Ecological Psychoacoustics

John Neuhoff
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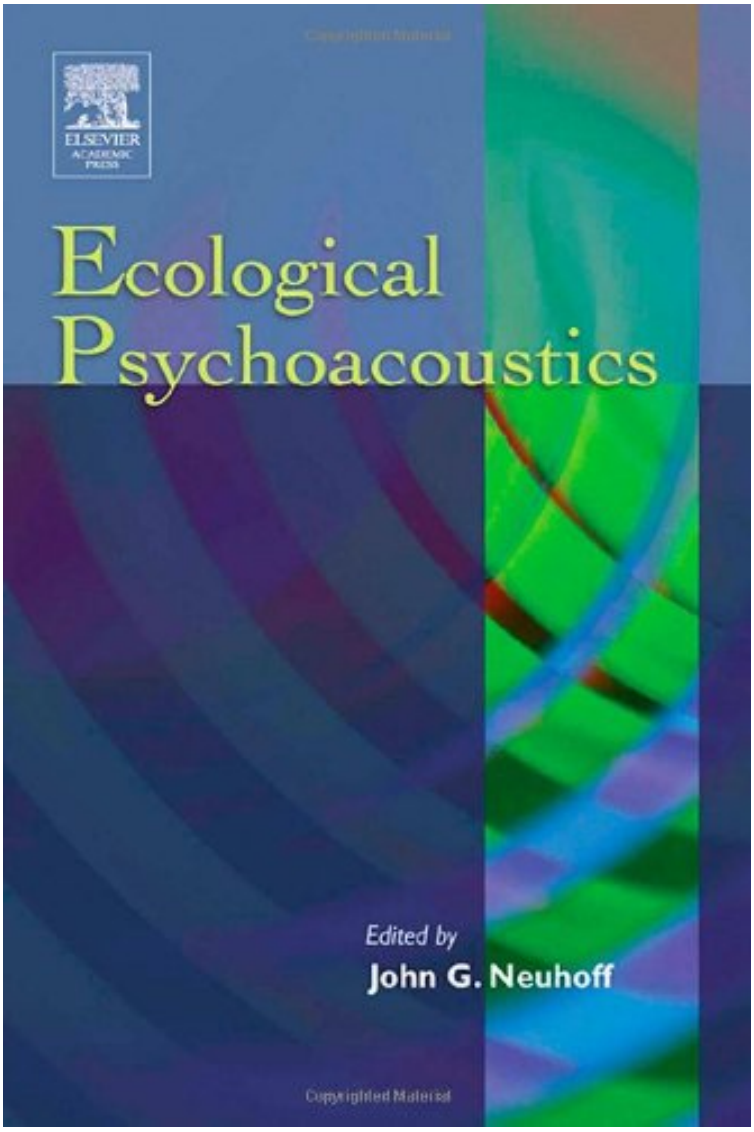

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John Neuhoff : Ecological Psychoacoustics before purchasing it in order to gage whether or not it would be worth my time, and all praised Ecological Psychoacoustics:

0 of 0 people found the following review helpful. Boring but informativeBy CustomerThis book is one of those research books that you either love or you hate. It presents a way of looking at research and how we handle our senses that broadens a researcher's perspective, but that does not neatly fall into the categories of research such as qualitative or quantitative. I enjoyed how it presented a more environmental approach to how research questions might be created or considered. A thoughtful book with many excellent examples, but not for everyone.4 of 6 people found the

following review helpful. Intended for consultation by experts and advanced studentsBy Midwest Book ReviewEcological Psychoacoustics is an scientific and technical assemblage of articles by a wide variety of learned authors, concerning ecological psychoacoustics, a branch of study that involves the complex interactions behind detecting and recognizing sounds. Intended for consultation by experts and advanced students in the field, essays in Ecological Psychoacoustics coversuch topics as auditory motion and localization, psychological assessment of noise, pitch and pitch structures, loudness, interacting perceptual dimensions, and more. Black-and-white diagrams help visualize complex scientific, acoustic, and mathematical concepts in this sober and scholarly anthology.

"Ecological Psychoacoustics" outlines recent advances in dynamic, cognitive, and ecological investigations of auditory perception and ties this work to findings in more traditional areas of psychoacoustics. The book illuminates some of the converging evidence that is beginning to emerge from these traditionally divergent fields, providing a scientifically rigorous, "real world" perspective on auditory perception, cognition, and action. In a natural listening environment almost all sounds are dynamic, complex, and heard concurrently with other sounds. Yet, historically, traditional psychoacoustics has examined the perception of static, impoverished stimuli presented in isolation. "Ecological Psychoacoustics" examines recent work that challenges some of the traditional ideas about auditory perception that were established with these impoverished stimuli and provides a focused look at the perceptual processes that are more likely to occur in natural settings. It examines basic psychoacoustics from a more cognitive and ecological perspective. It provides broad coverage including both basic and applied research in auditory perception; and coherence and cross referencing among chapters.

