BILINGUALISM: LANGUAGE AND COGNITION

BILINGUALISM: LANGUAGE AND COGNITION REPRESENTS A FASCINATING INTERSECTION OF LINGUISTIC PROFICIENCY AND MENTAL PROCESSES. THIS COMPLEX PHENOMENON INVOLVES THE SIMULTANEOUS OR SEQUENTIAL ACQUISITION OF TWO LANGUAGES, LEADING TO UNIQUE COGNITIVE OUTCOMES AND IMPLICATIONS FOR BRAIN FUNCTION. UNDERSTANDING BILINGUALISM IN THE CONTEXT OF LANGUAGE AND COGNITION REVEALS HOW MANAGING MULTIPLE LANGUAGES IMPACTS MEMORY, ATTENTION, AND EXECUTIVE CONTROL. THE COGNITIVE ADVANTAGES AND CHALLENGES ASSOCIATED WITH BILINGUALISM ARE CRITICAL AREAS OF RESEARCH IN PSYCHOLINGUISTICS AND NEUROSCIENCE. THIS ARTICLE EXPLORES THE DEFINITIONS, COGNITIVE EFFECTS, NEUROLOGICAL UNDERPINNINGS, AND EDUCATIONAL IMPLICATIONS OF BILINGUALISM. IT OFFERS AN IN-DEPTH ANALYSIS OF HOW BILINGUAL INDIVIDUALS PROCESS LANGUAGE AND HOW THIS INFLUENCES BROADER COGNITIVE ABILITIES. THE FOLLOWING SECTIONS PROVIDE A STRUCTURED OVERVIEW OF BILINGUALISM'S MULTIFACETED RELATIONSHIP WITH LANGUAGE AND COGNITION.

- DEFINING BILINGUALISM AND ITS TYPES
- Cognitive Effects of Bilingualism
- NEUROLOGICAL BASIS OF BILINGUAL LANGUAGE PROCESSING
- BILINGUALISM AND EXECUTIVE FUNCTION
- EDUCATIONAL AND DEVELOPMENTAL IMPLICATIONS

DEFINING BILINGUALISM AND ITS TYPES

BILINGUALISM REFERS TO THE ABILITY TO USE TWO LANGUAGES PROFICIENTLY. HOWEVER, THIS DEFINITION ENCOMPASSES A WIDE RANGE OF LINGUISTIC COMPETENCIES AND EXPERIENCES. THE TERM CAN APPLY TO INDIVIDUALS WHO SPEAK TWO LANGUAGES FROM BIRTH OR THOSE WHO LEARN A SECOND LANGUAGE LATER IN LIFE. VARIATIONS IN PROFICIENCY, CONTEXT OF LANGUAGE USE, AND THE BALANCE BETWEEN LANGUAGES CONTRIBUTE TO DIFFERENT TYPES OF BILINGUALISM.

SIMULTANEOUS VS. SEQUENTIAL BILINGUALISM

SIMULTANEOUS BILINGUALISM OCCURS WHEN A PERSON ACQUIRES TWO LANGUAGES FROM INFANCY, TYPICALLY IN NATURALISTIC SETTINGS SUCH AS A BILINGUAL HOUSEHOLD. SEQUENTIAL BILINGUALISM, ON THE OTHER HAND, REFERS TO LEARNING A SECOND LANGUAGE AFTER ESTABLISHING THE FIRST LANGUAGE, OFTEN DURING CHILDHOOD OR ADULTHOOD. THESE DISTINCTIONS INFLUENCE COGNITIVE DEVELOPMENT AND LANGUAGE PROCESSING MECHANISMS.

BALANCED AND DOMINANT BILLINGUALS

BALANCED BILINGUALS POSSESS ROUGHLY EQUAL PROFICIENCY IN BOTH LANGUAGES, WHILE DOMINANT BILINGUALS HAVE GREATER FLUENCY OR COMFORT IN ONE LANGUAGE OVER THE OTHER. THIS DOMINANCE AFFECTS HOW THE BRAIN MANAGES AND SWITCHES BETWEEN LANGUAGES, IMPACTING COGNITIVE CONTROL AND LINGUISTIC PERFORMANCE.

Types of Bilingualism Based on Context

BILINGUALISM CAN ALSO BE CLASSIFIED BY CONTEXT, SUCH AS SOCIETAL BILINGUALISM, WHERE A COMMUNITY REGULARLY USES TWO LANGUAGES, AND INDIVIDUAL BILINGUALISM, WHICH PERTAINS TO A PERSON'S LANGUAGE SKILLS IRRESPECTIVE OF THE SOCIAL ENVIRONMENT. THESE CONTEXTUAL FACTORS SHAPE LANGUAGE USE PATTERNS AND COGNITIVE OUTCOMES.

COGNITIVE EFFECTS OF BILINGUALISM

BILINGUALISM INFLUENCES MULTIPLE COGNITIVE DOMAINS, AFFECTING HOW INDIVIDUALS PROCESS INFORMATION, SOLVE PROBLEMS, AND REGULATE ATTENTION. RESEARCH INDICATES THAT BILINGUAL INDIVIDUALS OFTEN EXHIBIT ENHANCED COGNITIVE FLEXIBILITY AND IMPROVED EXECUTIVE FUNCTION COMPARED TO MONOLINGUALS. HOWEVER, BILINGUALISM CAN ALSO PRESENT SPECIFIC CHALLENGES RELATED TO VOCABULARY ACQUISITION AND LANGUAGE RETRIEVAL.

ADVANTAGES IN COGNITIVE FLEXIBILITY AND ATTENTION

One of the most significant cognitive benefits linked to bilingualism is enhanced cognitive flexibility. Bilingual individuals are skilled at shifting between tasks and adapting to changing demands. This flexibility extends to attentional control, enabling better filtering of irrelevant stimuli and improved focus on relevant tasks.

MEMORY AND LANGUAGE PROCESSING

BILINGUALISM AFFECTS WORKING MEMORY AND LONG-TERM MEMORY PROCESSES. WHILE BILINGUALS MAY EXPERIENCE SLOWER LEXICAL RETRIEVAL IN EACH LANGUAGE DUE TO DIVIDED EXPOSURE, THEIR OVERALL MEMORY CAPACITY FOR MANAGING LINGUISTIC INFORMATION IS OFTEN SUPERIOR. THIS ADVANTAGE TRANSLATES INTO MORE EFFICIENT LANGUAGE SWITCHING AND CODE-SWITCHING ABILITIES.

