



Dave Harris

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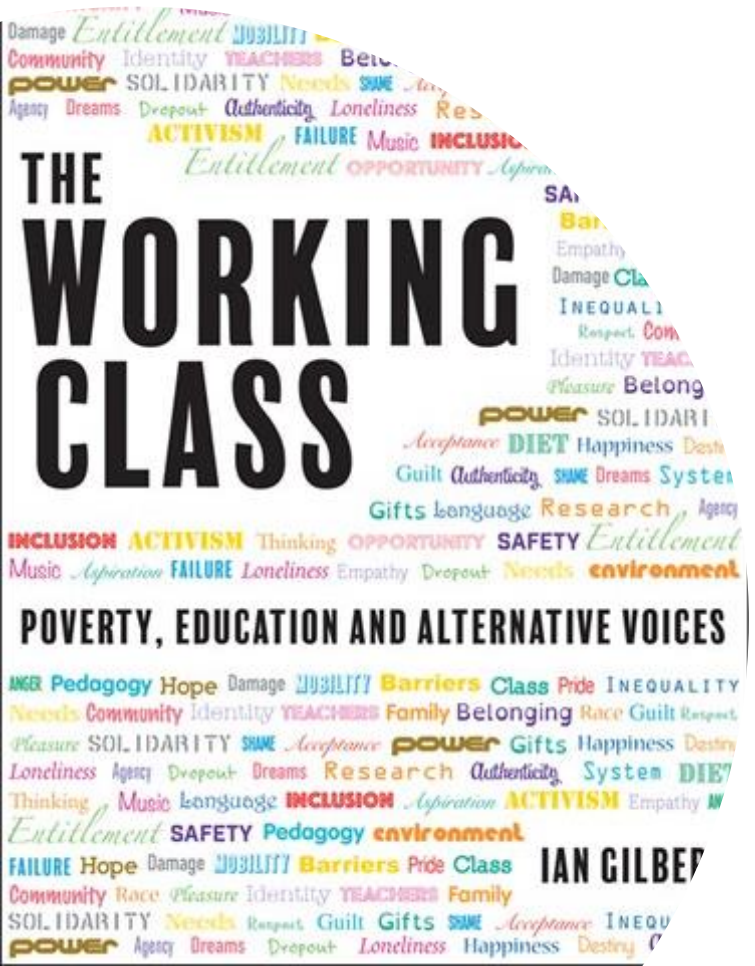
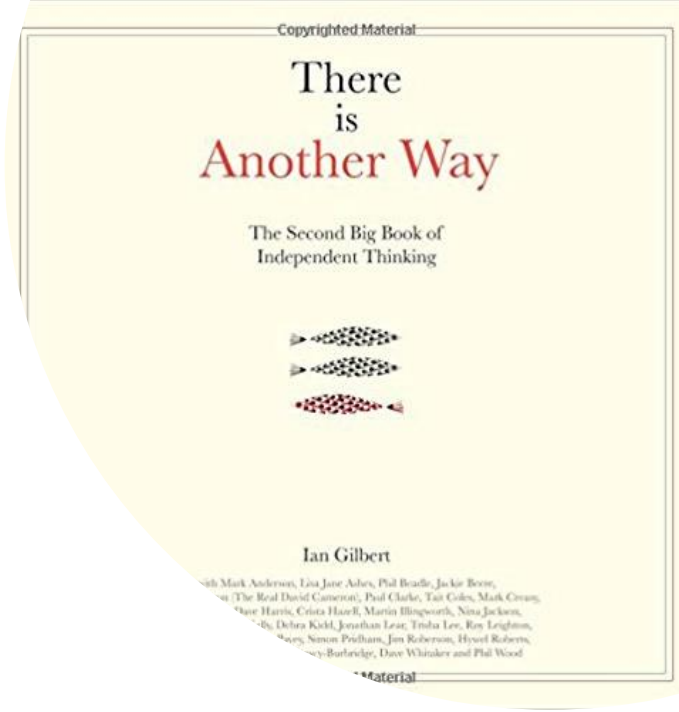
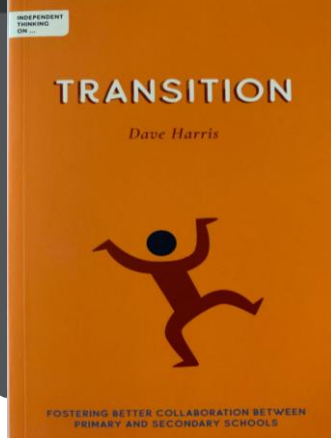
@bravehead