" Ecological Psychoacoustics outlines recent advances in dynamic, cognitive and ecological investigations of auditory perception..." -ADVANCES: FOR SPEECH-LANGUAGE PATHOLOGISTS AND AUDIOLOGISTS "Highly recommended." -CHOICE "This book will serve for no little time into the future as a valuable source of reference..." ???ACOUSTICS AUSTRALIA: THE JOURNAL OF THE AUSTRALIAN ACOUSTICAL SOCIETY "Neuhoff's groundbreaking book represents the work of innovative researchers..." ???Albert S. Bregman, Emeritus Professor, McGill University, Montreal, Canada "This book will move auditory theory squarely into the auditory world." ???Steve Handel, University of Tennessee, Knoxville, U.S.A. , .." Ecological Psychoacoustics will help define a new field of perception." ???William A. Yost, Associate Vice President for Research and Dean of The Graduate School, Loyola University Chicago, U.S.A. " Ecological Psychoacoustics will have a beneficial effect on the field..." ???Chris Darwin, Experimental Psychology, University of Sussex, Brighton, UK "Highly recommended" ???CHOICE, February 2005. , .."a very good source of information not only on ecological psychoacoustics but also on the subject of psychoacoustics in general" -Olga Umnova, APPLIED ACOUSTICS, July 2006""Ecological Psychoacoustics" outlines recent advances in dynamic, cognitive and ecological investigations of auditory perception..."-ADVANCES: FOR SPEECH-LANGUAGE PATHOLOGISTS AND AUDIOLOGISTS "Highly recommended."-CHOICE "This book will serve for no little time into the future as a valuable source of reference..."ACOUSTICS AUSTRALIA: THE JOURNAL OF THE AUSTRALIAN ACOUSTICAL SOCIETY "Neuhoff's groundbreaking book represents the work of innovative researchers..."Albert S. Bregman, Emeritus Professor, McGill University, Montreal, Canada "This book will move auditory theory squarely into the auditory world."Steve Handel, University of Tennessee, Knoxville, U.S.A. .,."Ecological Psychoacoustics will help define a new field of perception."William A. Yost, Associate Vice President for Research and Dean of The Graduate School, Loyola University Chicago, U.S.A. "Ecological Psychoacoustics will have a beneficial effect on the field..."Chris Darwin, Experimental Psychology, University of Sussex, Brighton, UK "Highly recommended" CHOICE, February 2005. .,."a very good source of information not only on ecological psychoacoustics but also on the subject of psychoacoustics in general"-Olga Umnova, APPLIED ACOUSTICS, July 2006From the Back Cover"If a robot were equipped with all the human capacities that we have come to understand through traditional auditory psychophysics, and set loose in a natural environment to learn something about it through the sounds that were made both by the robot and its environment, it would be able to function mainly as a rather imprecise tape recorder, except that it could detect the pitch, loudness, and location of isolated tones and noise bursts (if it happened to come upon any). As soon as it encountered more than one sound at a time, or had to interpret patterns of sound extending over time, or was required to coordinate its sound-based knowledge with that provided by its other senses, it would be lost. Neuhoff's groundbreaking book represents the work of innovative researchers who are trying to achieve a scientific understanding of the perceptual and cognitive processes that use sound to achieve an understanding of the environment. We have a long way to go before we have enough knowledge to equip a robot with a human's auditory skills, but the work reported in this volume represents an important beginning."mdash;Albert S. Bregman, Emeritus Professor, McGill University, Montreal, Canada"The articles in this book represent an important step in creating a coherent theory about perceiving naturally occurring auditory events and their relationship to things in the world. Even though each chapter has a traditional title, the content of each one is non-traditional, and each conveys the advantages and excitement of matching the acoustic characteristics of real world sounds to the physiological properties of the auditory system and to complex perceptual phenomena. All of the articles emphasize

that listening occurs in a context that includes information from other senses, requires focused attending, and involves hypothesis testing about probable causes. This book will move auditory theory squarely into the auditory world."mdash;Steve Handel, University of Tennessee, Knoxville, U.S.A."Ecological psychoacoustics pairs two fields of the study of auditory perception (ecological perception and psychoacoustics) that have rarely been paired. In fact, many in each field might argue that the pairing is a contradiction. However, the chapters in Ecological Psychoacoustics suggest many reasons why combining the rigor of psychoacoustics with the relevance of ecological perception could improve significantly the understanding of auditory perception in the world of real sound sources. Real-world sounds are complex, but they also are physically constrained. Psychoacoustics has produced a wealth of knowledge about sensory processing of simple sounds, especially by the auditory periphery. It is becoming clear that understanding the complex auditory scene of real-world sounds will require substantial new information about how the central auditory nervous system processes the complex sounds from real-world sources. Ecological Psychoacoustics provides many examples of how understanding and using information about the constraints of real-world sound sources may aid in discovering how the nervous system parses an auditory scene. Thus, Ecological Psychoacoustics will help define a new field of perception."mdash;William A. Yost, Associate Vice President for Research and Dean of The Graduate School, Loyola University Chicago, U.S.A.Ecological Psychoacoustics outlines recent advances in dynamic, cognitive, and ecological investigations of auditory perception and ties this work to findings in more traditional areas of psychoacoustics. The book illuminates some of the converging evidence that is beginning to emerge from these traditionally divergent fields, providing a scientifically rigorous, "real world" perspective on auditory perception, cognition, and action. In a natural listening environment almost all sounds are dynamic, complex, and heard concurrently with other sounds. Yet, historically, traditional psychoacoustics has examined the perception of static, impoverished stimuli presented in isolation. Ecological Psychoacoustics examines recent work that challenges some of the traditional ideas about auditory perception that were established with these impoverished stimuli and provides a focused look at the perceptual processes that are more likely to occur in natural settings.About the AuthorJohn Neuhoff plays the saxophone and is an assistant professor of psychology at The College of Wooster in Ohio. He is the founding chair of the Auditory Perception, Cognition and Action Meeting (APCAM), a member of the board of directors for the International Community of Auditory Display (ICAD), and a National Psychology Division Councilor for the Council for Undergraduate Research (CUR). His work on auditory perception has appeared in Nature, Science, and The Proceedings of the National Academy of Sciences, USA. His research has been supported by grants from the National Science Foundation and the Centers for Disease Control and Prevention. His saxophone career has yet to blossom.