

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 1 : Thinking, the Covert, Language-Based Processes in the Brain

Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.

Barry In , at the height of US concern about the threat from international communism, President Eisenhower appointed a panel to make recommendations regarding covert political action as an instrument of foreign policy. The panel, named after its chairman, General Jimmy Doolittle, included the following statement in its report: It is now clear that we are facing an implacable enemy whose avowed objective is world domination by whatever means and at whatever costs. There are no rules in such a game. Hitherto acceptable norms of human conduct do not apply. If the US is to survive, longstanding American concepts of "fair play" must be reconsidered. We must develop effective espionage and counterespionage services and must learn to subvert, sabotage and destroy our enemies by more clever, more sophisticated means than those used against us. It may become necessary that the American people be made acquainted with, understand and support this fundamentally repugnant philosophy. But in the context of the times, it was consistent with several overlapping schools of thought in international affairs that formed the basis for many Cold War policies. The first was the "realist" tradition in international affairs, which traces its origins from the Greek historian Thucydides through the philosophies of Machiavelli, Hobbes, Spinoza and Rousseau to modern theorists such as Hans Morgenthau and Reinhold Neibuhr. Although realists differ significantly in their views, they tend to emphasize the primacy of power in international affairs, and to exclude morality from considerations of making foreign policy. Reinforcing the views of the early Cold War realists were the arguments of ideological crusaders who conceived of the struggle with communism as kind of holy war, as well as those of American nationalists who, like General Sherman, believed that "war is hell" and that the merciful thing is in fact to wage it ruthlessly. Members of these several groups supported the need for covert action against communism either because they believed that the exceptional circumstances of the times required it or because they judged that it was simply one of the methods that states used to struggle with each other. Indeed, although covert political action became an important tool of US policy America never completely abandoned its moral traditions. The threat of international communism, however, became a compelling rationale for covert action, to the extent that many operations needed no more specific justification. Thus the Cold War, and the perceived severity of the Soviet threat, made it possible for policymakers to ignore competing ethical considerations when they endorsed covert actions. This Cold War rationale began to crumble in the late s with popular opposition to the Vietnam War and the subsequent revelation in Congressional inquiries of abuses by the CIA. The result was that greater attention has been paid to the process of managing covert actions. Until recently, however, despite changes in decisionmaking and oversight mechanisms, the Soviet threat was a dominant consideration in most covert action decisions. Covert Action and the New World Order Since the dismantling of the Berlin Wall, the abortive coup in the Soviet Union, and the dissolution of the Soviet empire, the confluence of ideological, nationalist and realist thought that formed a compelling rationale for covert action in the early Cold War period has lost more validity. In a dangerous world, however, presidents probably will not eschew this particular element of foreign policy, even in a "new world order. What frame of reference, then, should replace the Cold War philosophy that has shaped covert action policy since the founding of the CIA? Although the ideological crusade, American nationalism and political realism dominated US thinking about international affairs in the immediate post-World War II era, there are other enduring philosophical traditions. One of the "rule-based" traditions has received greater attention in recent years. This is the natural law tradition, and in particular its rules regarding the use of force by states, which fall under the rubric of "Just War Theory. Just War Theory is in essence a set of guidelines for going to war the so-called jus ad bellum , and for the conduct of hostilities jus in bello. Aquinas specified three conditions for the decision to go to war:

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Aquinas formulated the principle as follows: There is nothing to hinder one act having two effects, of which one only is the intention of the agent, while the other is beside his intention. But moral acts receive their species from what is intended, not from what is beside the intention, as that is accidental. The conditions governing this, however, are held by most commentators to be exceedingly strict. For example, the action taken must not be evil in itself; the good effect, and not the evil effect, must be intended, and the good effect must not arise out of the evil effect, but both must arise simultaneously from the action taken. Currently, the majority school of thought appears to favor the view that the only justifiable cause for armed conflict is to repel aggression. Traditionally, however, there were two other acceptable causes: At least one former practitioner, William Colby, has argued that "a standard for selection of covert actions that are just can be developed by analogy with the longstanding efforts to differentiate just from unjust wars. Is it consistent with American values as we understand them? And will it make sense to the American people? It seems fair to conclude that the people would want the government to undertake covert actions only if: The action is approved by the President, after due deliberation within the Executive Branch and with the full knowledge and concurrence of appropriate members of the Congress. The intentions and objectives are clearly spelled out, reasonable, and just. There is a reasonable probability of success. The methods envisioned are commensurate with the objectives. Moreover, in conducting covert action, it is reasonable to presume that the American people would approve of methods that minimize physical, economic, or psychological injury to innocent people and that are appropriate to the threat and under firm US control. Those who advocate or approve such covert actions, however, bear the additional burden of demonstrating why they must be conducted covertly. As ethicist Sissela Bok has pointed out, every state requires a measure of secrecy to defend itself, but when secrecy is invoked citizens lose the ordinary democratic checks on those matters that can affect them most strongly. This makes it incumbent on those advocating such actions to take into account the consequences of possible public misunderstanding and international opprobrium. The Chile Case It would appear that a framework similar to the Just War Theory could be useful in evaluating covert actions that result in economic dislocation, distortion of political processes or manipulation of information, because these cause suffering or moral damage, as war causes physical destruction. In , President Kennedy established a hemispheric policy to promote the growth of democratic institutions, the Alliance for Progress. That same year, the President became convinced that the Chilean Christian Democratic Party shared his belief in democratic social reform and seemed to have the organizational competence to achieve their common goals. It lacked the resources, however, to compete with the extremist parties of the left and right. During , the CIA established relationships with key political parties in Chile, as well as propaganda and organizational mechanisms. In , the Special Group the interagency body charged with reviewing covert actions approved two CIA proposals to provide support to the Christian Democrats. The program was modeled on that conducted in Italy in the late s and s, and it was intended to strengthen center-democratic forces against the leftist challenge from Salvador Allende, who was supported by the Soviet Union and Cuba. When President Johnson succeeded Kennedy, he continued the covert subsidies, with the objective of making Chile a model of democracy, as well as preventing the nationalization by a leftist government of the Chilean components of American multinational corporations. The Chilean presidential election of came down to a battle between Allende and Eduardo Frei Montalva, a liberal Christian Democrat. The election was viewed with great alarm in Washington. The New York Times compared it to the Italian election of , when the communists had threatened to take over the country through the ballot box and the US had intervened covertly to support democratic parties. Similarly, in the Johnson administration intervened in Chile, according to the Church Committee Report, to prevent or minimize the influence of Chilean communists or Marxists in the government that would emerge from the election. Cord Meyer, a former CIA covert action manager, argues that the intervention was for the purpose of preserving the Chilean constitutional order. In considering the election operations, the Johnson administration used the established mechanism, the interagency Special Group. By , according to Professor Gregory Treverton, the Special Group had developed criteria for evaluating covert action proposals. There is no indication that the