POTENTIAL CHALLENGES IN VOCABULARY AND FLUENCY

BILINGUAL INDIVIDUALS SOMETIMES DEMONSTRATE SMALLER VOCABULARIES IN EACH LANGUAGE RELATIVE TO MONOLINGUAL SPEAKERS. THIS PHENOMENON ARISES BECAUSE LANGUAGE EXPOSURE IS SPLIT BETWEEN TWO LANGUAGES, LEADING TO LESS FREQUENT USE OF SPECIFIC WORDS. DESPITE THIS, BILINGUALS TYPICALLY COMPENSATE THROUGH BROADER OVERALL LINGUISTIC KNOWLEDGE AND THE ABILITY TO TRANSFER SKILLS ACROSS LANGUAGES.

NEUROLOGICAL BASIS OF BILINGUAL LANGUAGE PROCESSING

The brain mechanisms underlying bilingualism reveal how neural structures adapt to manage multiple languages. Neuroimaging studies have identified specific regions involved in language control and cognitive regulation that show increased activity in bilingual individuals. Understanding these neural substrates is essential for comprehending the cognitive effects of bilingualism.

BRAIN REGIONS INVOLVED IN BILINGUALISM

BILINGUAL LANGUAGE PROCESSING ENGAGES AREAS SUCH AS THE PREFRONTAL CORTEX, ANTERIOR CINGULATE CORTEX, AND BASAL GANGLIA. THESE REGIONS CONTRIBUTE TO LANGUAGE SWITCHING, INHIBITION OF IRRELEVANT LINGUISTIC INFORMATION, AND MONITORING OF LANGUAGE USE. ENHANCED CONNECTIVITY AND EFFICIENCY IN THESE BRAIN AREAS SUPPORT BILINGUALS' LANGUAGE MANAGEMENT SKILLS.

NEUROPLASTICITY AND LANGUAGE ACQUISITION

Neuroplasticity plays a vital role in bilingualism, especially in early language acquisition. The brain's capacity to reorganize itself allows bilingual individuals to develop distinct but overlapping neural networks for each language. This adaptability decreases with age but remains significant in adult language learning and cognitive function.

IMPACT OF AGE OF ACQUISITION ON BRAIN STRUCTURE

The age at which the second language is acquired affects brain structure and function. Early bilinguals often show more integrated neural representations of both languages, whereas late bilinguals may rely more on distinct brain areas. These differences influence language proficiency and cognitive control capabilities.

BILINGUALISM AND EXECUTIVE FUNCTION

EXECUTIVE FUNCTION ENCOMPASSES A SET OF COGNITIVE PROCESSES ESSENTIAL FOR GOAL-DIRECTED BEHAVIOR, INCLUDING INHIBITORY CONTROL, WORKING MEMORY, AND COGNITIVE FLEXIBILITY. BILINGUALISM IS CLOSELY LINKED TO ENHANCED EXECUTIVE FUNCTIONING DUE TO THE CONSTANT NEED TO MANAGE AND SWITCH BETWEEN LANGUAGES.

INHIBITORY CONTROL AND LANGUAGE SUPPRESSION

BILINGUALS REGULARLY SUPPRESS ONE LANGUAGE WHILE USING THE OTHER, STRENGTHENING INHIBITORY CONTROL MECHANISMS.
This suppression involves preventing interference from the non-target language, which enhances the brain's ability to inhibit irrelevant information in non-linguistic contexts as well.

WORKING MEMORY AND TASK SWITCHING

Managing two languages requires robust working memory to keep track of linguistic rules and vocabulary. Bilingual individuals often excel in task switching, reflecting the mental agility needed to alternate between language systems efficiently.

EMPIRICAL EVIDENCE SUPPORTING EXECUTIVE FUNCTION ADVANTAGES

Numerous studies have demonstrated that bilingualism confers advantages in executive function tasks. These advantages include faster reaction times, better problem-solving abilities, and superior performance on attention control assessments when compared to monolingual peers.

EDUCATIONAL AND DEVELOPMENTAL IMPLICATIONS

The relationship between bilingualism, language, and cognition has important implications for education and child development. Recognizing the cognitive and linguistic benefits of bilingualism informs teaching strategies, language policy, and support for bilingual learners.

LANGUAGE DEVELOPMENT IN BILINGUAL CHILDREN

BILINGUAL CHILDREN DEVELOP LANGUAGE SKILLS DIFFERENTLY THAN MONOLINGUAL CHILDREN, OFTEN EXHIBITING MIXED LANGUAGE DOMINANCE AND CODE-SWITCHING BEHAVIORS. EARLY EXPOSURE TO MULTIPLE LANGUAGES SUPPORTS COGNITIVE GROWTH AND ENHANCES METALINGUISTIC AWARENESS.

BENEFITS OF BILINGUAL EDUCATION

BILINGUAL EDUCATION PROGRAMS PROMOTE PROFICIENCY IN TWO LANGUAGES AND LEVERAGE COGNITIVE BENEFITS TO IMPROVE ACADEMIC ACHIEVEMENT. THESE PROGRAMS FOSTER CULTURAL AWARENESS, COGNITIVE FLEXIBILITY, AND BETTER PROBLEM-SOLVING SKILLS AMONG STUDENTS.

CHALLENGES AND CONSIDERATIONS IN BILINGUAL EDUCATION

EDUCATORS MUST ADDRESS CHALLENGES SUCH AS UNEQUAL LANGUAGE EXPOSURE, BALANCING LANGUAGE PROFICIENCY, AND PREVENTING LANGUAGE ATTRITION. EFFECTIVE BILINGUAL EDUCATION REQUIRES TAILORED APPROACHES THAT CONSIDER INDIVIDUAL LEARNER NEEDS AND SOCIOCULTURAL CONTEXTS.

KEY STRATEGIES FOR SUPPORTING BILINGUAL LEARNERS

- ENCOURAGING CONSISTENT EXPOSURE TO BOTH LANGUAGES IN DIVERSE CONTEXTS
- INCORPORATING CULTURALLY RELEVANT MATERIALS AND INSTRUCTION
- Providing support for language transfer and cross-linguistic influence
- UTILIZING ASSESSMENTS THAT RECOGNIZE BILINGUAL LANGUAGE DEVELOPMENT PATTERNS

FREQUENTLY ASKED QUESTIONS

HOW DOES BILINGUALISM IMPACT COGNITIVE FLEXIBILITY?