The Power of Wonder and Curiosity to develop learning

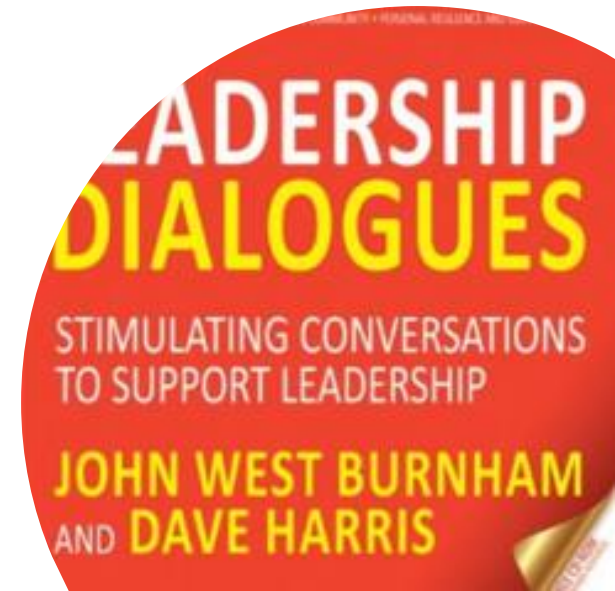


Who am I??

- ❖ Managing Director of Independent Thinking
- ❖ Retired head teacher having worked for 30 years in deprived communities.
- ❖ Formed a 3-18 school by amalgamating a secondary, junior & infants in record time
- ❖ Author of “Are You Dropping the baton?”
- ❖ Author of “Brave Heads”
- ❖ Author of “Leadership Dialogues” 1 & 2 with Prof. John West Burnham
- ❖ Author of “Independent Thinking on Transition”
- ❖ Leadership consultant in over 15 countries
- ❖ Father of two wonderful ‘touchstones’
- ❖ Believe that work without passion is pointless



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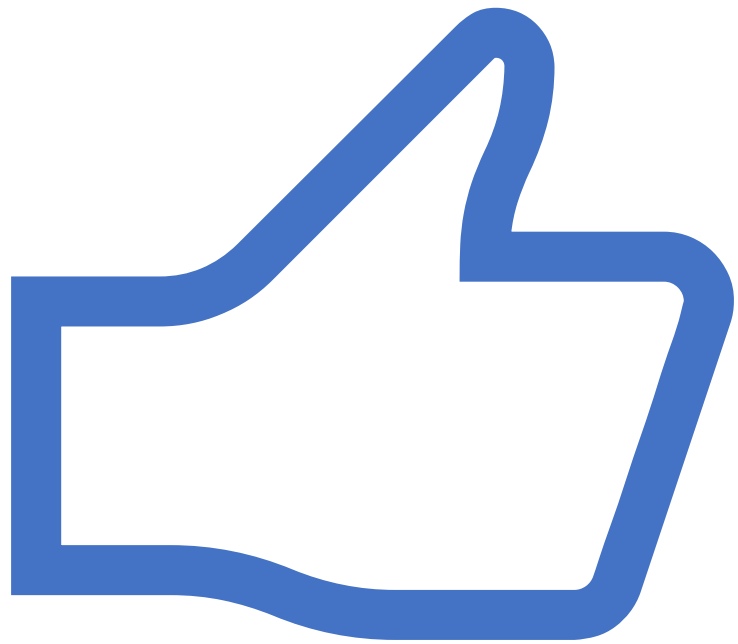
How about
some more
interesting
facts?



Who am I really?

Which of these is not true:

1. I was once a ballet dancer
2. I am a semi-professional singer
3. I was on a TV programme about Sex Education with Davina McCall
4. I once castrated a rock star's cat
5. I used to work in a cattle market



Now your turn....



May you live in
interesting times!