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Congress approved these expenditures, or was even informed in detail of the operation. In addition, an interagency committee was set up in Washington to manage the operation, and it was paralleled by a group in the US Embassy in Santiago. Meyer contends that covert intervention on behalf of Christian Democratic candidates had wide support in the administration, and the Church Committee confirms that the covert action was decided upon at the highest levels of government. During the early s, the US pursued a dual-track policy in Chile, conducting covert action in support of broader, overt objectives. Overtly, the US undertook a variety of development programs, and Chile was chosen to become a showcase of such programs under the Alliance for Progress. Moreover, funding to support the Frei candidacy was funnelled overtly through the Agency for International Development, as well as secretly through the CIA. Frei also received covert aid from a group of American corporations known as the Business Group for Latin America. Thus, the US used a variety of mechanisms to assist Frei. Covert support apparently was justified by the US Government on the grounds that Frei would be discredited if it were known that even more substantial support was flowing from the US. That the covert action had a reasonable probability of success is evident from the outcome – Frei won a clear majority 56 percent of the vote. According to Church Committee records, a CIA post mortem concluded that the covert campaign had a decisive impact. It is not clear from the available records whether a calculation of the likelihood of success was a specific part of the decisionmaking process. According to Treverton, the CIA was required under Special Group procedures to make such an estimate, and it is likely that its view would have been optimistic, because by the mids the Agency had managed to penetrate all significant elements of the Chilean Government and political parties. In the operation, the CIA used virtually its entire arsenal of nonlethal methods: Funds were passed through intermediaries to the Christian Democrats for their own use. The CIA provided a consultant to assist the Christian Democrats in running an American-style campaign, which included polling, voter registration and get-out-the-vote drives. Political action operations, including polls and grassroots organizing, were conducted among slum dwellers, peasants, organized labor, and dissident Socialists. CIA-controlled assets placed propaganda in major Chilean newspapers and on radio, erected wall posters, passed out political leaflets, and organized demonstrations. According to the Church Committee, some of this propaganda used "scare tactics" to link Allende to Soviet and Cuban atrocities. Other assets manufactured "black propaganda," material falsely purporting to be from Allende and his supporters, and intended to discredit them. Paramilitary and other lethal methods were not used. Moreover, the Special Group turned down an offer from a group of American businessmen to provide funds for covert disbursement by the CIA. According to the Church Committee, the Group considered this "neither a secure nor an honorable way of doing business. As the elections approached, the US faced a dilemma. The principal architect of those views was Henry Kissinger, who as an academic had been a prominent member of the realist school. The conservative candidate, Jorge Alessandri, was not particularly attractive to the US, but there was even greater concern about an Allende victory. The CIA began to warn policymakers early in that an Allende victory was likely. In March , the Committee successor to the Special Group decided that the US would not support any particular candidate. Instead, it authorized the CIA to conduct a "spoiling operation," aimed at discrediting Allende through propaganda. The effort failed when Allende won a slim plurality in the 4 September election. Because no candidate won a clear majority, the election was referred to a joint session of Congress, which in the past had always endorsed the candidate who had received the highest popular vote. The joint session was set for 24 October Senior US officials maintained that their preoccupation with Allende was defensive, and aimed at allaying fears of a communist victory both abroad and at home. As Nixon noted in a New York Times interview: There was a great deal of concern expressed in and again in by neighboring South American countries that if Mr. Allende were elected president, Chile would quickly become a haven for Communist operatives who could infiltrate and undermine independent governments throughout South America. The Intelligence Community, however, held a more nuanced view. Regarding threats to US interests, we conclude that:

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 2 : How Thinking Works: 10 Brilliant Cognitive Psychology Studies Everyone Should Know - PsyB

Comment: The cover has visible markings and wear. The cover has curled corners. The pages show normal wear and tear. This is a ex library book, stickers and markings accordingly.

