



Color is in!

When You Have IRLLEN SYNDROME

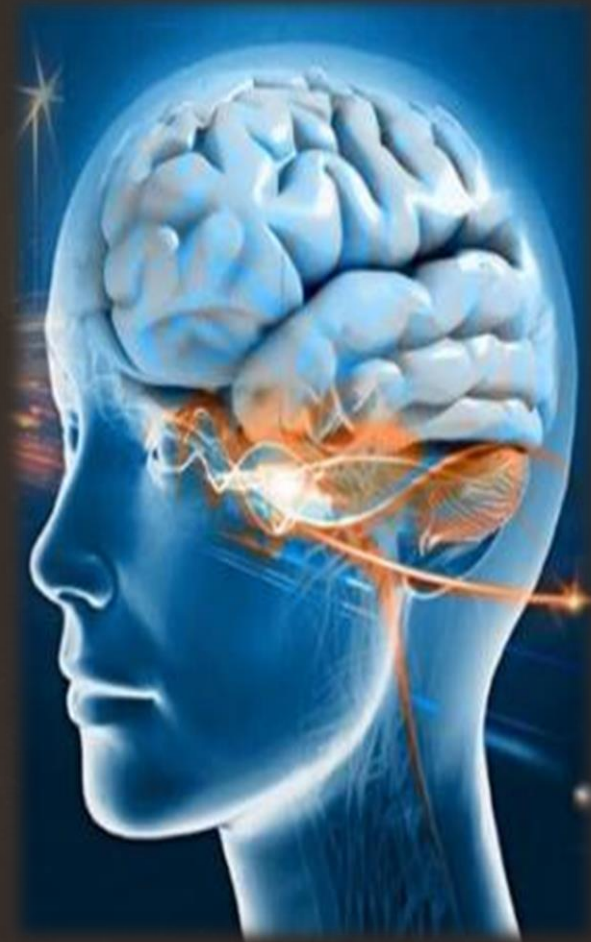
# What is Irlen Syndrome?

## Technically:

The brain is unable to process certain wavelengths of light

## In normal language:

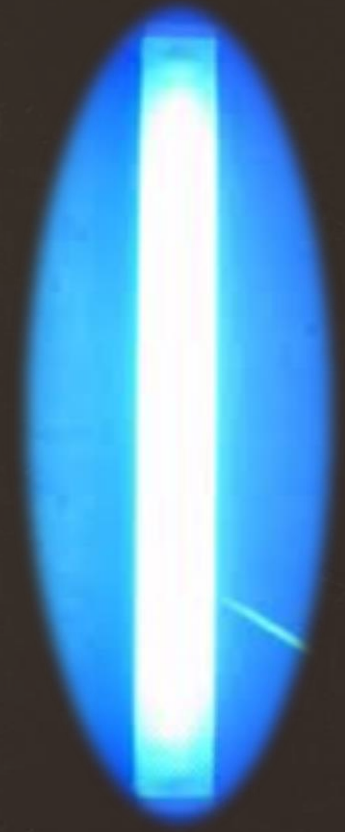
It's like the brain is allergic to certain kinds of light



# So What Happens?

Bright lights (like sunlight and fluorescent lights) can...

- Hurt your eyes
- Give you a headache
- Give you a stomach ache
- Make the words move when you're trying to read
- Make you feel jittery or anxious
- Make the words on the page hard to look at
- Make you blink or squint or rub your eyes
- Make it hard to concentrate
- And much more...



# A few quick facts

- Anyone can have Irlen Syndrome, not just people who have trouble reading
- It runs in families (your mom or dad gave it to you!)
- You can also get it after having a concussion or head injury
- Different people have different symptoms (I might get headaches when I read, and you might see words move on the page)
- It's not a problem with your eyes – it's a brain thing!

# What do people see?

## A few examples...

BY ANDREW I. SOSTEN  
AND RICHARD J. WYATT

**A**s any parent, grandparent, or baby-sitter knows, some babies are adaptable, placid, and regular in their habits, while others are difficult and unpredictable. Differences in temperament show up from the first day of life: some infants sleep very little, others sleep a lot; some infants are highly sensitive and cranky, others are quiet and unresponsive.

Since newborns have not been exposed to the world for long, environmental factors beyond the womb can hardly account for such differences in temperament. Rather, the differences must be largely a result of genetic influences. Yet there have been those, if only a few, who have attempted to induce different behavioral environments at birth to newborns' behavior.