BILINGUALISM ENHANCES COGNITIVE FLEXIBILITY BY ALLOWING INDIVIDUALS TO SWITCH BETWEEN LANGUAGES, WHICH IMPROVES THEIR ABILITY TO ADAPT TO NEW AND CHANGING TASKS OR ENVIRONMENTS.

IN WHAT WAYS DOES BILINGUALISM INFLUENCE EXECUTIVE FUNCTION?

BILINGUAL INDIVIDUALS OFTEN SHOW IMPROVED EXECUTIVE FUNCTIONS, SUCH AS BETTER ATTENTION CONTROL, PROBLEM-SOLVING SKILLS, AND WORKING MEMORY, DUE TO THE CONSTANT MANAGEMENT OF TWO LANGUAGE SYSTEMS.

DOES BILINGUALISM AFFECT THE ONSET OF DEMENTIA OR COGNITIVE DECLINE?

RESEARCH INDICATES THAT BILINGUALISM CAN DELAY THE ONSET OF DEMENTIA AND COGNITIVE DECLINE BY PROVIDING A COGNITIVE RESERVE THAT HELPS MAINTAIN BRAIN FUNCTION LONGER DESPITE AGING OR NEUROLOGICAL DISEASES.

HOW DOES EARLY BILINGUALISM DIFFER FROM LATE BILINGUALISM IN TERMS OF COGNITIVE BENEFITS?

EARLY BILINGUALISM, ACQUIRED DURING CHILDHOOD, GENERALLY LEADS TO MORE PROFOUND COGNITIVE BENEFITS AND GREATER LANGUAGE PROFICIENCY, WHILE LATE BILINGUALISM STILL OFFERS COGNITIVE ADVANTAGES BUT MAY NOT RESULT IN NATIVE-LIKE FLUENCY.

WHAT ROLE DOES CODE-SWITCHING PLAY IN BILINGUAL COGNITION?

CODE-SWITCHING, OR ALTERNATING BETWEEN LANGUAGES IN CONVERSATION, REFLECTS AND REINFORCES COGNITIVE CONTROL AND METALINGUISTIC AWARENESS, CONTRIBUTING TO ENHANCED MENTAL FLEXIBILITY AND MULTITASKING ABILITIES.

CAN BILINGUALISM INFLUENCE ACADEMIC ACHIEVEMENT AND LEARNING PROCESSES?

YES, BILINGUALISM CAN POSITIVELY INFLUENCE ACADEMIC ACHIEVEMENT BY IMPROVING METALINGUISTIC SKILLS, PROBLEM-SOLVING ABILITIES, AND CULTURAL AWARENESS, WHICH SUPPORT BETTER LEARNING OUTCOMES ACROSS SUBJECTS.

ADDITIONAL RESOURCES

1. BILINGUALISM: LANGUAGE AND COGNITION

THIS COMPREHENSIVE VOLUME EXPLORES THE COGNITIVE PROCESSES INVOLVED IN BILINGUALISM, COMBINING PERSPECTIVES FROM LINGUISTICS, PSYCHOLOGY, AND NEUROSCIENCE. IT ADDRESSES HOW BILINGUAL INDIVIDUALS MANAGE MULTIPLE LANGUAGES AND THE EFFECTS ON MEMORY, ATTENTION, AND EXECUTIVE FUNCTION. THE BOOK IS ESSENTIAL FOR UNDERSTANDING THE INTRICATE RELATIONSHIP BETWEEN LANGUAGE USE AND COGNITIVE DEVELOPMENT IN BILINGUALS.

- 2. THE BILINGUAL BRAIN: AND WHAT IT TELLS US ABOUT THE SCIENCE OF LANGUAGE BY ALBERT COSTA ALBERT COSTA DELVES INTO HOW THE BRAIN PROCESSES TWO OR MORE LANGUAGES, REVEALING INSIGHTS INTO COGNITIVE FLEXIBILITY AND NEURAL ORGANIZATION. THE BOOK DISCUSSES RESEARCH ON BILINGUALISM'S IMPACT ON BRAIN STRUCTURE AND FUNCTION, HIGHLIGHTING BENEFITS SUCH AS ENHANCED PROBLEM-SOLVING SKILLS. IT IS ACCESSIBLE TO BOTH SCHOLARS AND GENERAL READERS INTERESTED IN NEUROSCIENCE AND LANGUAGE.
- 3. FOUNDATIONS OF BILINGUAL EDUCATION AND BILINGUALISM BY COLIN BAKER
 A FOUNDATIONAL TEXT THAT PROVIDES A THOROUGH OVERVIEW OF BILINGUAL EDUCATION AND THE COGNITIVE ASPECTS OF BILINGUALISM. BAKER EXAMINES HOW BILINGUALISM INFLUENCES LANGUAGE ACQUISITION, COGNITIVE DEVELOPMENT, AND EDUCATIONAL OUTCOMES. THE BOOK SERVES AS A KEY RESOURCE FOR EDUCATORS, LINGUISTS, AND PSYCHOLOGISTS WORKING WITH BILINGUAL POPULATIONS.
- 4. Language and Cognition in Bilinguals and Multilinguals: An Introduction by John W. Schwieter This introductory book presents current theories and research on bilingual and multilingual cognition, emphasizing language processing and cognitive control. Schwieter discusses how managing multiple languages affects attention, memory, and executive function. It is particularly useful for students and researchers new to the field.
- 5. BILINGUAL MINDS: EMOTIONAL EXPERIENCE, EXPRESSION, AND REPRESENTATION EDITED BY ANETA PAVLENKO
 THIS EDITED VOLUME INVESTIGATES HOW BILINGUALISM SHAPES EMOTIONAL PROCESSING AND EXPRESSION ACROSS LANGUAGES.
 IT EXPLORES COGNITIVE AND AFFECTIVE DIMENSIONS OF LANGUAGE USE, INCLUDING HOW EMOTIONS ARE EXPERIENCED
 DIFFERENTLY IN EACH LANGUAGE. THE BOOK CONTRIBUTES TO UNDERSTANDING THE INTERPLAY BETWEEN LANGUAGE, COGNITION,
 AND EMOTION IN BILINGUALS.
- 6. THE COGNITIVE NEUROSCIENCE OF BILINGUALISM EDITED BY JUDITH F. KROLL AND ANNETTE M. B. DE GROOT A COLLECTION OF RESEARCH STUDIES FOCUSING ON THE NEURAL MECHANISMS UNDERLYING BILINGUAL LANGUAGE PROCESSING AND COGNITIVE CONTROL. THE EDITORS COMPILE INSIGHTS FROM BRAIN IMAGING AND PSYCHOLINGUISTIC EXPERIMENTS THAT REVEAL HOW BILINGUAL BRAINS MANAGE MULTIPLE LANGUAGES. THIS BOOK IS ESSENTIAL FOR THOSE INTERESTED IN THE SCIENTIFIC STUDY OF BILINGUAL COGNITION.
- 7. BILINGUALISM AND COGNITIVE CONTROL: A STATE OF THE ART REVIEW BY JUBIN ABUTALEBI AND DAVID GREEN THIS REVIEW SUMMARIZES CONTEMPORARY RESEARCH ON THE RELATIONSHIP BETWEEN BILINGUALISM AND COGNITIVE CONTROL FUNCTIONS SUCH AS INHIBITION, SWITCHING, AND MONITORING. THE AUTHORS DISCUSS EVIDENCE SUPPORTING THE COGNITIVE ADVANTAGES OF BILINGUALISM AS WELL AS ONGOING DEBATES. IT PROVIDES A CRITICAL PERSPECTIVE ON HOW BILINGUALISM INFLUENCES BRAIN FUNCTION.
- 8. Language Acquisition and Bilingualism: Essays in Honor of Kathryn A. Kohnert edited by Annick De Houwer and Lourdes Ortega