Through later work with electromyographic equipment, it became apparent that the muscular phenomena are not the actual vehicles of thinking; they merely facilitate the appropriate activities in the brain when an intellectual task is particularly exacting. These theorists insisted that thinking and speaking arise independently, although they acknowledged the profound interdependence of these functions. Following different approaches, three scholars—the 19th-century Russian physiologist Ivan Mikhailovich Sechenov; the American founder of behaviourism, John B. In other words, the elements are considered to be attenuated or curtailed variants of neuromuscular processes that, if they were not subjected to partial inhibition, would give rise to visible bodily movements. Sensitive instruments can indeed detect faint activity in various parts of the body other than the organs of speech. Such findings have prompted theories to the effect that people think with the whole body and not only with the brain, or that, in the words of the American psychologist B. Evident in the work of Watson and the American psychologist Clark L. Hull, it held that thinking depends on events in the musculature: There is, however, evidence that thinking is not prevented by administering drugs that suppress all muscular activity. Furthermore, it has been pointed out by researchers such as the American psychologist Karl S. Lashley that thinking, like other more-or-less skilled activities, often proceeds so quickly that there is not enough time for impulses to be transmitted from the central nervous system to a peripheral organ and back again between consecutive steps. So the centralist view—that thinking consists of events confined to the brain though often accompanied by widespread activity in the rest of the body—gained ground later in the 20th century. Nevertheless, each of these neural events can be regarded both as a response to an external stimulus or to an earlier neurally mediated thought or combination of thoughts and as a stimulus evoking a subsequent thought or a motor response. Ogden and Ivor A. Richards, and psychologists specializing in learning e. Hobart Mowrer, and Charles E. This treatment, favoured by psychologists of the stimulus-response S-R or neo-associationist current, contrasts with that of the various cognitivist or neorationalist theories. Rather than regarding the components of thinking as derivatives of verbal or nonverbal motor acts and thus subject to laws of learning and performance that apply to learned behaviour in general, cognitivists see the components of thinking as unique central processes, governed by principles that are peculiar to them. The school of Gestalt psychology holds the constituents of thinking to be of essentially the same nature as the perceptual patterns that the nervous system constructs out of sensory excitations. After the mid-century, analogies with computer operations acquired great currency; in consequence, thinking came to be described in terms of storage, retrieval, and transmission of items of information. What came to matter most was how events were combined and what other combinations might have occurred instead. The process of thought According to the classical empiricist-associationist view, the succession of ideas or images in a train of thought is determined by the laws of association. Although additional associative laws were proposed from time to time, two invariably were recognized. The law of association by contiguity states that the sensation or idea of a particular object tends to evoke the idea of something that has often been encountered together with it. The law of association by similarity states that the sensation or idea of a particular object tends to evoke the idea of something that is similar to it. The early behaviourists, beginning with Watson, espoused essentially the same formulation but with some important modifications. For them the elements of the process were conceived not as conscious ideas but as fractional or incipient motor responses, each producing its proprioceptive stimulus. Association by contiguity and similarity were identified by these behaviourists with the Pavlovian principles of conditioning and generalization. Hull held that one particular response will occur and overcome its competitors because it is associated both with the cue stimulus which may be the immediately preceding thought process or an external event and with the motivational condition

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

task, drive stimulus and is thus evoked with more strength than are elements associated only with the cue stimulus or the motivational condition. The German psychologist Otto Selz countered that in many situations this kind of theory would imply the occurrence of errors as often as correct answers to questions and thus was untenable. The correct answer is associated with the schema as a whole and not with its components separately. For them, the essence of thinking lay in sudden perceptual restructuring or reorganization, akin to the abrupt changes in appearance of an ambiguous visual figure. The Gestalt theory has had a deep and far-reaching impact, especially in drawing attention to the ability of the thinker to discover creative, innovative ways of coping with situations that differ from any that have been encountered before. This theory, however, has been criticized for underestimating the contribution of prior learning and for not going beyond rudimentary attempts to classify and analyze the structures that it deems so important. Later discussions of the systems in which items of information and intellectual operations are organized have made fuller use of the resources of logic and mathematics. Also important is a growing recognition that the essential components of the thought process, the events that keep it moving in fruitful directions, are not words, images, or other symbols representing stimulus situations; rather, they are the operations that cause each of these representations to be succeeded by the next, in conformity with restrictions imposed by the problem or aim of the moment. In thinking, however, the trials were said to take the form of internal responses imagined or conceptualized courses of action, directions of symbolic search ;once attained, a train of thinking that constitutes a solution frequently can be recognized as such without the necessity of implementation through action and sampling of external consequences. This kind of theory, popular among behaviourists and neobehaviourists, was stoutly opposed by the Gestalt school, whose insight theory emphasized the discovery of a solution as a whole and in a flash. The divergence between these theories appears, however, to represent a false dichotomy. On the other hand, even the trial-and-error behaviour of an animal in a simple selective-learning situation does not consist of a completely blind and random sampling of the behaviour of which the learner is capable. Rather, it consists of responses that very well might have succeeded if the circumstances had been slightly different. Newell, Simon, and the American computer scientist J. Means of ensuring that a solution will occur within a reasonable time, certainly much faster than by random hunting, include adoption of successive subgoals and working backward from the final goal the formula to be proved, the state of affairs to be brought about. Motivational aspects of thinking The problem to be taken up and the point at which the search for a solution will begin are customarily prescribed by the investigator for a subject participating in an experiment on thinking or by the programmer for a computer. Thus, prevailing techniques of inquiry in the psychology of thinking have invited neglect of the motivational aspects of thinking. Investigation has barely begun on the conditions that determine when the person will begin to think in preference to some other activity, what he will think about, what direction his thinking will take, and when he will regard his search for a solution as successfully terminated or abandon it as not worth pursuing further. In the views of the Gestalt school and of the British psychologist Frederic C. For computer specialists, the detection of a mismatch between the formula that the program so far has produced and some formula or set of requirements that define a solution is what impels continuation of the search and determines the direction it will follow. Neobehaviourism like psychoanalysis has made much of secondary reward value and stimulus generalizationâ€”i. The insufficiency of this kind of explanation becomes apparent, however, when the importance of novelty, surprise, complexity, incongruity, ambiguity , and uncertainty is considered. The motivational effects of such factors began receiving more attention in the middle of the 20th century, mainly because of the pervasive role they were found to perform in exploratory behaviour, play , and aesthetics. Their larger role in all forms of thinking has come to be appreciated and has been studied in relation to curiosity, conflict , and uncertainty.

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 3 : Overt vs Covert Behavior - Psychestudy

The Psychophysiology of Thinking: Studies of Covert Processes. Edited by F. J. McGuigan and R. A. Schoonover New York, Academic Press, Language English ISBN.

