acquisition Device (LAD), which explains why wherever children are born and raised, regardless of their ancestry, they will learn the language spoken in their surroundings. However liberating and innovative, Chomsky's theories did not have a pedagogical purpose and therefore did not take into account the educational context or the interaction between children and adults, so the communicative aspect of language was largely ignored until Canale and Swain ("Theoretical") introduced the notion of communicative competence to fill in this gap. This led to new ways to present and organize language instruction, which embraced the notional-functional syllabus (Van Ek; Wilkins) and communicative language teaching (Littlewood). This new reconstructive curriculum (Clark 22-24) added significant improvements to the



former. It promoted less controlled communication in classrooms and included the integration of the four language learning skills. However, learners were considered to be a “homogenous entity” and learning and assessment were still based on aspects of language that included the reinforcement of habits and the rehearsal of behavioural goals in externally set exams.

Chomsky’s theories were also contested by Piaget’s proposals which were influenced by the advances of neuroscience placing language learning in the context of a child’s mental or cognitive development. By this stage, the shift had been made from an interest in language accuracy to language fluency and communication. This meant the method and therefore the teacher became more important than the language itself. This led to the flourishing of countless language learning methods (Richards and Rodgers), and a renewed interest in teacher training. But, the cognitive model, in turn, has its limitations as it cannot account for factors such as motivation or emotions explained by Maslow’s pyramid of the hierarchy of human needs, which stated that unless the three basic physiological, affective and emotional needs are satisfied, higher order cognition or creativity cannot take place. Bloom’s taxonomy reinforced Maslow’s proposals, by dividing educational objectives into three domains: affective, psychomotor, and cognitive. The incorporation of these theories enabled the appearance of humanistic approaches which aimed to improve learning through the promotion of emotional and affective aspects (Moskowitz; Stevick).

Jean Piaget’s theory of cognitive development was also criticized as incomplete because it ignores individual learner differences in cognitive development. That is, the theory does not account for the fact that some individuals move from stage to stage faster than other individuals. Howard Gardner challenged the cognitive development theories of Piaget by bringing forward evidence to show that at any one time a child may be at very different stages; he therefore undermined the idea that knowledge at any one particular developmental stage is unmovable. Gardner (*Frames*, “Multiple”) proposed that students have different kinds of minds and intelligences, an idea that has been further developed by many educationalists as learning styles (Kolb; Reid). Language learning theories attempted to strike a balance between establishing universal truths such as Chomsky’s LAD and Piaget’s developmental stages on the one hand and recognising learner differences on the other. However, Gardner’s Multiple Intelligences Theory (MI) led to a significant change of paradigm for learning theories. This brought about a renewed interest in how learners differ and how these differences can actually enhance learning, and so the focus shifted towards the learners themselves instead of the language or the method.

Meanwhile, input or interactional theories have stressed the importance of interaction and communication in language learning. Vygotsky’s theoretical framework added another missing aspect by proposing a socio-cultural theory which claims that language learning is a social construct because social interaction plays a fundamental role in the development of cognition. From then on the shift from learning process towards the learners themselves as protagonists of the event was complete.



However this increased interest in the learner which evolved into learner centered teaching (Nunan; McCombs and Whisler) was mainly preoccupied with aspects such as syllabus and curriculum planning, setting objectives and contents which were still mostly grammar and topic-based, and was still not really empowering the learners who remained passive although they were the central element; the teaching was still being done “to” them or “for” them as largely complacent recipients, but not “with” them. The real empowerment of the learner, and the subsequent liberation of the teacher, arrived with the recognition that metacognition and learner autonomy or preparation for life-long learning should be the goals of teachers and teaching systems. The adoption of the progressive curriculum (Clark 55-64) which is based on the development of the learner as a whole person who has the responsibility and capacity to control his own learning process through metacognitive awareness, led to a renewed syllabus design based on the development of competences which enable learners to develop life-long learning skills. Learning is viewed as an individual process and assessment includes diverse examples of students’ individual progress and interests, including portfolios and self-evaluation techniques, instead of homogenous standardised tests.

