

Bucher Free

Born in 1879 in Georgia, Stalin joined the Bolsheviks under Lenin in 1903 and became General Secretary of the Communist Party in 1922. These edited papers reassess the deeds, policies and legacy of a man who was responsible for innumerable deaths and untold human misery.

First published in 1998, this book sets out to shed sociological light upon the much under-researched realm of day-to-day child care practice. The text broke new ground when first published in 1987 and there have been few, if any, similar books that adopt an ethnographic approach to statutory child care practice. A second edition would still 'speak' to this rarely analysed occupational world. However, it would enjoy greater resonance when up-dated with practitioner viewpoints on the extent to which the findings remain pertinent today - which is likely to be the case. The book offers no conclusions other than it demonstrates that the 'invisible' world of practice cannot be readily understood or changed unless grasped through an interactionist sociology. The book is aimed at a social work/social welfare market as well as a sociology of profession/organization readership.

The papers in this book represent the proceedings of the Third International Symposium, which was held at the Addiction Research Foundation in Toronto in July, 1979. The purpose of this meeting was to bring together experts in the field from a wide variety of backgrounds in an attempt to gain some clarity and insight into the problems of alcohol and aldehyde metabolism. One might ask, "Why have such a meeting and a collection of research papers?" The answer is clear. The societal problem of alcoholism is, unlike many other health problems, growing instead of abating. Treatment efforts are largely ineffective (e.g., Griffith Edwards' classic work)', and fundamental research has yet to identify rational therapy based on sound mechanisms for this disease which effects 5% of the population severely and a much greater percentage to a lesser degree or indirectly. I have become impressed with the possibility that this lack of progress may be-in large part-due to a fundamental oversight on the part of investigators in the field of alcohol research. Simply, this possible problem could be stated as follows: an alcoholic is defined the same way as all other alcoholics. Attempts to identify possible subpopulations of alcoholics with defined and treatable diseases have been minimal. One could argue, however, that little evidence, with the exception of the gross psychiatric definitions (e.g., Jellinek) exists that there are different types of alcoholics. This argument is countered, first, by the dismal lack of progress made in this field by classifying an alcoholic equal to other alcoholics, and second, by analogy with cancer research. Now we know that "cancer" is only a generic term which defines a broad group of diseases, some caused by specific environmental chemicals, others by viruses, etc. Progress was only possible after suitable animal models were developed. More importantly, however, is the fact that once specific forms of the disease (i.e., once the diseases themselves were separated from the generic term) were identified, it was a relatively easy task to develop tests for early identification of some forms of the disease (e.g., the pap smear, etc.). This analogy can be extended to alcoholism's. First, let us assume that we have failed to develop tests for early identification of alcoholisms because the population is not carefully defined into subgroups. If we assume that subpopulations of alcoholics exist, we can again turn to the cancer literature for

examples of how to proceed. Much progress in this field rests. On the careful development of strains of animals which differ in their susceptibility to certain carcinogens. By analogy, distinct forms of alcoholisms could be identified by the use of genetics (e.g., Goodwin). First, distinct phenotypes need to be developed for certain characteristics suspected to be important in alcoholism. Second, a test specific for early identification of this specific phenotype can then be developed. Third, longitudinal studies must be performed in humans to see if the animal work can be applied to man. Implicit in this rationale is the thought that progress is not possible by studying alcoholics 20 years after primary changes had occurred, nor even by studying pre-alcoholics until specific sub forms of the disease are identified. Thus, the need for fundamental research into the mechanisms responsible for alcoholism is required. Unfortunately, alcohol research appears to suffer some of the stigma of the alcoholic.