How experts think, the power of framing, the miracle of attention, the weird world of cognitive biases and more! Fifty years ago there was a revolution in psychology which changed the way we think about the mind. This metaphor has motivated psychologists to investigate the software central to our everyday functioning, opening the way to insights into how we think, reason, learn, remember and produce language. Here are 10 classic cognitive psychology studies that have helped reveal how thinking works.

How experts think Without experts the human race would be sunk. But what is it about how experts think which lets them achieve breakthroughs which we can all enjoy? The answer is in how experts think about problems, compared with novices. Novices tended to get stuck thinking about the surface details of the problem whereas experts saw the underlying principles that were operating. It was partly this deeper, abstract way of approaching problems that made the experts more successful.

Short-term memory lasts seconds Short-term memory is a lot shorter than many think. In fact it lasts about seconds. Participants had to try and remember and recall three-letter strings, like FZX. The visible faces of the cards show 3, 8, red and brown. Which card s must you turn over in order to test the truth of the proposition that if a card shows an even number on one face, then its opposite face is red? Our brains are not set up for this kind of formal logic.

The power of framing The way you frame a problem, argument or statement can have huge effects on how people perceive it. They dislike taking chances so much that even the whiff of negativity is enough to send people running for the hills. There was, they were told, a treatment, but it is risky. If you decided to use the treatment, here are the odds: But, when presented the problem this way: The way we think is heavily influenced by the terms in which issues are expressed.

Attention is like a spotlight We actually have two sets of eyes! "one set real and one virtual. People are using their virtual eyes all the time: It means we can notice things in the fraction of a second before our eyes have a chance to reorient. A beautiful demonstration of this was carried out in the s by Cherry He found that people could even distinguish the same voice reading two different messages at the same time.

The Cocktail Party Effect 7. If you take a toy duck and show it to a month-old infant, then put your hand under a cushion, leave the duck there and bring your hand out, the child will only look in your hand, almost never under the cushion. As the famous child psychologist Jean Piaget noted: It has learnt that things that are hidden from view can continue to exist. This is just one miracle amongst many in child development.

The McGurk effect The brain is integrating information from all our senses to produce our experience. Watch the following clip from a BBC documentary to see the effect in full. The sensation is quite odd: Implanting false memories People sometimes think of their memories as being laid down, then later either recalled or forgotten, with little change in the memories themselves between the two. In fact, the reality is much more complex and, in some cases, alarming. One of the most dramatic studies that demonstrated memories can be changed, or even implanted later, was carried out by Elizabeth Loftus. David Dunning and Justin Kruger found in their studies that people who are the most incompetent are the least aware of their own incompetence. At the other end of the scale, the most competent are most aware of their own shortcomings.

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 4 : Critical Thinking Studies | www.nxgvision.com

The Psychophysiology of Thinking: Studies of Covert Processes describes the relation between brain events and peripheral bodily phenomena in the context of psychological theory. This book is organized into six parts encompassing 14 chapters, which focus on higher mental processes.

The research behind critical thinking is rock solid. Study results, reported in the Journal of Personality and Social Psychology, were based on responses from adults living in the greater Pittsburgh metropolitan area. Creativity and Critical Thinking Creative Ideas 2. The study evaluated responses to various questionnaires and creativity tasks for students at the University of North Carolina at Greensboro. Based on the findings, the authors believe that creative idea generation may be heavily influenced by various factors related to fluid reasoning and critical thinking, such as working memory, the ability to focus on relevant aspects of the problem, and abstract thinking ability. Number of Patents 3. The authors interpret the findings as evidence that cognitive ability plays an essential role in innovation, and emphasize its importance for solving the scientific and technological problems that the world faces in the 21st century. Teacher Beliefs About Creativity 4. The K teachers studied on the other hand, tended to emphasize the original or novel component of creativity, and were seemingly unaware of the creativity component involving judging the appropriateness of creative outcomes. Teachers also tended to limit creative thinking to literary and artistic tasks rather than other domains e. The study focused on Nurse Educators across a western Canadian province. Nurse educators are registered nurses in leadership roles with a specific and formal role educating nursing students, clients, patients, or employees. As the authors note, having nurses with the critical thinking dispositions necessary to integrate research into practice will help meet the desired standard in healthcare today, evidence-based practice EBP , and ultimately make a significant contribution to overall patient and systems outcomes. Performance and Leadership Effectiveness 6. As reported in a recent review article in the journal Current Directions in Psychological Science, the vast body of accumulated knowledge about cognitive ability tests is clear: The power of these tests, the authors conclude, is that they predict both what an individual can do right now, as well the extent to which an individual is likely to learn and develop in the future. The authors propose that cognitive ability, which is highly related to critical thinking, has its effects by leading a person to think about possible consequences and outcomes before engaging in problem behaviors. The research focused on 1, police officers who were hired and studied for approximately 2 years. Biased Decision Making 8. The study of undergraduate students at a state university, found that students who scored high on a critical thinking assessment, made fewer errors associated with biased thinking in areas such as probabilistic and causal reasoning. The authors note that these biases "relate to important real-world decisions in domains such as personal finance, employment, health, and public policy," further highlighting the importance of critical thinking and its potential impact on decision quality in multiple areas. The study investigated work environments for RNs, across 12 teams within a bed, non-profit, tertiary care hospital located in the northeastern United States. The authors believed that these dispositions enable managers to effectively perform a range of behaviors related to positive staff perceptions, such as providing staff with guidance, support, and respect, and implementing fair processes. A recent study of 72 high school teachers in Hong Kong found that they believe critical thinking is an essential skill that should be part of the curriculum, but that more training is needed on how to teach critical thinking Stapleton, The study, published in Thinking Skills and Creativity, also found that many teachers were confused about the meaning of critical thinking, for example whether it was composed of skills e. The article also cited government polices from a range of countries showing that the concern about deficient critical thinking skills "is not confined to any one country or region, but appears to span education systems around the world. Researchers found that among high school students, large gains in critical thinking could be achieved by teaching specific critical thinking concepts, and using practice with varied examples of the concepts to facilitate application of learning to new situations. The