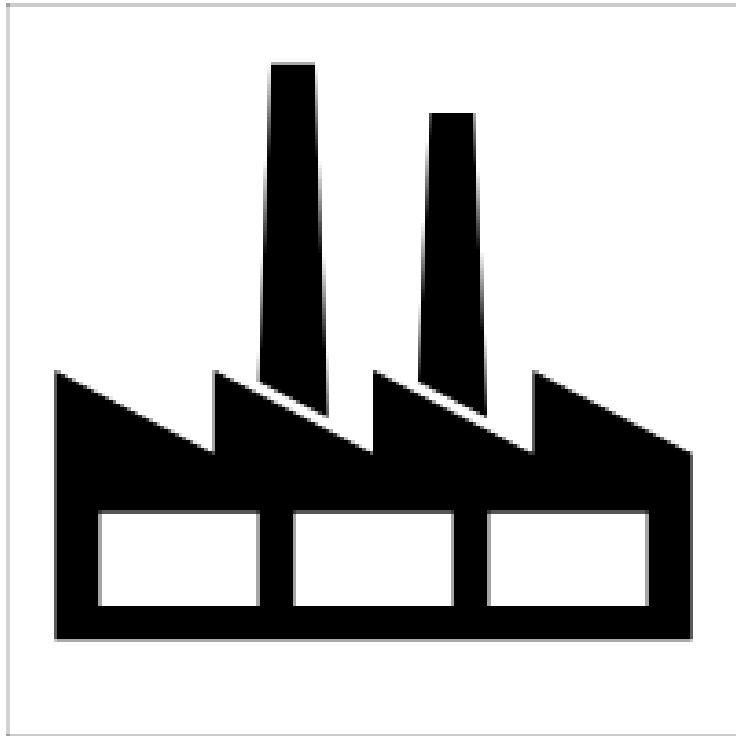
Ancient curse



Communication/ Information society

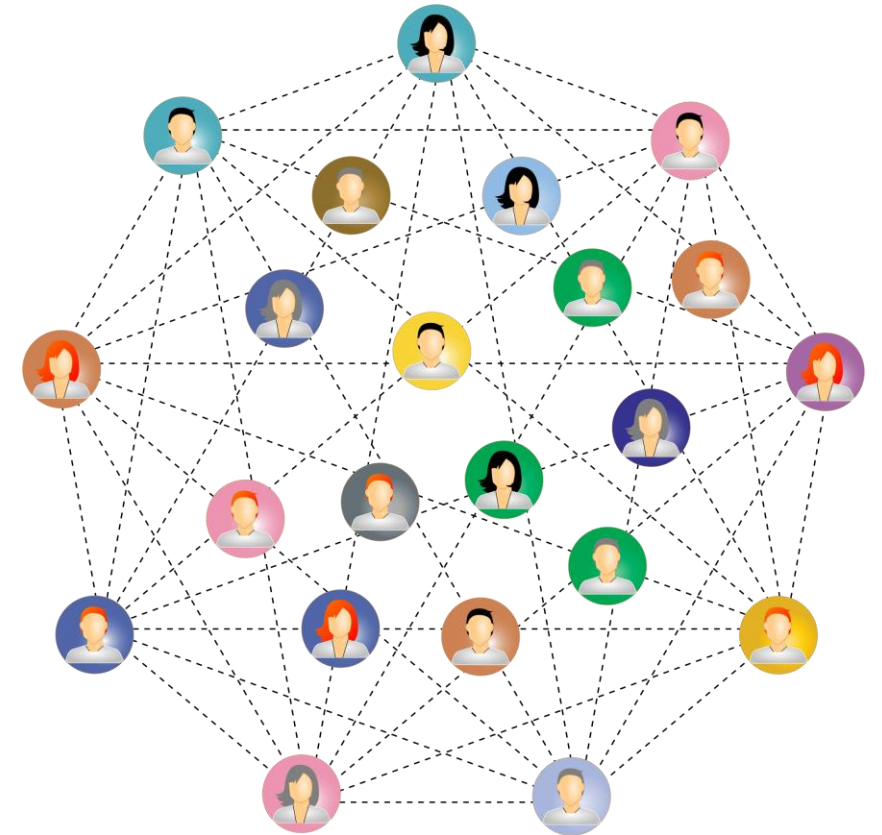
Beginning to take shape

Industrial

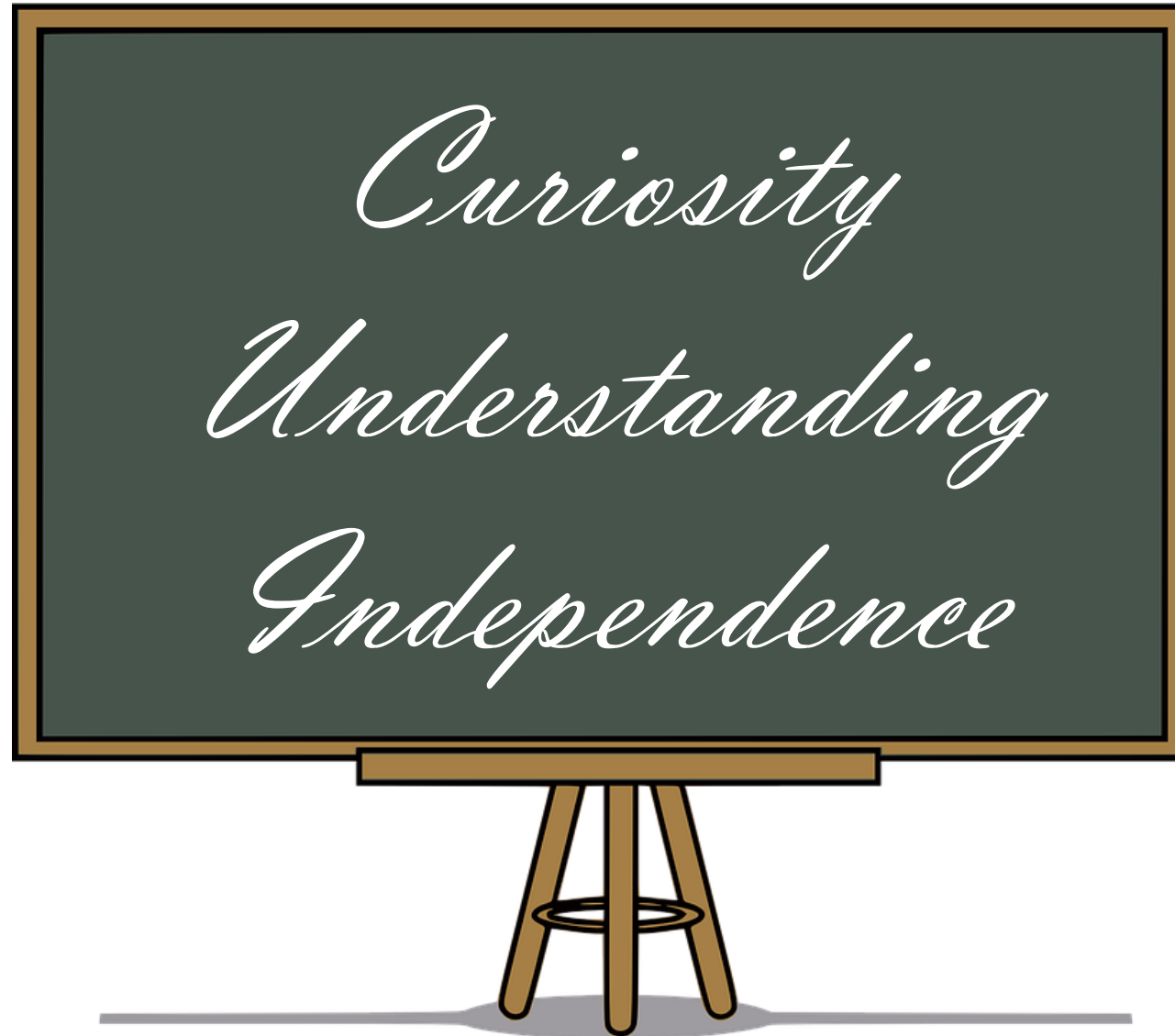


v