Vii FOREWORD TO THE ENGLISH EDITION The lectures which I gave at the University of Chicago ix It is an unusual pleasure to present Professor Heisen in the spring of 1929 afforded me the opportunity of re berg's Chicago lectures on "The Physical Principles of viewing the fundamental principles of quantum theory. the Quantum Theory" to a wider audience than could Since the conclusive studies of Bohr in 1927 there have attend them when they were originally delivered. Pro been no essential changes in these principles, and many fessor Heisenberg's leading place in the development of new experiments have confirmed important consequences the new quantum mechanics is well recognized by those of the theory (for example, the Raman effect). But even who have been following its growth. It was in fact he who today the physicist more often has a kind of faith in the first saw clearly that in the older forms of quantum theory we were describing our spectra in terms of atomic mecha correctness of the new principles than a clear understa- nisms regarding which we could gain no definite knowl ing of them. For this reason the publication of these C- cago lectures in the form of a small book seems justified. edge, anq who first found a way to interpret (or at least describe) spectroscopic phenomena without assuming Since the formal mathematical apparatus of the quan the existence of such atomic mechanisms. Includes "Literature".

The papers collected in this volume (including a comprehensive introduction) investigate semantic and discourse-related aspects of subordination and coordination, in particular the relationship between subordination/coordination at the sentence level and subordination/coordination – or hierarchical/non-hierarchical organization – at the discourse level. The contributions in part I are concerned with central theoretical questions; part II consists of corpus-based cross-linguistic studies of clause combining and discourse structure, involving at least two of the languages English, German, Dutch, French and Norwegian; part III contains papers addressing specific – predominantly semantic – topics relating to German, English or French; and the papers in part IV approach the topic of subordination, coordination and rhetorical relations from a diachronic (Old Indic and Early Germanic) perspective. The book aims to contribute to a better understanding of information packaging on the sentence and text level related, within a particular language as well as cross-linguistically.

This book constitutes the proceedings of the 22nd International Conference on Developments in Language Theory, DLT 2018, held in Tokyo, Japan, in September 2018. The 39 full papers presented in this volume were carefully reviewed and selected

from 84 submissions. The papers cover the following topics and areas: combinatorial and algebraic properties of words and languages; grammars, acceptors and transducers for strings, trees, graphics, arrays; algebraic theories for automata and languages; codes; efficient text algorithms; symbolic dynamics; decision problems; relationships to complexity theory and logic; picture description and analysis, polyominoes and bidimensional patterns; cryptography; concurrency; cellular automata; bio-inspired computing; quantum computing.

Reflections on Biochemistry: In Honour of Severo Ochoa offers reflections on a wide range of topics relating to biochemistry, including energy metabolism, lipids and saccharides, regulation, nucleic acids and the genetic code, protein biosynthesis, and cell biology. The essays celebrate Severo Ochoa's outstanding contributions to biochemistry spanning nearly half a century. This book is comprised of 47 chapters and begins with a biography of Ochoa and his scientific work in the field of biochemistry, particularly his research on intermediary metabolism, RNA synthesis, and the genetic code. The discussion then turns to energy metabolism, photosynthesis, and fermentation, touching on topics such as the role of lactic acid in the development of biochemistry and the biosynthesis of cell components from acetate. The next section is devoted to lipids, saccharides, and cell walls and includes chapters that deal with biotin, sulfur biochemistry, and dipicolinic acid. Subsequent chapters explore hormonal regulation of adipose tissue lipolysis; the structural relationship between genes and enzymes; bacteriophages, colicins, and ribosomes; and cell biology and neurobiology. This monograph will be of interest to biochemists and students of biochemistry.

Towards the end of the twentieth century, those who advocated what became known as 'Political Correctness' rightly identified the ways in which marginalised groups were often disparaged in everyday speech. Casual expressions of homophobia, racism and sexism went from being commonplace to being rejected by the vast majority of the public over the course of just two decades. Since then, the victories of Political Correctness have formed the basis for a new intolerant mindset, one that seeks to move beyond simply reassessing the social contract of shared discourse to actively policing speech that is deemed offensive or controversial. Rather than confront bad ideas through discussion, it has now become common to intimidate one's detractors into silence through 'cancel culture', a ritual of public humiliation and boycotting which can often lead to the target losing his or her means of income. Free Speech is a defence of our right to express ourselves as we see fit, and takes the form of a letter to those who are unpersuaded. Taking on board legitimate concerns about how speech can be harmful, Andrew Doyle argues that the alternative - an authoritarian world in which our freedoms are surrendered to those in power - has far worse consequences. Scientific Review Papers, Talks, and Books Wissenschaftliche Übersichtsartikel, Vorträge und BücherSpringer-Verlag