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

research tracked the progress of high school students in low income schools in Southern California. The research reported in the International Journal of Nursing Practice, found that strategies such as use of critical thinking questions designed to induce critical thought What would happen if? Both nurse educators and students provided very positive feedback on the program. The experiment, focused on 53 nursing students at a Midwestern US College, showed a greater increase in critical thinking scores for students assigned to receive 5 human patient scenarios, versus a group assigned to receive only 2. The author concludes that "development of the critical thinking skills essential for managing the complexities of the healthcare environment" is "best served by programs that allow time for discussion, debate, reflection, and engagement. In the study, teams where members tagged their ideas by briefly labeling how the ideas contributed to the discussion e.

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 5 : Managing Covert Political Action – Central Intelligence Agency

THINKING: STUDIES OF COVERT LANGUAGE PROCESSES. psychophysiological efforts to study cognitive processes and has moved to rectify it. Part 3 constitutes the major portion of the text; studies of thinking from the.

It is, as far as he knows, the only way of coming downstairs, but sometimes he feels there really is another way, if he only could stop and think of it. Milne, Christopher Robin Humans are proud of their ability to think but seldom know what thinking is. Thinking is rooted in a deep and innate understanding of how the world works, and thought structures are built from raw materials such as movement and language. Thinking is therefore story telling, a form of argument. If you want thinking to mean something else such as processing information, solving problems, making decisions or creating new ideas, then thinking is not a voluntary process that occurs in consciousness. Deep cognitive processes are about recognizing the relationships among events, making decisions, sequencing in spacetime, and problem solving. Nonverbal thinking is revealed in tool making, tool use, mimetic behavior, actions and simulations. The best way to problem solve is to examine the problem closely, talk about it, read about it, write about it, draw pictures and diagrams, make models and then wait. Each human has a built in query system and a problem-solver that operates in its own way, on its own schedule and delivers solutions to consciousness when it is ready. The solution to a problem or a creative new idea arises from an unknowable process, as a gift. Sometimes I wait many hours or even days before I understand new information or solve a problem. Big problems may take weeks or months to solve. New insights and paradigm shifts may occur after many years of struggling with wrong notions. My books consists of a long series of spontaneously arising ideas that I record soon after they pop up in my conscious mind.. Sometimes, a new idea makes old ideas obsolete and I have to change an entire text to accommodate the new understanding. The process of writing requires selftalk rehearsal and constant revision that is more or less spontaneous and evolutionary. Input from a large number of other humans is, of course, essential to good understanding of complex issues. I heard Marvin Minsky, the guru of artificial intelligence at MIT, claim at a digital arts conference many years ago, that he hated to repeat himself. Subsequently, I heard him repeat this idea at least twice. My guess is that Minsky made this claim numerous times over several decades. Life is a repetitive affair and most humans copy and repeat what they and others say and do with little or no modification over a lifetime. Alpha Nutrition is a trademark and a division of Environmed Research Inc. Understanding the human brain is essential to become a well-informed, modern citizen. Stephen Gislason MD, the author of the Human Brain, is a physician-writer who is good at making complex subjects more understandable. This is a book with important ideas, so be prepared to read and then keep the book as reference. Prices are listed in Canadian Dollars. Click book title center column to read topics from each book.

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 6 : School Psychology: Overt and covert behavior

THE PSYCHOPHYSIOLOGY OF THINKING Studies Of Covert Processes Item Preview Language English. THE PSYCHOPHYSIOLOGY OF THINKING - Studies of Covert Processes.

Lingualism[edit] Lingualism is the belief that the absence of language is the absence of thought. Other beliefs which are tied to Lingualism is the idea that having language crucially sharpens cognitive abilities. Arguments for lingualism include, holism of the mental, or the concept of belief which requires language. Thoughts are "sentences in the head", meaning they take place within a mental language. Two theories work in support of the language of thought theory. Causal syntactic theory of mental practices hypothesizes that mental processes are causal processes defined over the syntax of mental representations. Representational theory of mind hypothesizes that propositional attitudes are relations between subjects and mental representations. In tandem, these theories explain how the brain can produce rational thought and behavior. All three of these theories were inspired by the development of modern logical inference. The theory believes that mental representation has both a combinatorial syntax and compositional semantics. The claim is that mental representations possess combinatorial syntax and compositional semanticâ€”that is, mental representations are sentences in a mental language. The hypothesis has been largely abandoned by linguists as it has found very limited experimental support, at least in its strong form. For instance, a study showing that speakers of languages lacking a subjunctive mood such as Chinese experience difficulty with hypothetical problems has been discredited. Another study did show that subjects in memory tests are more likely to remember a given color if their mother language includes a word for that color; however, these findings do not necessarily support this hypothesis specifically. These cognitive systems lay the groundwork for cognitive capacities, like language faculty. He calls this belief constructivism , which supports that infants progress from simple to sophisticated models of the world through a change mechanism that allows an infant to build on their lower-level representations to create higher-level ones. This view opposes nativist theories about cognition being composed of innate knowledge and abilities. Lev Vygotsky believed that before two years of age, both speech and thought develop in differing ways along with differing functions. Thought then becomes verbal and speech then becomes rational. Beck , our emotions and behavior are caused by our internal dialogue. We can change ourselves by learning to challenge and refute our own thoughts, especially a number of specific mistaken thought patterns called " cognitive distortions ". Cognitive therapy has been found to be effective by empirical studies. In behavioral economics , according to experiments said to support the theoretical availability heuristic , people believe events that are more vividly described are more probable than those that are not. Simple experiments that asked people to imagine something led them to believe it to be more likely. The mere exposure effect may also be relevant to propagandistic repetition like the Big Lie. According to prospect theory , people make different economic choices based on how the matter is framed. Counting[edit] Different cultures use numbers in different ways. The Mundurucu culture for example, has number words only up to five. In addition, they refer to the number 5 as "a hand" and the number 10 as "two hands". Numbers above 10 are usually referred to as "many". In this system, quantities larger than two are referred to simply as "many". In larger quantities, "one" can also mean a small amount and "many" a larger amount. These are non-linguistic tasks that were analyzed to see if their counting system or more importantly their language affected their cognitive abilities. The results showed that they perform quite differently from, for example, an English speaking person who has a language with words for numbers more than two. For example, they were able to represent numbers 1 and 2 accurately using their fingers but as the quantities grew larger up to 10 , their accuracy diminished. This phenomenon is also called the "analog estimation", as numbers get bigger the estimation grows. Orientation[edit] Language also seems to shape how people from different cultures orient themselves in space. For instance, people from the Australian Aboriginal community Pormpuraaw define space relative to the observer. Instead of referring to location in terms like "left", "right",