We have based in research at the National Institute of Mental Health (NIMH) that behavioral differences in newborns are associated with an enzyme that circulates in both the blood and the brain, monoamine oxidase (MAO). By comparing the amounts of MAO in the blood of newborns with their performance on behavioral tests, we concluded that those with lower levels of MAO tended to be more excitable and restless than those with high MAO. The lower MAO newborns were also more irritable and performed better on items relating to motor functioning. In the brain, researchers believe that MAO influences behavior by breaking down the chemical neurotransmitters that carry messages between neurons. By preventing neurotransmitters from building up, MAO keeps the brain cells that would otherwise be activated. Low levels of MAO thus cause more sensitive, higher arousal in the brain.

We believe that some of our earlier research (NIMH) that found a connection between levels of MAO and adult behavior. There is a hypothesis that this connection had found that many with depression and disor-

sives had lower-than-normal amounts of MAO in their blood. In a study of normal adults, Monte Buchsbaum and his associates uncovered an association between low MAO and a variety of distinctive personality traits, including gregariousness, a tendency to drink and experiment with drugs, an active, varied sex life, and a preference for activities such as motorcycle riding.

We MAO present in the blood of infants in the same relative amounts.



and could it similarly influence their behavior? To find out, we first examined the blood of 23 newborns. Some after birth, blood is routinely taken from the part of the infant's umbilical cord that is attached to the placenta to determine blood type. We requested permission to analyze the remaining fetal blood.

We found approximately the same variation in the range of MAO levels among our 23 infants as among the 680 adults examined in previous studies. The MAO levels were also similar regardless of the type of delivery: most, cesarean, birth weight, or medication given the mother during delivery. Previous research has shown that in the blood, MAO is

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To measure amounts of MAO (MAO) in the blood of infants, we used a method of the serum plasma, which was

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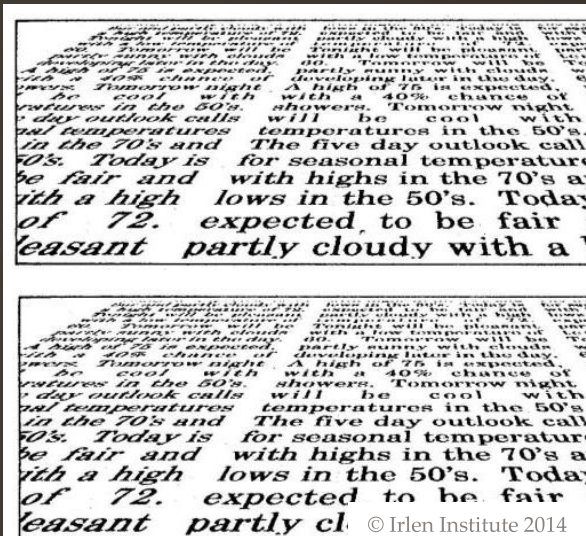
Blurry

