

Science

**The Science of Consequences: How They Affect Genes, Change the Brain, and Impact Our World**

Susan M. Schneider

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The principles of rewards and consequences—along with stories of Pavlov’s dog or the rat in the maze—are such core assumptions in our culture, they’re almost cliché. Susan Schneider quickly moves beyond the cliché, however, in her engaging and fast-paced *The Science of Consequences: How They Affect Genes, Change the Brain, and Impact our World*.

A biopsychologist and naturalist who studied with B.F. Skinner, Schneider moves agilely from the worlds of genetics and neuroscience to animal behavior, education, and ethics. She layers insights from decades of research with personal anecdotes to ask increasingly provocative questions: Why do we typically prefer variable over predictable rewards? (For example, she cites the bird-watcher who spent fifteen years working to glimpse the rare Connecticut warbler but then felt a surprising mix of pleasure and disappointment once this longtime goal was accomplished.) Why is positive reinforcement more powerful than punishment? When are we willing to endure short-term pain for long-term positive consequences? Why and when do we procrastinate?

Schneider applies her insights in practical ways, considering how our actions may shape the behavior of others or how understanding signals and consequences can help us stick to a diet or overcome an addiction. In her final chapters, she further broadens her theme, considering how we can use the science of consequences to address environmental and other global issues.

Comprehensive but never ponderous, the book reserves nearly one hundred pages for a helpful glossary and extensive footnotes and bibliography. Schneider’s whimsical sense of humor enlivens these pages as well. For instance, she notes that eating dinner could be a matter of choosing positive consequences, or it could be a matter of simply avoiding the negative consequences of hunger, depending on how good a cook you are. The numerous illustrations also take a lighthearted approach—a mouse stares at the reader while eating a Cheerio and a

child who presumably has overcome her arachnophobia gently cups a tarantula in her hands.

Schneider has cleverly put to work the science of consequences in this book. From one chapter to the next, she deftly weaves a narrative that keeps the reader turning the page. This title is provocative, compelling, and rewarding, which is, of course, appropriate for a book about consequences.

*Kristen Rabe*