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

"back" and "forward", most Aboriginal Nations, such as the Kuuk Thaayorre, use cardinal-direction terms "north, south, east and west. For example, speakers from such cultures would say "There is a spider on your northeast leg" or "Pass the ball to the south southwest". In fact, instead of "hello", the greeting in such cultures is "Where are you going? The consequence of using such language is that the speakers need to be constantly oriented in space, or they would not be able to express themselves properly, or even get past a greeting. Speakers of such languages that rely on absolute reference frames have a much greater navigational ability and spatial knowledge compared to speakers of languages that use relative reference frames such as English. In comparison with English users, speakers of languages such as Kuuk Thaayorre are also much better at staying oriented even in unfamiliar spaces and it is in fact their language that enables them to do this. Linguistic relativity and the color naming debate Language may influence color processing. Having more names for different colors, or different shades of colors, makes it easier both for children and for adults to recognize them. Hayakawa and others, which attempted to make language more precise and objective. It makes many basic observations of the English language, particularly pointing out problems of abstraction and definition. General semantics is presented as both a theoretical and a practical system whose adoption can reliably alter human behavior in the direction of greater sanity. It is considered to be a branch of natural science and includes methods for the stimulation of the activities of the human cerebral cortex, which is generally judged by experimentation. In this theory, semantics refers to the total response to events and actions, not just the words. The neurological, emotional, cognitive, semantic, and behavioral reactions to events determines the semantic response of a situation. This reaction can be referred to as semantic response, evaluative response, or total response. Its proponents claim that dogmatic thinking seems to rely on "to be" language constructs, and so by removing it we may discourage dogmatism. Neuro-linguistic programming, founded by Richard Bandler and John Grinder, claims that language "patterns" and other things can affect thought and behavior. It takes ideas from General Semantics and hypnosis, especially that of the famous therapist Milton Erickson. Many do not consider it a credible study, and it has no empirical scientific support. Advocates of non-sexist language including some feminists say that the English language perpetuates biases against women, such as using male-gendered terms such as "he" and "man" as generic. Many authors including those who write textbooks now conspicuously avoid that practice, in the case of the previous examples using words like "he or she" or "they" and "human race". Various other schools of persuasion directly suggest using language in certain ways to change the minds of others, including oratory, advertising, debate, sales, and rhetoric. The ancient sophists discussed and listed many figures of speech such as enthymeme and euphemism. The modern public relations term for adding persuasive elements to the interpretation of and commentary on news is called spin. Popular culture[edit] The Sapir-Whorf hypothesis is the premise of the science fiction film Arrival. The protagonist explains that "the Sapir-Whorf hypothesis is the theory that the language you speak determines how you think".

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 7 : The Psychophysiology of Thinking: Studies of Covert Processes | UVA Library | Virgo

an approach that focuses on the study of how covert mental processes, such as thinking, feeling, problem solving, perception, and the use of language, influence human behavior Gender bias in research a tendency for females and female-related issues to be underrepresented in research, whether psychological or otherwise.

Dispatches on the Future of Science Edited By Max Brockman Humans communicate with one another using a dazzling array of languages, each differing from the next in innumerable ways. Do the languages we speak shape the way we see the world, the way we think, and the way we live our lives? Do people who speak different languages think differently simply because they speak different languages? Does learning new languages change the way you think? Do polyglots think differently when speaking different languages? These questions touch on nearly all of the major controversies in the study of mind. They have engaged scores of philosophers, anthropologists, linguists, and psychologists, and they have important implications for politics, law, and religion. Yet despite nearly constant attention and debate, very little empirical work was done on these questions until recently. For a long time, the idea that language might shape thought was considered at best untestable and more often simply wrong. We have collected data around the world: What we have learned is that people who speak different languages do indeed think differently and that even flukes of grammar can profoundly affect how we see the world. Language is a uniquely human gift, central to our experience of being human. Appreciating its role in constructing our mental lives brings us one step closer to understanding the very nature of humanity. I often start my undergraduate lectures by asking students the following question: Most of them pick the sense of sight; a few pick hearing. Once in a while, a wisecracking student might pick her sense of humor or her fashion sense. Yet if you lose or are born without your sight or hearing, you can still have a wonderfully rich social existence. You can have friends, you can get an education, you can hold a job, you can start a family. But what would your life be like if you had never learned a language? Could you still have friends, get an education, hold a job, start a family? But are languages merely tools for expressing our thoughts, or do they actually shape our thoughts? Most questions of whether and how language shapes thought start with the simple observation that languages differ from one another. In Russian you would have to alter the verb to indicate tense and gender. Clearly, languages require different things of their speakers. Does this mean that the speakers think differently about the world? Do English, Indonesian, Russian, and Turkish speakers end up attending to, partitioning, and remembering their experiences differently just because they speak different languages? For some scholars, the answer to these questions has been an obvious yes. Just look at the way people talk, they might say. Certainly, speakers of different languages must attend to and encode strikingly different aspects of the world just so they can use their language properly. All our linguistic utterances are sparse, encoding only a small part of the information we have available. Believers in cross-linguistic differences counter that everyone does not pay attention to the same things: Unfortunately, learning a new language especially one not closely related to those you know is never easy; it seems to require paying attention to a new set of distinctions. Recently my group and others have figured out ways to empirically test some of the key questions in this ancient debate, with fascinating results. Follow me to Pormpuraaw, a small Aboriginal community on the western edge of Cape York, in northern Australia. I came here because of the way the locals, the Kuuk Thaayorre, talk about space. Instead of words like "right," "left," "forward," and "back," which, as commonly used in English, define space relative to an observer, the Kuuk Thaayorre, like many other Aboriginal groups, use cardinal-direction terms "north, south, east, and west" to define space. The normal greeting in Kuuk Thaayorre is "Where are you going? What enables them" in fact, forces them to do this is their language. Having their attention trained in this way equips them to perform navigational feats once thought beyond human capabilities. People rely on their spatial knowledge to build other, more complex, more abstract representations. Representations of such things as time, number, musical pitch, kinship relations, morality, and emotions have been shown to depend on how we think about