Rivers

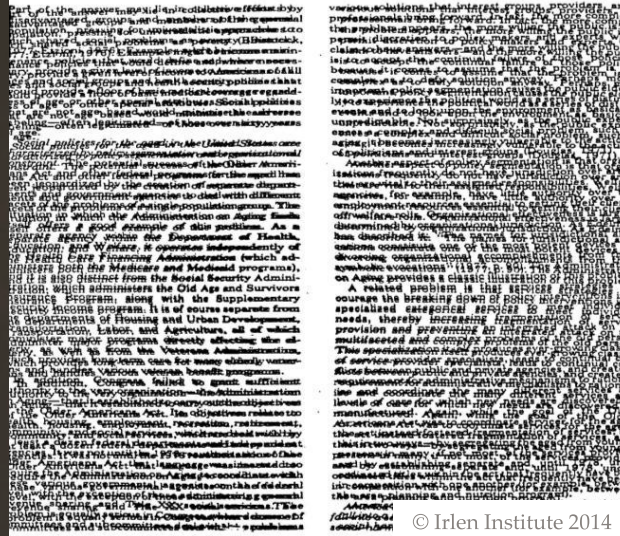
Seesaw

# What do people see?

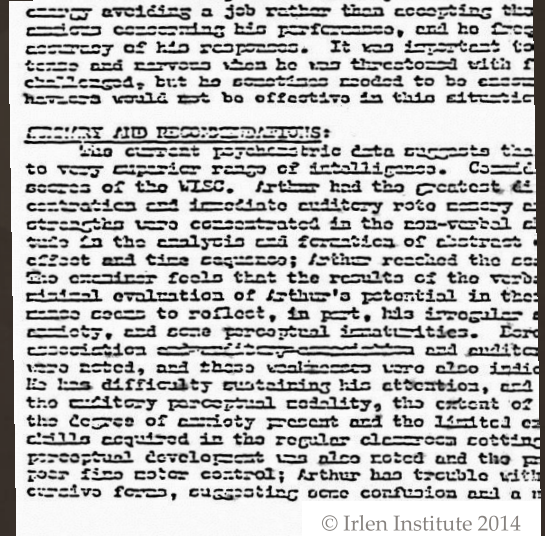
## A few more examples...



Star Wars



Swirl

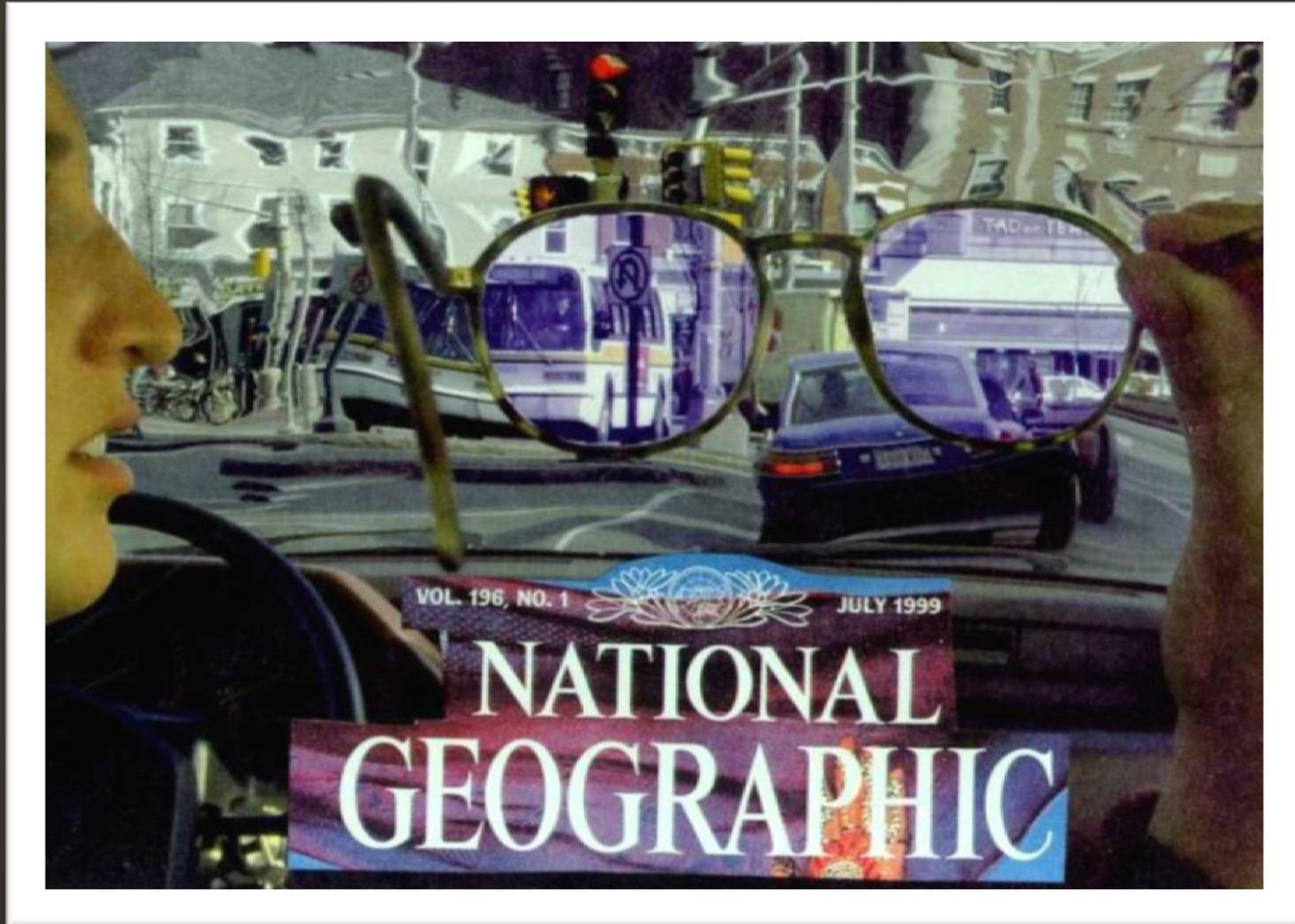


Washout

And there are lots more!