A COLLECTION OF ESSAYS THAT EXAMINE LANGUAGE ACQUISITION IN BILINGUAL CONTEXTS, FOCUSING ON COGNITIVE OUTCOMES AND LANGUAGE DEVELOPMENT PATTERNS. THE CONTRIBUTORS ADDRESS BOTH THEORETICAL AND APPLIED ASPECTS OF BILINGUALISM, INCLUDING EDUCATIONAL IMPLICATIONS. THIS VOLUME HONORS KOHNERT'S CONTRIBUTIONS TO UNDERSTANDING BILINGUAL LANGUAGE LEARNING AND COGNITION.

9. BILINGUALISM AND COGNITION BY FRAN? OIS GROSJEAN

FRAN? OIS GROSJEAN OFFERS AN INSIGHTFUL LOOK AT THE COGNITIVE ASPECTS OF BILINGUALISM, INCLUDING LANGUAGE PROCESSING, MENTAL REPRESENTATION, AND SOCIAL FACTORS. THE BOOK CHALLENGES COMMON MYTHS ABOUT BILINGUALISM AND PROVIDES EVIDENCE-BASED EXPLANATIONS OF HOW BILINGUAL INDIVIDUALS THINK AND COMMUNICATE. IT IS A CONCISE YET COMPREHENSIVE RESOURCE FOR THOSE INTERESTED IN BILINGUAL COGNITION.

Bilingualism Language And Cognition

Find other PDF articles:

 $\underline{https://staging.massdevelopment.com/archive-library-508/pdf?docid=aah15-5360\&title=medical-assistant-online-training-free.pdf}$

bilingualism language and cognition: Language and Cognition in Bilinguals and Multilinguals Annette M.B. de Groot, 2011-04-27 Psycholinguistics - the field of science that examines the mental processes and knowledge structures involved in the acquisition, comprehension, and production of language - had a strong monolingual orientation during the first four decades following its emergence around 1950. The awareness that a large part of mankind speaks more than one language - that this may impact both on the way each individual language is used and on the thought processes of bilinguals and multilinguals, and that, consequently, our theories on human linguistic ability and its role in non-linguistic cognition are incomplete and, perhaps, false - has led to a steep growth of studies on bilingualism and multilingualism since around 1995. This textbook introduces the reader to the field of study that examines language acquisition, comprehension and production from the perspective of the bilingual and multilingual speaker. It furthermore provides an introduction to studies that investigate the implications of being bilingual on various aspects of non-linguistic cognition. The major topics covered are the development of language in children growing up in a bilingual environment either from birth or relatively soon after, late foreign language learning, and word recognition, sentence comprehension, speech production, and translation processes in bilinguals. Furthermore, the ability of bilinguals and multilinguals to generally produce language in the intended language is discussed, as is the cognitive machinery that enables this. Finally, the consequences of bilingualism and multilingualism for non-linguistic cognition and findings and views regarding the biological basis of bilingualism and multilingualism are presented. The textbook's primary readership are students and researchers in Cognitive Psychology, Linguistics, and Applied Linguistics, but teachers of language and translators and interpreters who wish to become better informed on the cognitive and biological basis of bilingualism and multilingualism will also benefit from it.

bilingualism language and cognition: The Psycholinguistics of Bilingualism François Grosjean, Ping Li, 2012-10-25 The Psycholinguistics of Bilingualism presents a comprehensive introduction to the foundations of bilingualism, covering language processing, language acquisition, cognition and the bilingual brain. This thorough introduction to the psycholinguistics of bilingualism is accessible to non-specialists with little previous exposure to the field Introduces students to the methodological approaches currently employed in the field, including observation, experimentation, verbal and computational modelling, and brain imaging Examines spoken and written language processing, simultaneous and successive language acquisition, bilingual memory and cognitive effects, and neurolinguistic and neuro-computational models of the bilingual brain Written in an accessible style by two of the field's leading researchers, together with contributions from internationally-renowned scholars Featuring chapter-by-chapter research questions, this is an essential resource for those seeking insights into the bilingual mind and our current knowledge of the cognitive basis of bilingualism

bilingualism language and cognition: Bilingualism and Cognitive Control Ramesh Kumar Mishra, 2018-07-20 This thought-provoking monograph makes a multidisciplinary case for bilingualism as a possible enhancer of executive function, particularly cognitive control. Its central focus is the cognitive operations of the bilingual brain in processing two languages and whether they afford the brain a greater edge on neuroplasticity—in short, a cognitive advantage. Major issues and controversies in the debate are analyzed from cognitive neuroscience, psycholinguistic, and

integrative perspectives, with attention paid to commonly and rarely studied domains at work in bilingual processing. The author also pinpoints future areas for improved research such as recognizing the diversity of bilingualism, not simply in languages spoken but also in social context, as seen among immigrants and refugees. Included in the coverage: The evolution of bilingualism. What goes on in a bilingual mind? The core cognitive mechanisms. Cognitive advantage of bilingualism and its criticisms. Neuroscience of bilingualism. Bilingualism, context, and control. Attention, vision, and control in bilinguals. With its cogent takes on ongoing questions and emerging issues, Bilingualism and Cognitive Control is of immediate interest to bilingual researchers and practitioners interested in understanding the behavioral aspects and neurobiology of bilingualism and the dynamic character of the bilingual/multilingual/second language learner's mind, as well as the growing number of advanced undergraduate and graduate students interested in the psychology/psycholinguistics of bilingualism, bilingual cognitive psychology, cognitive science, and cognitive neuroscience.