New Society



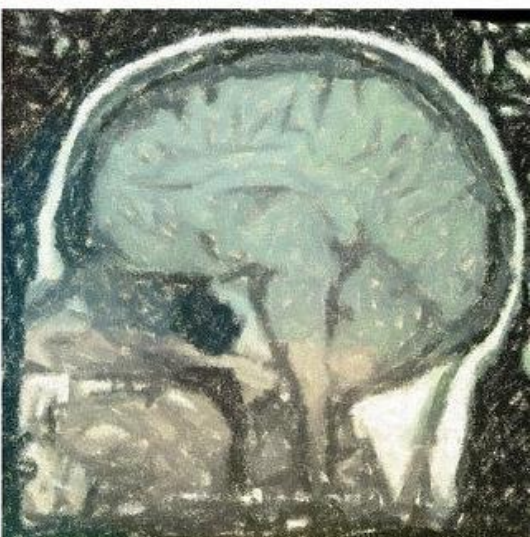
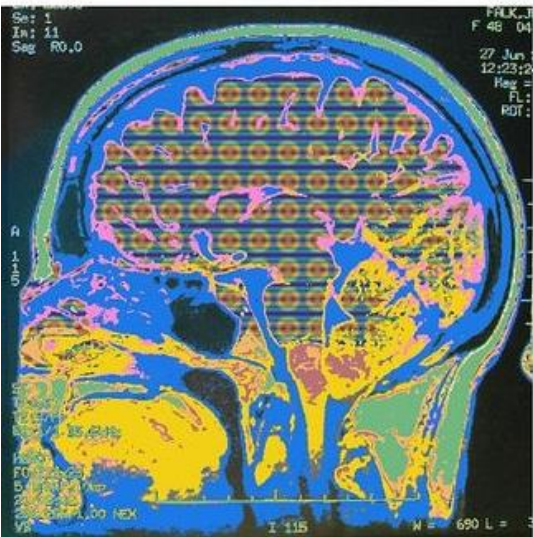
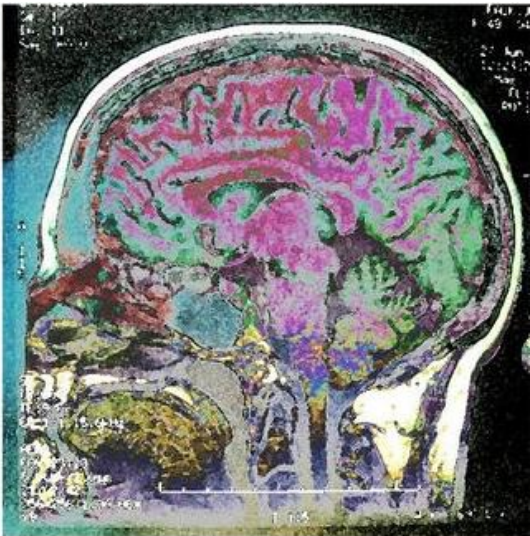
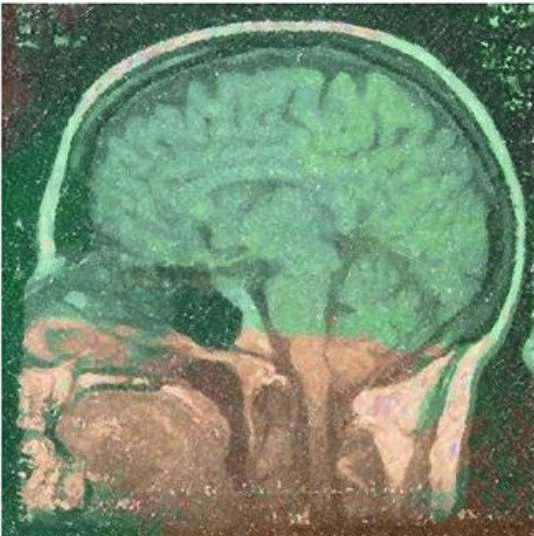
We need to be clear what education is for?