A NEW YORK TIMES BESTSELLER Foreword by John Robbins, author of the international bestseller Diet for A New America In this book, Susan Peirce Thompson, Ph.D. shares the groundbreaking weight-loss solution based on her highly acclaimed Bright Line Eating Boot Camps. Rooted in cutting-edge neuroscience, psychology, and biology, Bright Line Eating explains why people who are desperate to lose weight fail again and again: it's because the brain blocks weight loss. Bright Line Eating (BLE) is a simple approach designed to reverse that process. By working with four "Bright

Lines"—clear, unambiguous, boundaries—Susan Peirce Thompson shows us how to heal our brain and shift it into a mode where it is ready to shed pounds, release cravings, and stop sabotaging our weight loss goals. Best of all, it is a program that understands that willpower cannot be relied on, and sets us up to be successful anyway. Through the lens of Susan's own moving story, and those of her Bright Lifers, you'll discover firsthand why traditional diet and exercise plans have failed in the past. You'll also learn about the role addictive susceptibility plays in your personal weight-loss journey, where cravings come from, how to rewire your brain so they disappear, and more. Susan guides you through the phases of Bright Line Eating—from weight loss to maintenance and beyond—and offers a dynamic food plan that will work for anyone, whether you're vegan, gluten-free, paleo, or none of the above. Bright Line Eating frees us from the obesity cycle and introduces a radical plan for sustainable weight loss. It's a game changer in a game that desperately needs changing.

This highly illustrated, step-by-step guide gives detailed instructions for dozens of different manipulation techniques, covering all levels of the spine, thorax, and pelvis. It also includes a helpful overview of the principles and theory of spinal manipulation and its use in clinical practice. The accompanying DVD contains video clips demonstrating the techniques described in the book. The new edition is a highly illustrated, step-by-step guide to 41 manipulation techniques commonly used in clinical practice. The book also provides the related theory essential for safe and effective use of manipulation techniques.

Rework shows you a better, faster, easier way to succeed in business. Most business books give you the same old advice: Write a business plan, study the competition, seek investors, yadda yadda. If you're looking for a book like that, put this one back on the shelf. Read it and you'll know why plans are actually harmful, why you don't need outside investors, and why you're better off ignoring the competition. The truth is, you need less than you think. You don't need to be a workaholic. You don't need to staff up. You don't need to waste time on paperwork or meetings. You don't even need an office. Those are all just excuses. What you really need to do is stop talking and start working. This book shows you the way. You'll learn how to be more productive, how to get exposure without breaking the bank, and tons more counterintuitive ideas that will inspire and provoke you. With its straightforward language and easy-is-better approach, Rework is the perfect playbook for anyone who's ever dreamed of doing it on their own. Hardcore entrepreneurs, small-business owners, people stuck in day jobs they hate, victims of "downsizing," and artists who don't want to starve anymore will all find valuable guidance in these pages.

"This book introduces you to R, RStudio, and the tidyverse, a collection of R packages designed to work together to make data science fast, fluent, and fun. Suitable for readers with no previous programming experience"--

In this compelling fantasy from a debut author, two young people must unite two warring cultures to banish the gods who destroyed their homeland. The Fallen Gods' War drove the remnants of a victorious army across the ocean in search of a new homeland. A thousand years later, the lifeless continent of Draegora is

largely forgotten, a symbol for the regiments that remain. Demons to some. Protectors to others. The power of their god-touched blades has forged a nation, though many resent their absolute control. Riam and Nola are unknowing descendants of the old world. When it's discovered they carry enough Draegoran blood to serve in the regiments, they are dragged away from their families to begin training. If they survive, they will be expected to enforce the laws of the covenant, to fight the Esharii tribesmen who raid along the border, and to be judge, jury, and executioners for those accused of crimes. For Riam, who welcomes his escape from an abusive father, the power to protect those who cannot defend themselves is alluring. For Nola, who wishes to return home, it is a betrayal by all she holds dear. Neither is given a choice...and neither may ever get the chance to serve. Lies of Descent begins an epic trilogy of fallen gods, betrayal, and magic—where dark motives often dwell within the true and just, and where the things most feared sometimes lead to salvation.