bilingualism language and cognition: Bilingual Cognition and Language David Miller, Fatih Bayram, Jason Rothman, Ludovica Serratrice, 2018-02-15 This collection brings together leading names in the field of bilingualism research to celebrate the 25th anniversary of the Studies in Bilingualism series. Over the last 25 years the study of bilingualism has received a tremendous amount of attention from linguists, psychologists, cognitive scientists, and neuroscientists. The breadth of coverage in this volume is a testament to the many different aspects of bilingualism that continue to generate phenomenal interest in the scholarly community. The bilingual experience is captured through a multifaceted prism that includes aspects of language and literacy development in child bilinguals with and without developmental language disorders, language processing and mental representations in adult bilinguals across the lifespan, and the cognitive and neurological basis of bilingualism. Different theoretical approaches – from generative UG-based models to constructivist usage-based models – are brought to bear on the nature of bilingual linguistic knowledge. The end result is a compendium of the state-of-the-art of a field that is in constant evolution and that is on an upward trajectory of discovery.

bilingualism language and cognition: Understanding Language and Cognition through Bilingualism Gigi Luk, John A.E. Anderson, John G. Grundy, 2023-06-15 Bilingualism is a ubiquitous global phenomenon. Beyond being a language experience, bilingualism also entails a social experience, and it interacts with development and learning, with cognitive and neural consequences across the lifespan. The authors of this volume are world renowned experts across several subdisciplines including linguistics, developmental psychology, and cognitive neuroscience. They bring to light bilingualism's cognitive, developmental, and neural consequences in children, young adults, and older adults. This book honors Ellen Bialystok, and highlights her profound impact on the field of bilingualism research as a lifelong experience. The chapters are organized into four sections: The first section explores the complexity of the bilingual experience beyond the common characterization of "speaking multiple languages." The next section showcases Ellen Bialystok's earlier impact on psychology and education; here the contributors answer the question "how does being bilingual shape children's development?" The third section explores cognitive and neuroscientific theories describing how language experience modulates cognition, behavior, and brain structures and functions. The final section shifts the focus to the impact of bilingualism on healthy and abnormal aging and asks whether being bilingual can stave off the effects of dementia by conferring a "cognitive reserve."

bilingualism language and cognition: Studying Bilinguals François Grosjean, 2008-02-21 Written in a clear and informative style, this volume by a respected authority in the field will interest researchers and students in linguistics, language sciences, psychology, speech and language pathology, cognition, brain sciences, and sign language and the Deaf.--BOOK JACKET.

bilingualism language and cognition: Language and Bilingual Cognition Reader in Applied Linguistics Vivian Cook, Benedetta Bassetti, 2015-11-24 Focusing on bilinguals, this text provides a state-of-the-art overview of the relationship between language and cognition.

bilingualism language and cognition: <u>Bilingualism in Action</u> Luna Filipović, 2019-10-24 A new model of bilingualism unifying psycholinguistics and sociolinguistics that explains how multiple factors interact within and across bilingual minds.

bilingualism language and cognition: Bilingualism Across the Lifespan Wendy S. Francis, 2021-05-31 Bilingualism Across the Lifespan explores the opportunities and challenges that are inherent in conducting cognitive research in an increasingly global and multilingual society. Divided into three sections, the book highlights the multifaceted and complex nature of bilingualism. The first section focuses on what every cognitive psychologist ought to know about bilingualism: the impact of bilingualism on cognition across the lifespan, the idea that bilinguals are not a special case, and the importance of bilingualism in cognitive research beyond language. The second section focuses on challenges inherent in bilingual research: diversity of bilingual experience, the assessment of proficiency, and finding matched comparison groups and materials. Finally, the book considers opportunities that are created when bilingualism is incorporated into the cognitive research enterprise. It illustrates how researchers of bilingualism leverage theory, methodology, and findings from single-language research, incorporate uniquely bilingual processes or representations, and target populations of bilinguals that help to establish universal properties. Bringing together leading international contributors, the book provides the reader with a better understanding of the nature of bilingualism and bilingual research as it relates to human cognition. It will be an essential read for all researchers and upper-level students of bilingualism and cognitive psychology more generally.

bilingualism language and cognition: Bilingualism Across the Lifespan Elena Nicoladis, Simona Montanari, 2016-06-20 This book pioneers the study of bilingualism across the lifespan and in all its diverse forms. In framing the newest research within a lifespan perspective, the editors highlight the importance of considering an individual's age in researching how bilingualism affects language acquisition and cognitive development. A key theme is the variability among bilinguals, which may be due to a host of individual and sociocultural factors, including the degree to which bilingualism is valued within a particular context. Thus, this book is a call for language researchers, psychologists, and educators to pursue a better understanding of bilingualism in our increasingly global society.

bilingualism language and cognition: Handbook of Bilingualism Judith F. Kroll, Annette M. B. De Groot, 2009-02-16 How is language acquired when infants are exposed to multiple language input from birth and when adults are required to learn a second language after early childhood? How do adult bilinguals comprehend and produce words and sentences when their two languages are potentially always active and in competition with one another? What are the neural mechanisms that underlie proficient bilingualism? What are the general consequences of bilingualism for cognition and for language and thought? This handbook will be essential reading for cognitive psychologists, linguists, applied linguists, and educators who wish to better understand the cognitive basis of bilingualism and the logic of experimental and formal approaches to language science.

bilingualism language and cognition: Bilingualism in Development Ellen Bialystok, 2001-04-16 Bilingualism in Development is an examination of the language and cognitive development of bilingual children focusing primarily on the preschool years. It begins by defining the territory for what is included in bilingualism and how language proficiency can be conceptualized. Using these constraints, the discussion proceeds to review the research relevant to various aspects of children's development and assesses the role that bilingualism has in each. The areas covered include language acquisition, metalinguistic ability, literacy skill, and problem-solving ability. In each case, the performance of bilingual children is compared to that of similar monolinguals, and differences are interpreted in terms of a theoretical framework for cognitive development and processing. The studies show that bilingualism significantly accelerates children's ability to selectively attend to relevant information and inhibit attention to misleading information or competing responses. This conclusion is used as the basis for examining a set of related issues

regarding the education and social circumstances of bilingual children.