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

space. So if the Kuuk Thaayorre think differently about space, do they also think differently about other things, like time? This is what my collaborator Alice Gaby and I came to Pormpuraaw to find out. To test this idea, we gave people sets of pictures that showed some kind of temporal progression e. Their job was to arrange the shuffled photos on the ground to show the correct temporal order. We tested each person in two separate sittings, each time facing in a different cardinal direction. Hebrew speakers will tend to lay out the cards from right to left, showing that writing direction in a language plays a role. What will they do? The Kuuk Thaayorre did not arrange the cards more often from left to right than from right to left, nor more toward or away from the body. But their arrangements were not random: Instead of arranging time from left to right, they arranged it from east to west. That is, when they were seated facing south, the cards went left to right. When they faced north, the cards went from right to left. When they faced east, the cards came toward the body and so on. This was true even though we never told any of our subjects which direction they faced. The Kuuk Thaayorre not only knew that already usually much better than I did, but they also spontaneously used this spatial orientation to construct their representations of time. For example, English speakers tend to talk about time using horizontal spatial metaphors e. Mandarin speakers talk about time vertically more often than English speakers do, so do Mandarin speakers think about time vertically more often than English speakers do? Imagine this simple experiment. I stand next to you, point to a spot in space directly in front of you, and tell you, "This spot, here, is today. Where would you put yesterday? And where would you put tomorrow? But Mandarin speakers often point vertically, about seven or eight times more often than do English speakers. For example, English speakers prefer to talk about duration in terms of length e. For example, when asked to estimate duration, English speakers are more likely to be confused by distance information, estimating that a line of greater length remains on the test screen for a longer period of time, whereas Greek speakers are more likely to be confused by amount, estimating that a container that is fuller remains longer on the screen. Are these differences caused by language per se or by some other aspect of culture? How do we know that it is language itself that creates these differences in thought and not some other aspect of their respective cultures? One way to answer this question is to teach people new ways of talking and see if that changes the way they think. In one such study, English speakers were taught to use size metaphors as in Greek to describe duration e. Once the English speakers had learned to talk about time in these new ways, their cognitive performance began to resemble that of Greek or Mandarin speakers. This suggests that patterns in a language can indeed play a causal role in constructing how we think. Beyond abstract or complex domains of thought like space and time, languages also meddle in basic aspects of visual perception – our ability to distinguish colors, for example. Different languages divide up the color continuum differently: In Russian there is no single word that covers all the colors that English speakers call "blue. Does this distinction mean that siniy blues look more different from goluboy blues to Russian speakers? Indeed, the data say yes. Russian speakers are quicker to distinguish two shades of blue that are called by the different names in Russian i. For English speakers, all these shades are still designated by the same word, "blue," and there are no comparable differences in reaction time. The disappearance of the advantage when performing a verbal task shows that language is normally involved in even surprisingly basic perceptual judgments – and that it is language per se that creates this difference in perception between Russian and English speakers. When Russian speakers are blocked from their normal access to language by a verbal interference task, the differences between Russian and English speakers disappear. Even what might be deemed frivolous aspects of language can have far-reaching subconscious effects on how we see the world. In Spanish and other Romance languages, nouns are either masculine or feminine. In many other languages, nouns are divided into many more genders "gender" in this context meaning class or kind. For example, some Australian Aboriginal languages have up to sixteen genders, including classes of hunting weapons, canines, things that are shiny, or, in the phrase made famous by cognitive linguist George Lakoff, "women, fire, and dangerous things. It turns out that it does. In one study, we asked German and Spanish speakers to describe objects having opposite gender assignment in those two languages. The descriptions they gave differed in a way predicted by grammatical gender. For example, when

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

asked to describe a "key" – a word that is masculine in German and feminine in Spanish – the German speakers were more likely to use words like "hard," "heavy," "jagged," "metal," "serrated," and "useful," whereas Spanish speakers were more likely to say "golden," "intricate," "little," "lovely," "shiny," and "tiny. The same pattern of results also emerged in entirely nonlinguistic tasks. And we can also show that it is aspects of language per se that shape how people think: Look at some famous examples of personification in art – the ways in which abstract entities such as death, sin, victory, or time are given human form. How does an artist decide whether death, say, or time should be painted as a man or a woman? So, for example, German painters are more likely to paint death as a man, whereas Russian painters are more likely to paint death as a woman. The fact that even quirks of grammar, such as grammatical gender, can affect our thinking is profound. Such quirks are pervasive in language; gender, for example, applies to all nouns, which means that it is affecting how people think about anything that can be designated by a noun. I have described how languages shape the way we think about space, time, colors, and objects. Language is central to our experience of being human, and the languages we speak profoundly shape the way we think, the way we see the world, the way we live our lives. *Explorations in Cognitive Diversity* New York: Cambridge University Press,

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

Chapter 8 : Thought | www.nxgvision.com

Thinking is rooted in a deep and innate understanding of how the world works, and thought structures are built from raw materials such as movement and language. Selftalk is the only conscious mode of thinking and is so implicit in consciousness that "thinkers" fail to identify selftalk as their primary mode of thinking.