In spite of all the research, there is no unanimously accepted language learning theory which offers the ideal language teaching method. However, this should not overshadow the fact that a great deal of progress has been made. According to Bransford, Brown and Cocking in their study *How People Learn: Brain, Mind, Experience and School* commissioned by the U.S. Committee on Developments in the Science of Learning Commission: “there is no universal best teaching practice. Instead the point of departure is a core set of learning principles, then selection of teaching strategies.” They also identify three main factors which influence learning: engaging prior knowledge, making sure declarative knowledge is transferred to the procedural and conditional stage, and finally “using metacognitive strategies to take an active role over the learning process” (223).

Our knowledge and beliefs about learning will inevitably affect how we teach, what we teach and how we evaluate. We have learned a great deal about the learning process, and although the theories presented are not exclusive and may seem to be in competition, they coexist, overlap, and develop over time, representing partial explanations of the complex multifaceted process of language learning. Most education systems at present are adopting the progressive curriculum which, as we have seen, actively promotes learner autonomy as the best way to prepare students for learning and for life. Learner autonomy is based on the belief that guided reflection will enable students to control their learning process by conscious application of learning strategies (Joseph). However, metacognition relies on students’ ability to reflect and build awareness of themselves and their learning process, and unless teachers and educators are convinced that students are capable of accessing metacognition, they will not trust their students to be autonomous learners. According to Little (*Learner*), the development of learner autonomy is a consequence of explicit and conscious intention. This intention is inextricably dependent on the varying degrees of self-awareness our students possess. Learner autonomy cannot be fostered without self-awareness and metacognition.



3. CONSCIOUSNESS, SELF-AWARENESS, AND META-SELF-AWARENESS

In relation to a learners' personal awareness there are two related terms: self-consciousness and self-awareness. Consciousness refers to access to introspective knowledge about oneself; self-awareness is a more sophisticated form of consciousness which refers to access to an ongoing perception of one's inner reality and knowledge of one's physical and mental states. Self-awareness is the explicit understanding that one exists. Furthermore, it includes the concept that one exists as an individual, separate from other people, with private thoughts. It also includes the understanding that other people are similarly self-aware. It is during periods of self-consciousness that people come the closest to knowing themselves and their environment objectively and are therefore more able to control their actions. This contrast and integration of outward or environmental consciousness and inward self-awareness was first established by Mead and later Duval and Wicklund and has been popular in experimental psychology over the last thirty years (Carver and Scheier; Silvia and Duval).

Some psychologists (Zelazo; Zelazo and Sommerville) have adopted a developmental perspective on the degrees of consciousness called the "Levels of Consciousness" model (LOC), which explains how five degrees of consciousness gradually emerge in infants and children. The LOC model implies that with each higher level of consciousness, mental experiences become qualitatively richer and easier to recall, and conscious control of behavior increases. Morin (369) has aimed to reduce confusion due to the proliferation of models of consciousness and self awareness and summarized the recent literature on the subject by identifying four stages of consciousness and self-awareness: an unconsciousness or limbic stage; to consciousness associated with early years (1-6), self-awareness; and finally a stage denominated "meta-self-awareness."

The lowest level (first year of life) is "minimal consciousness," which basically represents consciousness where the infant unreflectively experiences stimuli in the present. Past events cannot be recalled, and future anticipated states cannot be mentally represented. Children in the second stage (9-12 months) experience "recursive consciousness" by associating perceptual experience with a description of it from memory as when a thing or person is recognised because it has been seen before. The third stage, referred to as 'self-consciousness' takes place in children between the ages of 18-months to 2-years-old, when the child can engage in additional reflection on the contents of recursive consciousness by adding the subjective experience of time and by being aware of past or future events in relation to a present experience. The stages gradually progress to higher levels of self-awareness and by the age of 6, the child can become simultaneously aware of two experiences occurring at different times, and is able to take an increasingly objective perspective in space and time culminating with a differentiation between subjective and objective views of experiences of the self and others. There is one final level of consciousness to be reached which is referred to as "meta-self-awareness" —being aware that one is self-aware (Morin and Everett). It represents a logical extension of the previ-