bilingualism language and cognition: <u>Bilingual Cognition</u> A. M. B. de Groot, 2011-04-27 The first introductory level textbook that comprehensively covers the psycholinguistic study of bilingualism and multilingualism, including traditional and brain-based approaches. Each chapter covers a key series of topics in clear, accessible language, and includes a description of the relevant methodological issues. It provides a valuable resources for students and researchers in psycholinguistics.

bilingualism language and cognition: Memory, Language, and Bilingualism Jeanette Altarriba, Ludmila Isurin, 2012-11-01 The relationship between memory and language and the topic of bilingualism are important areas of research in both psychology and linguistics and are grounded in cognitive and linguistic paradigms, theories and experimentation. This volume provides an integrated theoretical/real-world approach to second language learning, use and processing from a cognitive perspective. A strong international and interdisciplinary team of contributors present the results of various explorations into bilingual language processing, from recent advances in studies on bilingual memory to studies on the role of the brain in language processing and language forgetting. This is a strong yet balanced combination of theoretical/overview contributions and accounts of novel, original, empirical studies which will educate readers on the relationship between theory, cognitive experimentation and data and their role in understanding language learning and practice.

bilingualism language and cognition: Bilingualism and cognitive control Judith F. Kroll, Ingrid Christoffels, Teresa Bajo, Research on bilingual language processing reveals an important role for control processes that enable bilinguals to negotiate the potential competition across their two languages. The requirement for control that enables bilinguals to speak the intended language and to switch between languages has also been suggested to confer a set of cognitive consequences for executive function that extend beyond language to domain general cognitive skills. Many recent studies have examined aspects of how cognitive control is manifest during bilingual language processing, how individual differences in cognitive resources influence second language learning and performance, and the range of cognitive tasks that appear to be influenced by bilingualism. However, not all studies demonstrate a bilingual advantage in all tasks that tap into cognitive control. Indeed, many guestions are unanswered that are critical to our understanding of bilingual control: What aspects of cognitive control are enhanced for proficient bilinguals? How are individual differences in cognitive control related to language acquisition, proficiency, or professional translation skill? How does the language environment affect concurrent processing? How exactly does language control come about in tasks such as speech production, switching between languages, or translation? When and how does inhibitory processing support language control? The focus of this Research Topic is on executive control and bilingualism. The goal is to have a broad scope that includes all of these issues. We seek empirical contributions using different methodologies including behavioral, computational and neuroscience approaches. We also welcome theoretical contributions that provide detailed discussion of models or mechanisms that account for the relationship between bilingualism and cognitive control. We aim to provide a platform for new contributions that represent a state-of-the art overview of approaches to cognitive control in bilingualism. We hope that this Research Topic will enable the field to formulate more precise hypotheses and causal models on the relation between individual differences, cognitive control and bilingual language processing.

bilingualism language and cognition: Bilingualism, Executive Function, and Beyond Irina A. Sekerina, Lauren Spradlin, Virginia Valian, 2019-06-15 The study of bilingualism has charted a dramatically new, important, and exciting course in the 21st century, benefiting from the integration in cognitive science of theoretical linguistics, psycholinguistics, and cognitive psychology (especially work on the higher-level cognitive processes often called executive function or executive control). Current research, as exemplified in this book, advances the study of the effects of bilingualism on executive function by identifying many different ways of being bilingual, exploring the multiple facets of executive function, and developing and analyzing tasks that measure executive function.

The papers in this volume (21 chapters), by leading researchers in bilingualism and cognition, investigate the mechanisms underlying the effects (or lack thereof) of bilingualism on cognition in children, adults, and the elderly. They take us beyond the standard, classical, black-and-white approach to the interplay between bilingualism and cognition by presenting new methods, new findings, and new interpretations.

bilingualism language and cognition: Cognitive Perspectives on Bilingualism Monika Reif, Justyna A. Robinson, 2016-04-25 Only 15 years ago bilingualism was somewhat outside the main debates in cognitive linguistics. Cognitive linguistics had, to a large extent, taken for granted the fact that language is embodied in our experience. However, not much attention was given to questions of whether any changes to our language repertoire alter the way we perceive the world around us. A growing body of recent research suggests that one cannot understand the cognitive foundations of language without looking at bi- and multilingual speakers. In this vein, the present book aims to contribute to the existing debate of the relationship between language, culture and cognition by assessing differences and similarities between monolingual and bilingual language acquisition and use. In particular, it investigates the effect of conceptual-semantic and pragmatic properties of constructions on code choice and code switching, as well as the impact of bilingual and bicultural education on speakers' cognitive development. This collective volume systematises, reviews, and promotes a range of theoretical perspectives and research techniques that currently inform work across the disciplines of bilingualism and code switching.

bilingualism language and cognition: Growing Old with Two Languages Ellen Bialystok, Margot D. Sullivan, 2017-08-07 This collection brings together two areas of research that are currently receiving great attention in both scientific and public spheres: cognitive aging and bilingualism. With ongoing media focus on the aging population and the need for activities to forestall cognitive decline, experiences that appear effective in maintaining functioning are of great interest. One such experience is lifelong bilingualism. Moreover, research into the cognitive effects of bilingualism has increased dramatically in the past decade, making it an exciting area of study. This volume combines these issues and presents the most recent research and thinking into the effects of bilingualism on cognitive decline in aging. The contributors are all leading scholars in their field. The result is a state-of-the art collection on the effect of bilingualism on cognition in older populations for both healthy aging and aging with dementia. The papers will be of interest to researchers, students, and health professionals.

bilingualism language and cognition: Bilingualism Maya Libben, Mira Goral, Gary Libben, 2017-12-15 In the world today, bilingualism is more common than monolingualism. Thus, the default mental lexicon may in fact be the bilingual lexicon. More than ever, social and technological innovation have created a situation in which lexical knowledge may change dramatically throughout an individual's lifetime. This book offers a new perspective for the understanding of these phenomena and their consequences for the representation of words in the mind and brain. Contributing authors are leaders in the field who provide a re-analysis of key assumptions and a re-focusing of research. They bring new insights and new findings that advance the understanding of both bilingualism and the mental lexicon. This volume serves to generate new directions and advances in bilingualism research.