So how do we grow great learners?

Does the brain require change at a particular age?



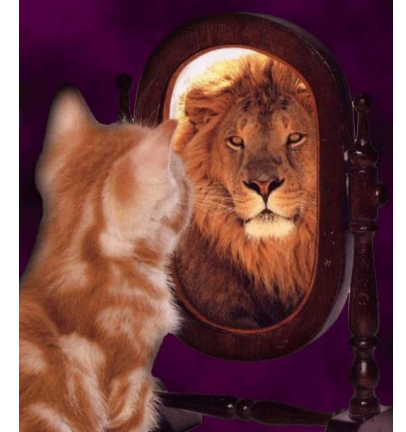
It is not a question of growing wiser as you grow older. This is a thoroughly misguided concept.

There are, after all, some very stupid old people.

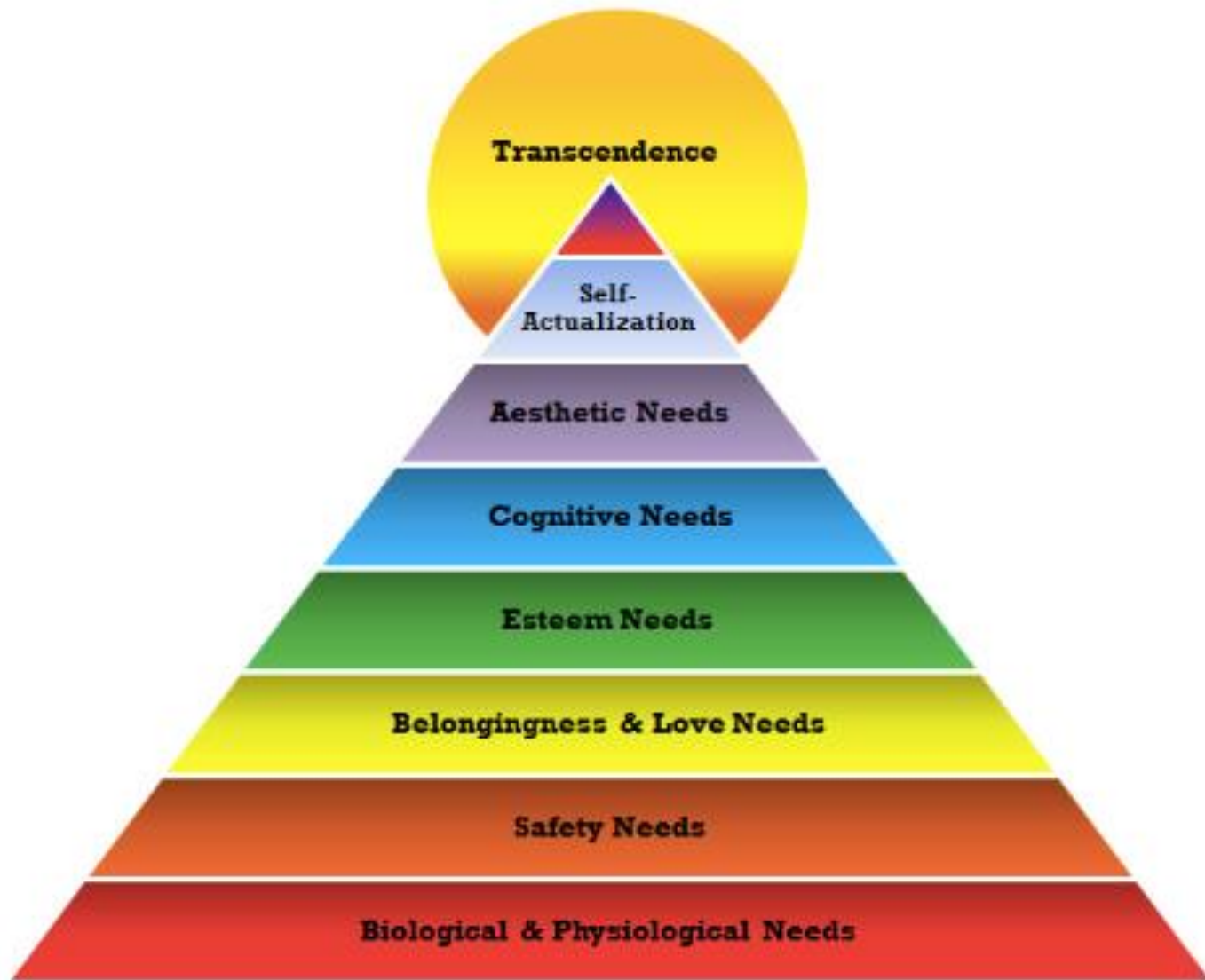


We are not just trying to grade you,
we are trying to grow you

“No-one
ever grew
as a result of being measured”



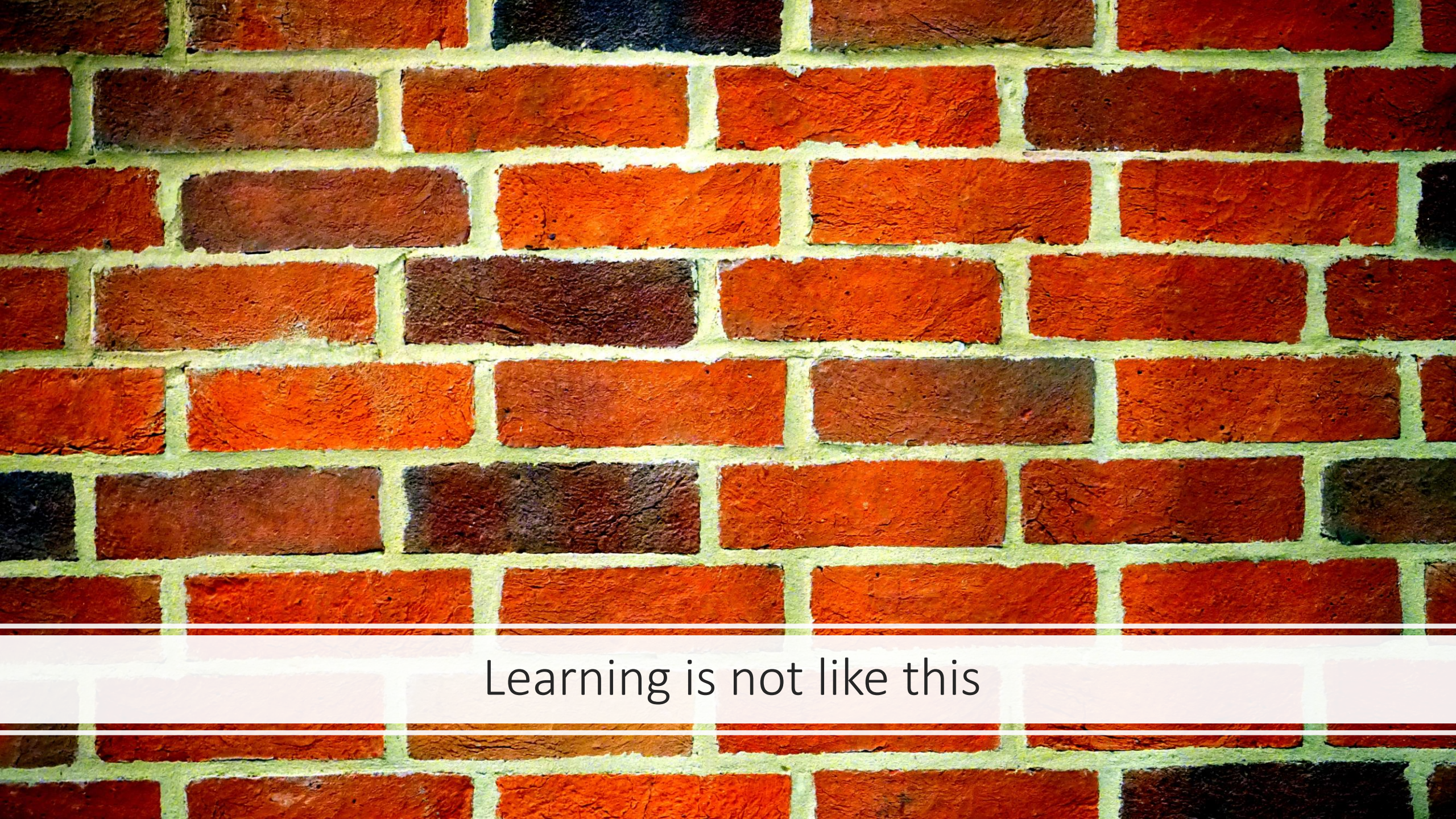
(Cockcroft, 1982)