Im Alltag der imperativen Programmierung mit JavaScript bringen ungeplante Programmänderungen die gewohnten Abstraktionsmechanismen mitunter an ihre Grenzen. In diesem Buch wird ein Einstieg in die funktionale Programmierung dargeboten, deren Ansatz sich von den übrigen Arten der Programmierung unterscheidet und zu Unrecht als schwierig zu verstehen gilt. Aufbruch in die Welt der funktionalen Programmierung und der Gewürze. Es geht um die praktischen Grundlagen des funktionalen Programmierens und immer wieder Analogien zum Kochen eines Currys, denn gutes Programmieren ist wie gutes Kochen. Bekannte funktionale Programmiersprachen sind Lisp, Haskell oder ML. Oft entstammen diese einer akademischen Welt und sind oft nur in bestimmten Bereichen relevant. Im Gegensatz dazu verwendet dieses Buch JavaScript, die Basis der offenen Web-Standards. Die auffälligste Besonderheit bei der funktionalen Programmierung besteht darin, dass Programmfunktionen wie mathematische Funktionen oder auch Kochrezepte aufgefasst werden. Funktionen höherer Ordnung. Ein wichtiger Aspekt beim funktionalen Programmieren sind Funktionen höherer Ordnung. Dabei handelt es sich um Funktionen, die wiederum Funktionen als Argumente erhalten. Die Leserinnen und Leser lernen diese als Basisgrundlage kennen, um dann Funktionen höherer Ordnung auf Arrays anzuwenden. Anschließend führt die kulinarische Reise zu dem Thema Rekursion, bevor die event-basierte Programmierung und Continuations behandelt werden. Theorie der funktionalen Programmierung. In den ersten Kapiteln kann ohne Paradigmenwechsel und ohne das Erlernen einer neuen Programmiersprache in die funktionale Programmierung eingestiegen werden. In den anschließenden Kapiteln wird die theoretische Seite beleuchtet; zunächst das Lambda-Kalkül, die Grundlage fast aller funktionaler Programmiersprachen. Datentypen und Monaden, mit denen in rein funktionalen Programmiersprachen Seiteneffekte gekapselt werden, tauchen auf. Abgerundet wird alles durch einen Ausblick auf weitere Sprachen. In Nebenrollen haben Vindaloo-Curry, Auberginen und ein Mango-Lassi ihren Auftritt. Namaste und

guten Appetit!

Cholesterol: Chemistry, Biochemistry, and Pathology focuses on the properties, characteristics, compositions, and reactions of cholesterol. The selection first offers information on the history of cholesterol, including occurrence of cholesterol, early chemistry, related compounds, and analytical methods. The text then surveys the chemistry of cholesterol; methods of isolation and estimation of sterols; and distribution of sterols in organisms and in tissues. Discussions focus on quantitative determination of sterols, isolation procedures, distribution in animal tissues, sterols in plants, and sterol content of foodstuffs. The publication ponders on the physiology of the circulating cholesterol and lipoproteins and the biosynthesis of cholesterol. The manuscript then takes a look at the metabolism of cholesterol and other sterols in animal organisms; conversion of cholesterol to steroid hormones; microscopical localization of cholesterol in cells and tissues; and pathological manifestations of abnormal cholesterol metabolism. The selection is a valuable reference for readers interested in the properties and reactions of cholesterol.