What is most thought-provoking in these thought-provoking times, is that we are still not thinking. The notion of the fundamental role of non-cognitive understanding in rendering possible thematic consciousness informed the discussion surrounding artificial intelligence AI during the 1950s and 1960s. Philosophy of mind is a branch of philosophy that studies the nature of the mind, mental events, mental functions, mental properties, consciousness and their relationship to the physical body, particularly the brain. The mind-body problem, i.e. Mind-body problem The mind-body problem concerns the explanation of the relationship that exists between minds, or mental processes, and bodily states or processes. The question, then, is how it can be possible for conscious experiences to arise out of a lump of gray matter endowed with nothing but electrochemical properties. However the apparently irresolvable mind-body problem is said to be overcome, and bypassed, by the embodied cognition approach, with its roots in the work of Heidegger, Piaget, Vygotsky, Merleau-Ponty and the pragmatist John Dewey. Therefore, functional analysis of the mind alone will always leave us with the mind-body problem which cannot be solved.

Neuron A neuron also known as a neurone or nerve cell is an excitable cell in the nervous system that processes and transmits information by electrochemical signaling. Neurons are the core components of the brain, the vertebrate spinal cord, the invertebrate ventral nerve cord and the peripheral nerves. A number of specialized types of neurons exist: Motor neurons receive signals from the brain and spinal cord that cause muscle contractions and affect glands. Interneurons connect neurons to other neurons within the brain and spinal cord. Neurons respond to stimuli, and communicate the presence of stimuli to the central nervous system, which processes that information and sends responses to other parts of the body for action. Neurons do not go through mitosis and usually cannot be replaced after being destroyed, although astrocytes have been observed to turn into neurons, as they are sometimes pluripotent.

Man thinking on a train journey Graffiti on the wall: Cognitive psychology Psychologists have concentrated on thinking as an intellectual exertion aimed at finding an answer to a question or the solution of a practical problem. Cognitive psychology is a branch of psychology that investigates internal mental processes such as problem solving, memory, and language. The school of thought arising from this approach is known as cognitivism, which is interested in how people mentally represent information processing. Cognitive psychologists use psychophysical and experimental approaches to understand, diagnose, and solve problems, concerning themselves with the mental processes which mediate between stimulus and response. They study various aspects of thinking, including the psychology of reasoning, and how people make decisions and choices, solve problems, as well as engage in creative discovery and imaginative thought. Cognitive theory contends that solutions to problems either take the form of algorithms: Cognitive science differs from cognitive psychology in that algorithms that are intended to simulate human behavior are implemented or implementable on a computer. In other instances, solutions may be found through insight, a sudden awareness of relationships. In developmental psychology, Jean Piaget was a pioneer in the study of the development of thought from birth to maturity. In his theory of cognitive development, thought is based on actions on the environment. That is, Piaget suggests that the environment is understood through assimilations of objects in the available schemes of action and these accommodate to the objects to the extent that the available schemes fall short of the demands. As a result of this interplay between assimilation and accommodation, thought develops through a sequence of stages that differ qualitatively from each other in mode of representation and complexity of inference and understanding. That is, thought evolves from being based on perceptions and actions at the sensorimotor stage in the first two years of life to internal representations in early childhood. Subsequently, representations are gradually organized into logical

DOWNLOAD PDF THINKING; STUDIES OF COVERT LANGUAGE PROCESSES

structures which first operate on the concrete properties of the reality, in the stage of concrete operations, and then operate on abstract principles that organize concrete properties, in the stage of formal operations. Thus, thought is considered as the result of mechanisms that are responsible for the representation and processing of information. In this conception, speed of processing, cognitive control, and working memory are the main functions underlying thought. In the neo-Piagetian theories of cognitive development, the development of thought is considered to come from increasing speed of processing, enhanced cognitive control, and increasing working memory. In *Character Strengths and Virtues*, Peterson and Seligman list a series of positive characteristics. One person is not expected to have every strength, nor are they meant to fully encapsulate that characteristic entirely. According to this model, the uncoordinated instinctual trends are encompassed by the "id", the organized realistic part of the psyche is the "ego", and the critical, moralizing function is the "super-ego". For Freud, the unconscious is the storehouse of instinctual desires, needs and psychic drives. While past thoughts and reminiscences may be concealed from immediate consciousness, they direct the thoughts and feelings of the individual from the realm of the unconscious. In a sense this view places the self in relationship to their unconscious as an adversary, warring with itself to keep what is unconscious hidden. If a person feels pain, all he can think of is alleviating the pain. Any of his desires, to get rid of pain or enjoy something, command the mind what to do. For Freud, the unconscious was a repository for socially unacceptable ideas, wishes or desires, traumatic memories, and painful emotions put out of mind by the mechanism of psychological repression. However, the contents did not necessarily have to be solely negative. In the psychoanalytic view, the unconscious is a force that can only be recognized by its effects—it expresses itself in the symptom.

Chapter 9 : Language and thought - Wikipedia

An approach that focuses on the study of how covert mental processes, such as thinking, feeling, problem solving, perception, and the use of language influence human behavior *Gender bias in research* *A tendency for females and female-related issues to be underrepresented in research, whether psychological or otherwise.*