Maslow's Hierarchy Of Needs Pyramid

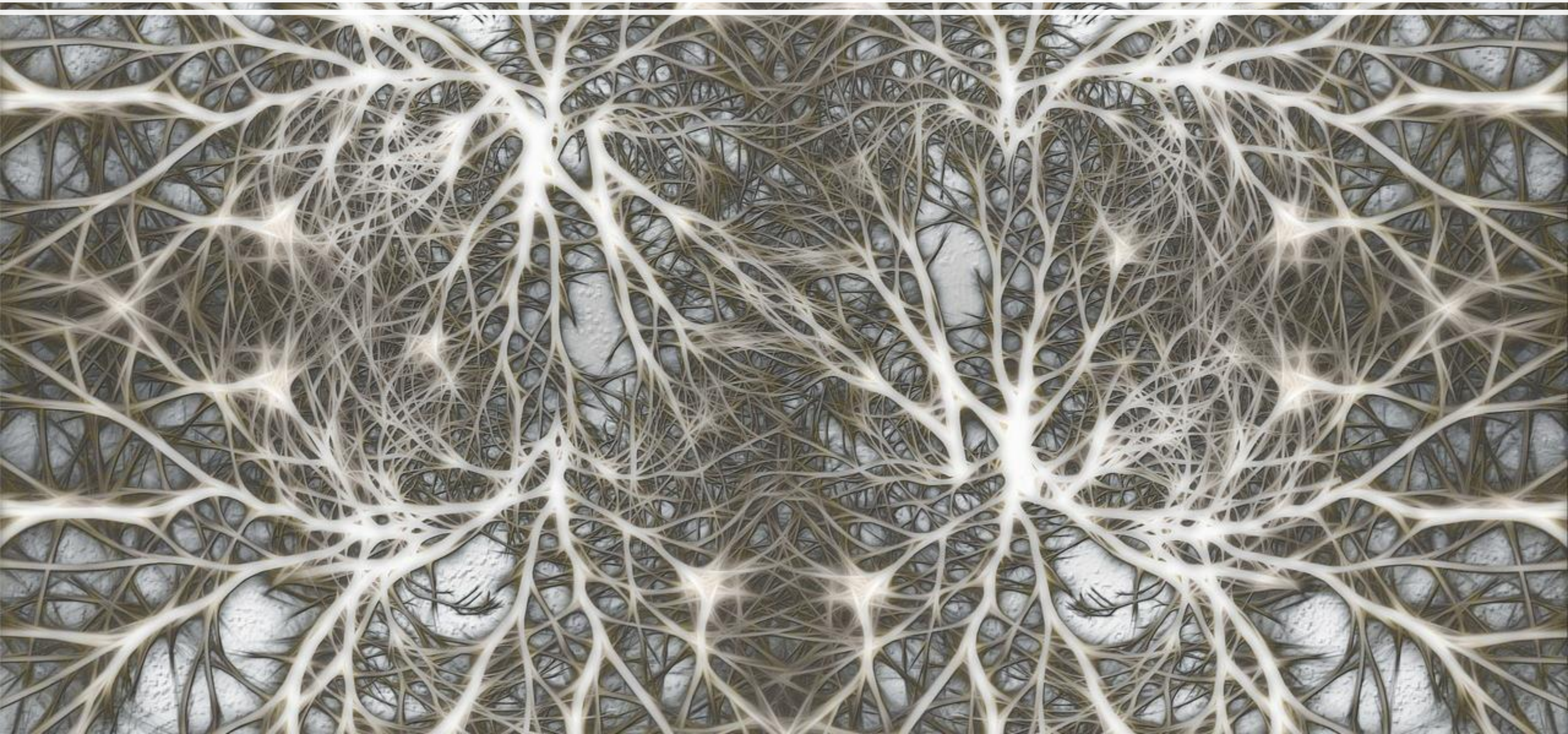


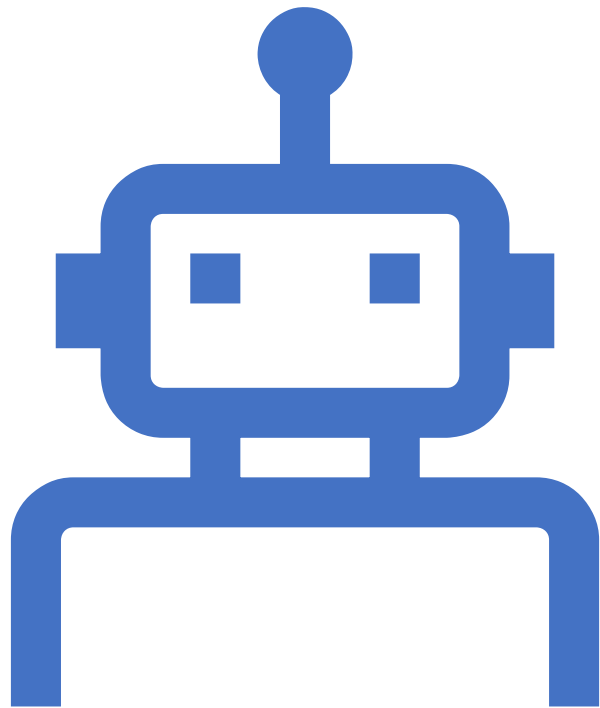
MUSEI
WORMIANI
HISTORIA
LUGD. BATAVORUM
EX OFFICINA ELSEVIRIANA



Learning is not like this

It is more like this...





What is the most important thing you want kids to learn?

The learning brain