ENGLISCH BEHERRSCHEN Dies ist das zweite Buch der äußerst beliebten Reihe ‚Englisch beherrschen mit 12 Themenbereichen‘. Viele Englischlerner auf mittlerem Niveau tendieren dazu, in die Falle zu geraten und immer wieder dieselben Vokabeln zu verwenden. Sie sprechen häufig über Themen, für die sie die Wörter kennen und vermeiden alles außerhalb ihres ‚Wohlfühlbereichs‘. Das Problem dabei ist, dass, selbst wenn sie ganz okay klingen, sie niemals besser werden. Wenn Sie sich wirklich verbessern möchten, müssen Sie in der Lage sein, über eine große Bandbreite an Themen zu sprechen. Hierfür müssen Sie das spezielle Vokabular, das mit diesen Themen in Verbindung steht, erlernen. Was können Sie mit diesem Buch erreichen? Sie werden mehr als 200 nützliche Wörter und Phrasen erlernen. Sie werden in der Lage sein, selbstsicher über 12 neue Themen zu sprechen. Dies wird Ihre englische Ausdrucksfähigkeit enorm verbessern. Alle neuen Wörter und Phrasen werden durch lustige und interessante Artikel und Geschichten eingeführt. Sie lernen also auf ganz natürliche Art. Alles wird in leicht verständlicher englischer Sprache erklärt, so dass Sie sich daran gewöhnen können, ‚auf Englisch zu denken‘. Es gibt 100e von Beispielsätzen, die Ihnen dabei helfen, zu verstehen, wie diese Wörter und Phrasen in der Alltagssprache verwendet werden. Ich habe für jedes Thema nützliche TV Serien und YouTube-Kanäle aufgelistet, um Ihnen bei der Übung Ihrer neuen Vokabeln zu helfen. Über welche Themen kann ich nach dem Lesen des Buches sprechen? Freundschaft Familie Persönlichkeit Fashion Tratsch Gesundheit Geld Soziale Medien Jobsuche Filme Alkohol Kindererziehung Bedenken Sie, dass dies alles Themen sind, über die sich Muttersprachler häufig unterhalten. Sie tendieren außerdem dazu, Fachausdrücke zu verwenden, also ist es wichtig, dass Sie auch diese kennen. Wenn Sie ein Sprecher auf mittlerem Niveau sind und sich wirklich verbessern wollen, dann ist dies ein guter Startpunkt für Sie. Beginnen Sie Ihre Reise zum fließenden Englischsprechen

noch heute, indem Sie auf den Button klicken.

See publisher description

Exploring current themes in modern computational and membrane protein biophysics, this book presents a comprehensive account of the fundamental principles underlying different methods and techniques used to describe the intriguing mechanisms by which membrane proteins function. The book discusses the experimental approaches employed to study these proteins, with chapters reviewing recent crucial structural advances that have allowed computational biophysicists to discern how these molecular machines work. The book then explores what computational methods are available to researchers and what these have taught us about three key families of membrane proteins: ion channels, transporters and receptors. The book is ideal for researchers in computational chemistry and computational biophysics.

Ellipsometry is a powerful tool used for the characterization of thin films and multi-layer semiconductor structures. This book deals with fundamental principles and applications of spectroscopic ellipsometry (SE). Beginning with an overview of SE technologies the text moves on to focus on the data analysis of results obtained from SE, Fundamental data analyses, principles and physical backgrounds and the various materials used in different fields from LSI industry to biotechnology are described. The final chapter describes the latest developments of real-time monitoring and process control which have attracted significant attention in various scientific and industrial fields.

"Medical Professionals and Their Work" conveys how medical people shape and organize the knowledge, perception, and experience of illness, as well as the substance of illness behavior, its management, and treatment. It is now well established that the unique symbolic equipment of the human animal is intimately connected with the functioning of the body. Freidson and Lorber believe that the proper understanding of specifically human rather than generally "animal" illness requires careful and systematic study of the social meanings surrounding illness. The content of social meanings varies from culture to culture and from one historical period to another. As important as the content of those social meanings, is the organization of groups who serve as carriers and, sometimes, creators. In the case of illness, a critical difference exists between those considered to be competent to diagnose and treat the sick and those excluded from this special privilege - a separation as old as the shaman or medicine-man. Such differences become solidified when the expert healer becomes a member of an organized, full-time occupation, sustained in monopoly over the work of diagnosis and treatment by the force of the state, and invested with the authority to make official designation of the social meanings to be ascribed to physical states. The medical profession in advanced nations is in a vise between professional needs and political demands. Its organization and its knowledge establish many of the conditions for being recognizably and legitimately ill, and the professional controls many of the circumstances of treatment. It thus plays a

central role in shaping the experience of being ill. With this fact of modern life in mind, this collection on the character of experts or professionals in general and of medicine as a profession in particular is uniquely fashioned.

