

COLOUR TO SOUND CONVERTER

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“In the Name of Allah, Most Gracious and Most Merciful”

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ABSTRACT

With the help of sophisticated behavioral brain-imaging and molecular genetic methods, researchers are coming closer to understanding what drives the extraordinary sensory condition called synesthesia.

The condition is not well known, in part because many synesthetes fear ridicule for their unusual ability. Often, people with synesthesia describe having been driven to silence after being derided in childhood for describing sensory connections that they had not realized were atypical.

For scientists, synesthesia presents an intriguing problem. Studies have confirmed that the phenomenon is biological, automatic and apparently unlearned, distinct from both hallucination and metaphor. The condition runs in families and is more common among women than men, researchers now know. But until recently, researchers could only speculate about the causes of synesthesia. Now, however, modern behavioral, brain-imaging and molecular genetic tools hold exciting promise for uncovering the mechanisms that drive synesthesia--and, researchers hope, for better understanding how the brain normally organizes perception and cognition.

Research suggests that about one in 2,000 people are synesthetes, and some experts suspect that as many as one in 300 people have some variation of the condition. The writer Vladimir Nabokov was reputedly a synesthete, as were the composer Olivier Messiaen and the physicist Richard Feynman.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The device can convert the colour to sound directly or function as a cassette player that plays through a tape of colours. The user can select between several instrument sounds, which were implemented using different methods to achieve realistic effects. This system can be used for both practical and entertainment purposes. Colour-blind people can use the device as a tool to determine the colour of objects.

Toddlers who are still in the process of learning the basic colours can use the device as a colourful, educational toy. In fact, people of all ages who are interested in music and colour will find this device to be a fun, interesting gadget.

1.2 Background study

Some individuals have a neurological condition called “sound-to-colour synesthesia,” or “chromesthesia,” in which they effortlessly and spontaneously experience their own personal light show while hearing music and other sounds.