bilingualism language and cognition: The Study of Bilingual Language Processing Nan Jiang, 2023-03-15 This book offers a detailed account of the issues, models, and outcomes of research into the cognition of bilingualism. The first chapter identifies the most important characteristics of this research and its historical developments, before the main part of the book explores studies of four bilingual processing topics. The first of these is lexico-semantic representation and organization in bilinguals, which deals with how words and meanings are represented and connected in the bilingual mind. The second, cross-language priming, explores the bilingual lexicon by examining how exposure to words in one language may affect word recognition in another and leads to the discovery of an asymmetry in translation priming. The third topic is selective lexical access in bilinguals, which examines whether bilinguals can selectively activate one language while

suppressing the other, while the fourth is code switching, focussing on language control and language regulation mechanisms in bilinguals. The book concludes with a chapter that reviews research in three areas beyond lexical processing: autobiographical memory, the representation and interaction of syntactic knowledge, and the consequences of bilingualism. The volume demonstrates the theoretical significance and real-world practical implications of research into bilingual language processing, and will be a valuable resource for seminars and courses from advanced undergraduate level upwards.

Related to bilingualism language and cognition

Bilingualism | Language Acquisition, Cognitive Benefits & Education Bilingualism, Ability to speak two languages. It may be acquired early by children in regions where most adults speak two languages (e.g., French and dialectal German in Alsace)

Bilingualism in the Early Years: What the Science Says - PMC Bilingualism refers to the ability to use two languages in everyday life. Bilingualism is common and is on the rise in many parts of the world, with perhaps one in three people being bilingual or

What Is Bilingualism? - Raising Language Learners Bilingualism is the ability to speak and understand two languages proficiently. Millions of people worldwide possess this skill, reflecting diverse linguistic and cultural

Bilingual Brains, Better Outcomes?: The Benefits of Multilingual Bilingualism shapes minds, identities, and relationships. Research shows it's more than a "brain boost"—it's about connection and resilience

Bilingualism · Open Encyclopedia of Cognitive Science Bilingualism—broadly defined as a speaker's ability to use two (or more) languages (or dialects) in their everyday life—characterizes the language experience of a

What Is Bilingualism- types of Bilingualism - Globe Language Bilingualism isn't black and white—it's a spectrum. It includes immigrants, multilingual societies, Indigenous language revivalists, and professionals navigating global

What Is a Bilingual and What Are Different Types of Bilingualism? What does it mean to be bilingual? There are actually many kinds of bilingualism! Here are 6 different ways of being bilingual The benefits of being bilingual Viorica Marian, PhD, of Northwestern University, talks about why speaking multiple languages may have far-reaching cognitive benefits, how the bilingual brain processes language, and

BILINGUALISM Definition & Meaning - Merriam-Webster The meaning of BILINGUALISM is the ability to speak two languages

BILINGUALISM | **English meaning - Cambridge Dictionary** BILINGUALISM definition: 1. the fact of using or being able to speak two languages: 2. the fact or official policy of using. Learn more **Bilingualism** | **Language Acquisition, Cognitive Benefits** Bilingualism, Ability to speak two languages. It may be acquired early by children in regions where most adults speak two languages (e.g., French and dialectal German in Alsace)

Bilingualism in the Early Years: What the Science Says - PMC Bilingualism refers to the ability to use two languages in everyday life. Bilingualism is common and is on the rise in many parts of the world, with perhaps one in three people being bilingual or

What Is Bilingualism? - Raising Language Learners Bilingualism is the ability to speak and understand two languages proficiently. Millions of people worldwide possess this skill, reflecting diverse linguistic and cultural

Bilingual Brains, Better Outcomes?: The Benefits of Multilingual Bilingualism shapes minds, identities, and relationships. Research shows it's more than a "brain boost"—it's about connection and resilience

Bilingualism · Open Encyclopedia of Cognitive Science Bilingualism—broadly defined as a speaker's ability to use two (or more) languages (or dialects) in their everyday life—characterizes the language experience of a large

What Is Bilingualism- types of Bilingualism - Globe Language Bilingualism isn't black and white—it's a spectrum. It includes immigrants, multilingual societies, Indigenous language revivalists, and professionals navigating global

What Is a Bilingual and What Are Different Types of Bilingualism? What does it mean to be bilingual? There are actually many kinds of bilingualism! Here are 6 different ways of being bilingual The benefits of being bilingual Viorica Marian, PhD, of Northwestern University, talks about why speaking multiple languages may have far-reaching cognitive benefits, how the bilingual brain processes language, and how

BILINGUALISM Definition & Meaning - Merriam-Webster The meaning of BILINGUALISM is the ability to speak two languages

BILINGUALISM | **English meaning - Cambridge Dictionary** BILINGUALISM definition: 1. the fact of using or being able to speak two languages: 2. the fact or official policy of using. Learn more **Bilingualism** | **Language Acquisition, Cognitive Benefits & Education** Bilingualism, Ability to speak two languages. It may be acquired early by children in regions where most adults speak two languages (e.g., French and dialectal German in Alsace)

Bilingualism in the Early Years: What the Science Says - PMC Bilingualism refers to the ability to use two languages in everyday life. Bilingualism is common and is on the rise in many parts of the world, with perhaps one in three people being bilingual or

What Is Bilingualism? - Raising Language Learners Bilingualism is the ability to speak and understand two languages proficiently. Millions of people worldwide possess this skill, reflecting diverse linguistic and cultural

Bilingual Brains, Better Outcomes?: The Benefits of Multilingual Bilingualism shapes minds, identities, and relationships. Research shows it's more than a "brain boost"—it's about connection and resilience

Bilingualism · Open Encyclopedia of Cognitive Science Bilingualism—broadly defined as a speaker's ability to use two (or more) languages (or dialects) in their everyday life—characterizes the language experience of a

What Is Bilingualism- types of Bilingualism - Globe Language Bilingualism isn't black and white—it's a spectrum. It includes immigrants, multilingual societies, Indigenous language revivalists, and professionals navigating global

What Is a Bilingual and What Are Different Types of Bilingualism? What does it mean to be bilingual? There are actually many kinds of bilingualism! Here are 6 different ways of being bilingual The benefits of being bilingual Viorica Marian, PhD, of Northwestern University, talks about why speaking multiple languages may have far-reaching cognitive benefits, how the bilingual brain processes language, and