In 2016, Google's Site Reliability Engineering book ignited an industry discussion on what it means to run production services today—and why reliability considerations are fundamental to service design. Now, Google engineers who worked on that bestseller introduce *The Site Reliability Workbook*, a hands-on companion that uses concrete examples to show you how to put SRE principles and practices to work in your environment. This new workbook not only combines practical examples from Google's experiences, but also provides case studies from Google's Cloud Platform customers who underwent this journey. Evernote, The Home Depot, The New York Times, and other companies outline hard-won experiences of what worked for them and what didn't. Dive into this workbook and learn how to flesh out your own SRE practice, no matter what size your company is. You'll learn: How to run reliable services in environments you don't completely control—like cloud Practical applications of how to create, monitor, and run your services via Service Level Objectives How to convert existing ops teams to SRE—including how to dig out of operational overload Methods for starting SRE from either greenfield or brownfield

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

Facebook has fundamentally changed how the world connects. No other company has played a greater role in the history of social networking online. Yet Facebook is no longer simply a social networking site or social media platform. Facebook is Facebook. Taina Bucher shows how Facebook has become a thing and an idea of its own: something that cannot be fully described using broader categories. Facebook has become so commonplace that most people have a conception of what it is, yet it increasingly defies categorization. If we want to understand Facebook's power in contemporary society and culture, Bucher argues, we need to start by challenging our

widespread conception of what Facebook is. Tracing the development and evolution of Facebook as a social networking site, platform, infrastructure and advertising company, she invites readers to consider Facebook anew. Contrary to the belief that nobody uses Facebook anymore, Facebook has never been more powerful. This timely book is important reading for students and scholars of media and communication, as well as anyone seeking to understand the Facebook phenomenon.

In this masterful account in the spirit of Bill Bryson and Ian Frazier, a longtime deep-sea diver masterfully weaves together the science and history of Earth's last remaining frontier: the sea. In an age of unprecedented exploration and innovation, our oceans remain largely unknown, and endlessly fascinating: full of mystery, danger, beauty, and inspiration. In *Oceans Deep* celebrates the daring pioneers who tested the limits of what the human body can endure under water: free divers able to reach 300 feet on a single breath; engineers and scientists who uncovered the secrets of decompression; teenagers who built their own diving gear from discarded boilers and garden hoses in the 1930s; saturation divers who lived under water for weeks at a time in the 1960s; and the trailblazing men who voluntarily breathed experimental gases at pressures sufficient to trigger insanity. Tracing both the little-known history and exciting future of how we travel and study the depths, Streever's captivating journey includes seventeenth-century leather-hulled submarines, their nuclear-powered descendants, a workshop where luxury submersibles are built for billionaire clients, and robots capable of roving unsupervised between continents, revolutionizing access to the ocean. In this far-flung trip to the wild, night-dark place of shipwrecks, trapped submariners, oil wells, innovative technologies, and people willing to risk their lives while challenging the deep, we discover all the adventures our seas have to offer -- and why they are in such dire need of conservation.

This book develops a theory of aesthetic fiction's impact on social identities.

Throughout five case studies, the author develops the argument that social identities are nurtured by and may even emerge through the conflict between different aesthetic expressions. As it creates affective structures, narrative fiction enables the development and formation of political and cultural identities. This work is part of a field of research that deals with the aesthetics of the everyday and the idea of social aesthetics. It argues for a central role for the arts in the creation and formation of modern society. Social identities emerge in response to aesthetic-sensual patterns of perception. Focusing on five West German public debates in the years 1950 to 1990, this work sheds light upon the transformation of social reality through the discursive adaption of art.