ous stage; whereas a person who is self-aware can say: “I am learning,” the same person who is also meta-self-aware could say “I’m aware of the fact that I’m learning.” Both self-awareness and meta-self-awareness involve knowing that we are responsible for our thoughts and actions also referred to as “self-agency” (Vignemont and Fourneret). Metacognition represents the next stage where the child can say “I’m aware of the fact that I’m learning, and I’m aware of how I’m learning.”

Learners who are metacognitively aware are highly desirable; they think about how they learn and make an effort to improve their learning outcomes, in other words: “Learners who are skilled in metacognitive self-awareness are more strategic and perform better than those who are unaware” (Öz). As we have just seen, much of the development of self awareness will have occurred in primary school, however it is an ongoing process and although we can assume theoretically that our students are capable of meta-self-awareness, undoubtedly they will need guidance in order to access it and understand what it is and how it can help them regulate and improve their learning outcomes. Teachers may consider that although their students have developed self-awareness and meta-self-awareness, metacognition is too abstract and complex for them to make use of it. This is simply not true because: “Almost anyone who can perform a skill is capable of metacognition; that is, thinking about how they perform that skill” (Schraw, “Promoting” 123). Investigations have shown that children, no matter what their proficiency level, are capable of describing their thinking and learning process in detail, concluding that “metacognitive awareness begins at quite an early stage” (Chamot and El-Dinary 331). However, students cannot accept responsibility for their own learning or take any initiatives in the process if they do not know how they learn or how to learn and that is why the role of the educator is vital. Teachers are the key mediators between what the students know and what they need to learn: “if teachers stop teaching, most learners will stop learning” (Little, “Learner” 1). Teachers can guide learners in their process of self-discovery by helping them think about what happens during their learning process and how they can develop better learning skills. The most pedagogical way to introduce metacognition in classrooms is by means of the use of metacognitive learning strategies.

4. METACOGNITION AND METACOGNITIVE STRATEGIES

First accounts of metacognition were strongly linked to early cognitive learning theories. According to cognitive psychology, cognition is the mental ability to learn and acquire knowledge; it refers to the processing of information, applying knowledge, and changing preferences, whereas metacognition refers to what learners do to plan, monitor and evaluate the process. J.H. Flavell (232) first used the word “metacognition” which he described as the process of thinking about thinking and refers to one’s knowledge concerning one’s own cognitive processes or anything related to them. Flavell argued that metacognition explains why children of different ages deal with learning tasks in different ways, and why some are more successful than others. According to Brown it has two elements: knowledge of cog-



dition and regulation of cognition. I propose that metacognition is much more than control of cognition: Metacognition is the knowledge and control of one's entire learning process: "metacognition refers to the ability to reflect upon, understand and control one's learning" (Schraw and Dennison 460). As we have seen, learning encompasses many aspects as well as cognition, such as the psychomotor, affective (Bloom), social and cultural (Vigotsky) which early cognitive theories lacked. Metacognition is not only about planning for mental processing, it is also about planning for control of anxiety, timing, interaction, practice and evaluation of learning. It is the executive organizer of all the elements which intervene in the whole learning process.

From a strategic point of view, metacognition includes the awareness of declarative, procedural and conditional knowledge (Schraw, "Promotion" 114). Good learners are normally equipped with a high degree of metacognitive awareness as recent research on the subject has confirmed and metacognitive knowledge may also compensate for low ability or lack of relevant prior knowledge. Swanson claimed that metacognitive knowledge compensates for low IQ in studies comparing primary students' problem solving ability. According to Anderson "when learners reflect upon their learning strategies, they become better prepared to make conscious decisions about what they can do to improve their learning. Strong metacognitive skills empower second language learners."