BILINGUALISM Definition & Meaning - Merriam-Webster The meaning of BILINGUALISM is the ability to speak two languages

BILINGUALISM | **English meaning - Cambridge Dictionary** BILINGUALISM definition: 1. the fact of using or being able to speak two languages: 2. the fact or official policy of using. Learn more **Bilingualism** | **Language Acquisition, Cognitive Benefits** Bilingualism, Ability to speak two languages. It may be acquired early by children in regions where most adults speak two languages (e.g., French and dialectal German in Alsace)

Bilingualism in the Early Years: What the Science Says - PMC Bilingualism refers to the ability to use two languages in everyday life. Bilingualism is common and is on the rise in many parts of the world, with perhaps one in three people being bilingual or

What Is Bilingualism? - Raising Language Learners Bilingualism is the ability to speak and understand two languages proficiently. Millions of people worldwide possess this skill, reflecting diverse linguistic and cultural

Bilingual Brains, Better Outcomes?: The Benefits of Multilingual Bilingualism shapes minds, identities, and relationships. Research shows it's more than a "brain boost"—it's about connection and resilience

Bilingualism · Open Encyclopedia of Cognitive Science Bilingualism—broadly defined as a speaker's ability to use two (or more) languages (or dialects) in their everyday life—characterizes the language experience of a large

What Is Bilingualism- types of Bilingualism - Globe Language Bilingualism isn't black and white—it's a spectrum. It includes immigrants, multilingual societies, Indigenous language revivalists, and professionals navigating global

What Is a Bilingual and What Are Different Types of Bilingualism? What does it mean to be bilingual? There are actually many kinds of bilingualism! Here are 6 different ways of being bilingual The benefits of being bilingual Viorica Marian, PhD, of Northwestern University, talks about why speaking multiple languages may have far-reaching cognitive benefits, how the bilingual brain processes language, and how

 $BILINGUALISM\ Definition\ \&\ Meaning\ -\ Merriam-Webster\ The\ meaning\ of\ BILINGUALISM\ is$ the ability to speak two languages

BILINGUALISM | English meaning - Cambridge Dictionary BILINGUALISM definition: 1. the fact of using or being able to speak two languages: 2. the fact or official policy of using. Learn more

Related to bilingualism language and cognition

Sign Language and Bilingualism (Psychology Today14y) Post written by François Grosjean. All language scientists have a wow moment in their profession. Mine was when I was introduced to sign language and to the world of the Deaf. I was simply overwhelmed

Sign Language and Bilingualism (Psychology Today14y) Post written by François Grosjean. All language scientists have a wow moment in their profession. Mine was when I was introduced to sign language and to the world of the Deaf. I was simply overwhelmed

Bilingualism Benefits Young and Old (Psychology Today2y) During a visit to the pediatrician, the nurse heard me speak with a foreign accent and told me to use only English with my child. She said speaking another language would be "confusing" and have

Bilingualism Benefits Young and Old (Psychology Today2y) During a visit to the pediatrician, the nurse heard me speak with a foreign accent and told me to use only English with my child. She said speaking another language would be "confusing" and have

Bilingualism is associated with better cognitive outcomes after stroke (Nature9y)

Bilingualism could protect against cognitive impairment after stroke, according to a new report published in Stroke. The study, which was conducted in Hyderabad, India, found a substantially reduced

Bilingualism is associated with better cognitive outcomes after stroke (Nature9y)

Bilingualism could protect against cognitive impairment after stroke, according to a new report published in Stroke. The study, which was conducted in Hyderabad, India, found a substantially reduced

Speaking two languages benefits the aging brain (Science Daily11y) New research reveals that bilingualism has a positive effect on cognition later in life. Findings show that individuals who speak two or more languages, even those who acquired the second language in

Speaking two languages benefits the aging brain (Science Daily11y) New research reveals that bilingualism has a positive effect on cognition later in life. Findings show that individuals who speak two or more languages, even those who acquired the second language in

Bilingualism and Attention: A Study of Balanced and Unbalanced Bilingual Deaf Users of American Sign Language and English (JSTOR Daily1y) Early deafness is thought to affect low-level sensorimotor processing such as selective attention, whereas bilingualism is thought to be strongly associated with higher order cognitive processing such

Bilingualism and Attention: A Study of Balanced and Unbalanced Bilingual Deaf Users of American Sign Language and English (JSTOR Daily1y) Early deafness is thought to affect low-level sensorimotor processing such as selective attention, whereas bilingualism is thought to be strongly associated with higher order cognitive processing such

Bilingualism no big deal for brain, researcher finds (Science Daily14v) There are many complicated theories on how the brain processes more than one language, but one researcher has found that how words sound provides enough information to distinguish which language a Bilingualism no big deal for brain, researcher finds (Science Daily14y) There are many complicated theories on how the brain processes more than one language, but one researcher has found that how words sound provides enough information to distinguish which language a Bilingualism acts as a cognitive reserve factor against dementia (EurekAlert!5y) The conclusions of a study carried out by Víctor Costumero, as the first author, Marco Calabria and Albert Costa (died in 2018), members of the Speech Production and Bilingualism (SPB) group at the Bilingualism acts as a cognitive reserve factor against dementia (EurekAlert!5v) The conclusions of a study carried out by Víctor Costumero, as the first author, Marco Calabria and Albert Costa (died in 2018), members of the Speech Production and Bilingualism (SPB) group at the Early Bilingualism Helps With Learning Languages Later in Life, Study Shows (Education Week8y) Bilingual people may be better equipped to learn new languages than those who only speak one language, according to a study published in the academic journal Bilingualism: Language and Cognition. The

Early Bilingualism Helps With Learning Languages Later in Life, Study Shows (Education Week8y) Bilingual people may be better equipped to learn new languages than those who only speak one language, according to a study published in the academic journal Bilingualism: Language and Cognition. The

Bilingualism May Aid Later-Life Cognition (Monthly Prescribing Reference11y) (HealthDay News) — Bilingualism may have a positive effect on later-life cognition, according to a study published online June 2 in the Annals of Neurology. Thomas H. Bak, MD, from the University of **Bilingualism May Aid Later-Life Cognition** (Monthly Prescribing Reference11y) (HealthDay News) — Bilingualism may have a positive effect on later-life cognition, according to a study published online June 2 in the Annals of Neurology. Thomas H. Bak, MD, from the University of

Back to Home: https://staging.massdevelopment.com