# What else happens?

Some people see distortions in their environment



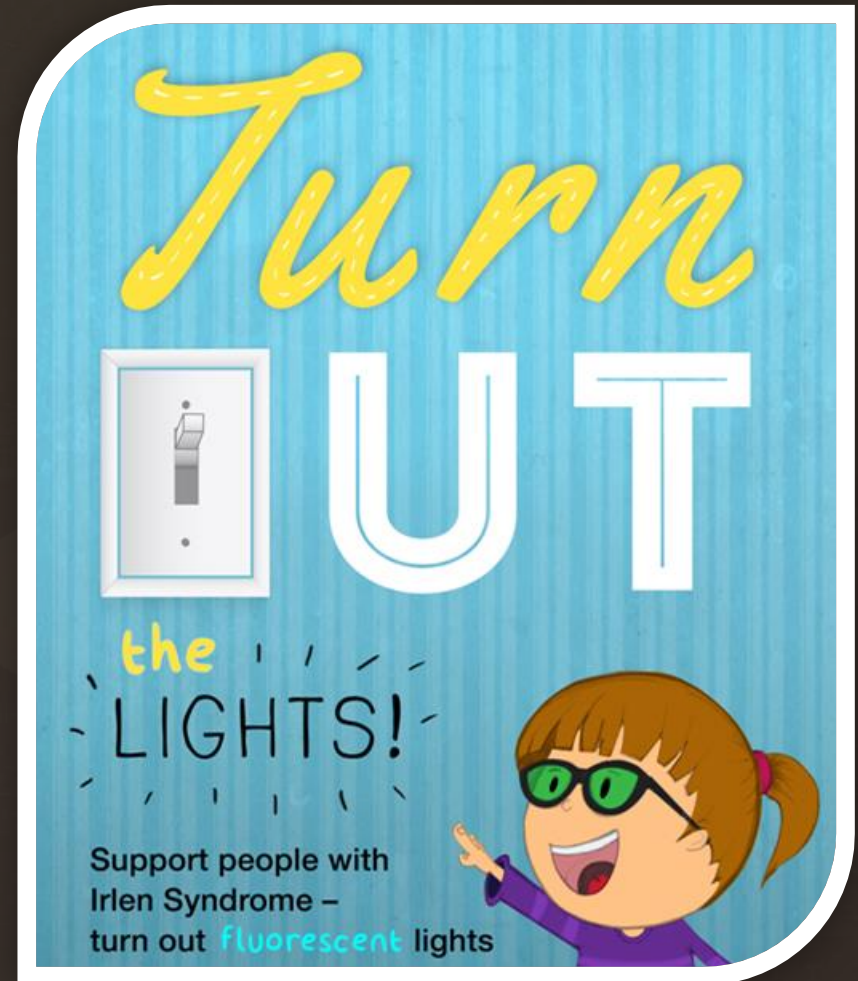
# What can you do about it?

- Wear **Irlen Spectral Filters** or **Colored Overlays** to protect your brain from the color it doesn't like



# What else can you do?

- Use colored paper to do your work
- Wear a hat to protect from light above
- Dim or turn out fluorescent and other bright lights (use old-fashioned incandescent light bulbs instead)



# How do I know if I have it?

## Reading Difficulties

- Skip words or lines
- Lose place
- Repeat lines
- Misread words
- Reading slow or choppy
- Reading gets harder the longer you read
- Trouble understanding what you read

## Discomfort

- Eyes: hurt, ache, burn
- Eyes: dry, sandy, scratchy, itchy, heavy
- Sleepy
- Headache, dizzy, nauseous
- More difficult to read with bright or fluorescent lights

# Try different colors

Is this text easier to see or read when  
the background is this color?

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# Where can I get more info?

**[www.irlensyndromefoundation.org](http://www.irlensyndromefoundation.org)**  
**or**  
**[www.irlen.com](http://www.irlen.com)**

For more information or to take a self-test