Traditionally, language curricula have tended to concentrate on teaching knowledge and skills, and have neglected to teach learners how to learn. Learner training in second or foreign language teaching is a new way of teaching learners explicitly the techniques of learning, and an awareness of how and when to use strategies to enable them to become self-directed (Williams and Burden). Metacognition itself is not something that can be taught directly because it is part of a person's internal self-awareness as a learner; however, learners can be made aware of their learning processes and taught how to enhance them by means of metacognitive learning strategies. As Oxford explains: "Metacognitive means beyond, beside, or with the cognitive. Therefore, metacognitive strategies are actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning process" (136).

The practical application of metacognition can only be achieved by promoting the use of metacognitive strategies which in turn will lead to learner autonomy. According to Little et al. (2) the development of autonomy in language learning is governed by three basic principles: "learner involvement," "learner reflection" and "appropriate target language use," and all three aspects are defined by Little as "metacognitive dimensions."

Studies into metacognition are relatively recent and have experienced growing significance in language learning education as a result of a growing interest in Language Learning Strategies and especially the work of Oxford and Cohen and Weaver. Language Learning Strategies (LLS) have been classified in many ways since Rubin's classification ("What") pioneered much of the work in this field. In 1987, she made the distinction between strategies contributing directly to learning, which she identified as cognitive and metacognitive, and those contributing indi-



rectly to learning, namely, communication and social strategies. O'Malley et al. (582-584) proposed a simpler classification including 26 strategies which are divided into three main subcategories: Metacognitive, Cognitive, and Social Strategies. Oxford identified six major groups of L2 learning strategies, namely: cognitive, metacognitive, memory-related, compensatory, affective, and social strategies. She further subdivided them into direct (memory, cognitive and compensation), and indirect (metacognitive, affective and social). Most of these attempts to classify LLS reflect similar categorizations without any radical changes; the only distinguishing elements have been the gradual incorporation of social and affective strategies, and the unclear distinction between communication and learning strategies. Almost all of them have included metacognitive strategies as key elements in the learning process.

Oxford (36) has presented a clearly pedagogical proposal for developing MLS which includes three strategy sets: "Centering your learning, Arranging and planning your learning, and Evaluating your learning." These sets are subdivided into eleven strategies which are presented in Table 1 below.

TABLE 1. ADAPTED FROM OXFORD'S CLASSIFICATION OF METACOGNITIVE STRATEGIES (137)

OXFORD'S CLASSIFICATION OF METACOGNITIVE STRATEGIES (1990)	
(A) Centering your learning	Overviewing and linking with prior knowledge
	Paying attention
	Delaying speech production to focus on listening
(B) Arranging and planning your learning	Finding out about language learning
	Organising
	Setting goals and objectives
	Identifying the purpose of a language task
	Planning for a language task
(C) Evaluating your learning	Seeking practice opportunities
	Self-monitoring
	Self-evaluating

5. FROM TEACHER-CENTERED CLASSROOMS TO PROMOTING AUTONOMOUS LEARNING

In order to implement learner autonomy, classrooms must be prepared for change; teachers should accept the fact that learners are capable of metacognition and willing to learn to use metacognitive strategies and accept responsibility for their learning process. A class full of autonomous learners is in danger of becoming



an impossible goal; ideal students who are self-motivated and active agents in their own learning process will not suddenly appear. Theoretically sound proposals will not seduce teachers who are well aware that autonomous learning will not occur spontaneously, unless it is accompanied by a specific methodology. Learner autonomy is not a traditional teaching method because it cannot be “done” to learners, however it should be presented as a goal that can be fostered by a specific way of teaching, otherwise it will remain a theoretical goal which only exists in the minds of unrealistic academics who coined the name without bearing in mind the daily task of thousands of teachers educating hundreds of pupils every day. There is no magic recipe to promote learner autonomy in the classroom, however, the following are some pedagogical proposals to promote learner autonomy which can help teachers to reflect on the subject and gradually incorporate autonomous learning in their classes.