An introduction to a broad range of topics in deep learning, covering mathematical and conceptual background, deep learning techniques used in industry, and research perspectives. "Written by three experts in the field, *Deep Learning* is the only comprehensive book on the subject." —Elon Musk, cochair of OpenAI; cofounder and CEO of Tesla and SpaceX Deep learning is a form of machine learning that enables computers to learn from experience and understand the world in terms of a hierarchy of concepts. Because the computer gathers knowledge from experience, there is no need for a human computer operator to formally specify all the knowledge that the computer needs. The hierarchy of concepts allows the computer to learn complicated concepts by building them out of simpler ones; a graph of these hierarchies would be many layers

deep. This book introduces a broad range of topics in deep learning. The text offers mathematical and conceptual background, covering relevant concepts in linear algebra, probability theory and information theory, numerical computation, and machine learning. It describes deep learning techniques used by practitioners in industry, including deep feedforward networks, regularization, optimization algorithms, convolutional networks, sequence modeling, and practical methodology; and it surveys such applications as natural language processing, speech recognition, computer vision, online recommendation systems, bioinformatics, and videogames. Finally, the book offers research perspectives, covering such theoretical topics as linear factor models, autoencoders, representation learning, structured probabilistic models, Monte Carlo methods, the partition function, approximate inference, and deep generative models. Deep Learning can be used by undergraduate or graduate students planning careers in either industry or research, and by software engineers who want to begin using deep learning in their products or platforms. A website offers supplementary material for both readers and instructors.

This book expounds the theory of international arbitration law. It explains in easily accessible terms all the fundamentals of arbitration, from separability of the arbitration agreement to competence-competence over procedural autonomy, finality of the award, and many other concepts. It does so with a focus on international arbitration law and jurisprudence in Switzerland, a global leader in the field. With a broader reach than a commentary of Chapter 12 of the Swiss Private International Law Act, the discussion contains numerous references to comparative law and its developments in addition to an extensive review of the practice of international tribunals. Written by two well-known specialists - Professor Kaufmann-Kohler being one of the leading arbitrators worldwide and Professor Rigozzi one of the foremost experts in sports arbitration - the work reflects many years of experience in managing arbitral proceedings involving commercial, investment, and sports disputes. This expertise is the basis for the solutions proposed to resolve the many practical issues that may arise in the course of an arbitration. It also informs the discussion of the arbitration rules addressed in the book, from the ICC Arbitration Rules to the Swiss Rules of International Arbitration, the CAS Code, and the UNCITRAL Rules. While the book covers commercial and sports arbitrations primarily, it also applies to investment arbitrations conducted under rules other than the ICSID framework.

This book introduces formal grammar theories that play a role in current linguistic theorizing (Phrase Structure Grammar, Transformational Grammar/Government & Binding, Generalized Phrase Structure Grammar, Lexical Functional Grammar, Categorical Grammar, Head-?Driven Phrase Structure Grammar, Construction Grammar, Tree Adjoining Grammar). The key assumptions are explained and it is shown how the respective theory treats arguments and adjuncts, the active/passive alternation, local reorderings, verb placement, and fronting of constituents over long distances. The analyses are explained with German as the object language. The second part of the book compares these approaches with respect to their predictions regarding language acquisition and psycholinguistic plausibility. The nativism hypothesis, which assumes that humans possess genetically determined innate language-specific knowledge, is critically examined and alternative models of language acquisition are discussed. The second part then addresses controversial issues of

current theory building such as the question of flat or binary branching structures being more appropriate, the question whether constructions should be treated on the phrasal or the lexical level, and the question whether abstract, non-visible entities should play a role in syntactic analyses. It is shown that the analyses suggested in the respective frameworks are often translatable into each other. The book closes with a chapter showing how properties common to all languages or to certain classes of languages can be captured. This book is a new edition of <http://langsci-press.org/catalog/book/25> and <http://langsci-press.org/catalog/book/195>.

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