Huba and Freed have proposed a comparative framework of teacher-centred and student-centred teaching. In a teacher-centred paradigm, knowledge is transmitted from teacher to student, who passively receives information which is assessed by objectively scored tests based on accuracy (often unrelated to classroom activities). On the other hand, in the learner-centered paradigm, the teacher’s role is a facilitator who ensures students are actively involved in constructing knowledge through critical thinking. Assessment is based on portfolios, project work and includes all learning activities, not only teacher generated tests.

There are so many pedagogical proposals for implementing strategies based instruction and promoting learner autonomy that it is not easy to decide which is most appropriate for individual settings. Grow (157) proposes a set of four stages taking learners from dependence to self-direction. In the first, dependent stage, students will need explicit instruction on what is to be done and how it is to be carried out. In the second stage, moderately-directed students will have more confidence in their ability and begin goal-setting. In the third, intermediate stage, students are amenable to learning about how they learn and they can begin to actively use learning strategies to enhance learning. The final stage is referred to as high self-direction and teachers can set challenges and expect students to carry them out independently. Smith and MacGregor propose collaborative classrooms to facilitate cooperative learning. Collaborative learning takes small groups of students and presents them with a problem, task or creative undertaking. According to Hartman and Sternberg (qtd. Schraw, “Promoting” 118) there are four ways to increase metacognition in classroom settings: promoting awareness of the importance of metacognition, improving knowledge of cognition, improving regulation of cognition, and fostering environments that promote metacognitive awareness. Schraw himself (“Promoting” 123) reduced this proposal to three stages: building awareness, teaching strategies and making careful decisions to plan, monitor and evaluate learning. Anderson’s model (1-2) includes five stages: planning and preparing, selecting and using strategies, monitoring strategy use, orchestrating various strategies and evaluating strategies used.

These and other proposals (Wenden and Rubin; Oxford; Hartman and Sternberg; Chamot and O’ Malley; Cohen; Rubin, “Language”) put forward com-



mon and complimentary aspects which I have summarized in the following inclusive scheme for metacognitive strategy based instruction in Table 2.

TABLE 2. MODEL FOR METACOGNITIVE STRATEGY BASED INSTRUCTION TO PROMOTE LEARNER AUTONOMY

MODEL FOR METACOGNITIVE STRATEGY BASED INSTRUCTION TO PROMOTE LEARNER AUTONOMY	
COMPONENT	PROCEDURE/METHOD
1. Diagnose	Teacher administers specific questionnaires or inventories.
2. Build Awareness	Discussion and reflection among students and between teacher and students.
3. Determine needs and select strategies	Students and teacher negotiate strategies to be worked on as a result of the previous stages.
4. Explicit information and activities	These can be integrated with students' regular coursebook or specifically selected materials from other sources.
5. Monitor strategy use	By using checklists, diaries, discussions.
6. Evaluate learning progress and strategy use	Self-evaluation questionnaires, portfolios, projects.

6. CONCLUSION

This paper has discussed the nature of learner autonomy and its positive influence in learning outcomes. An overview of learning theories over the last 50 years has led to the conclusion that although there is no perfect learning theory or teaching method, learner autonomy achieved through the promotion of metacognitive strategies is one of the key elements in learning. The LOC model in psychology has shown that students are capable of self-awareness and meta-self-awareness, which leads to a capacity for metacognition at an early age. However, metacognition cannot be taught directly; it must be developed by encouraging metacognitive awareness and the use of metacognitive learning strategies thereby promoting autonomous learning environments. Teachers' roles ensuring students' metacognitive awareness is raised and encouraging them to take responsibility for their learning process is of paramount importance. Classrooms in which learner autonomy is fostered by means of the implementation of metacognitive strategies based instruction will empower the learners and enable them to develop life-long learning skills. Finally after reviewing some proposals for pedagogical application, a specific model for metacognitive strategies based instruction to promote learner autonomy in classrooms has been proposed.



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