METACOGNITION

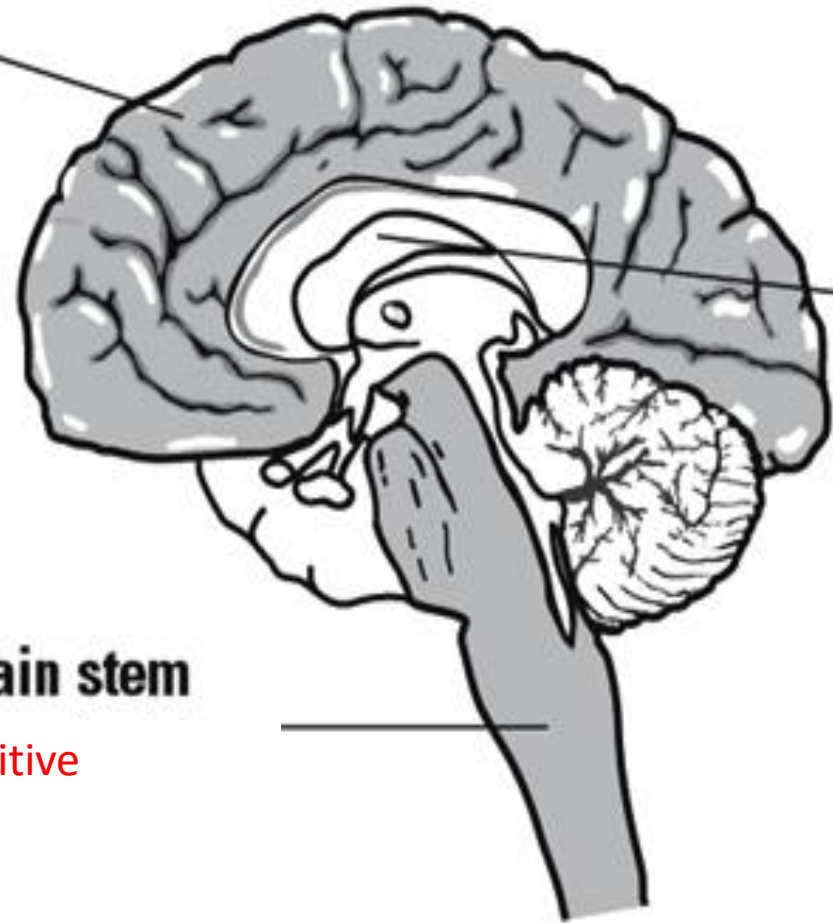
Neocortex
Higher-order thinking

- Evaluation
- Reflection
- Creativity
- Analysis

Thinking

- Fear
- Anger
- Threat
- Anxiety

Brain stem
Primitive



Emotional

Limbic brain

- Novelty/surprise
- Humour
- Music
- Rhythm/rhyme
- Love
- Mystery
- Curiosity
- Stories
- Passion!

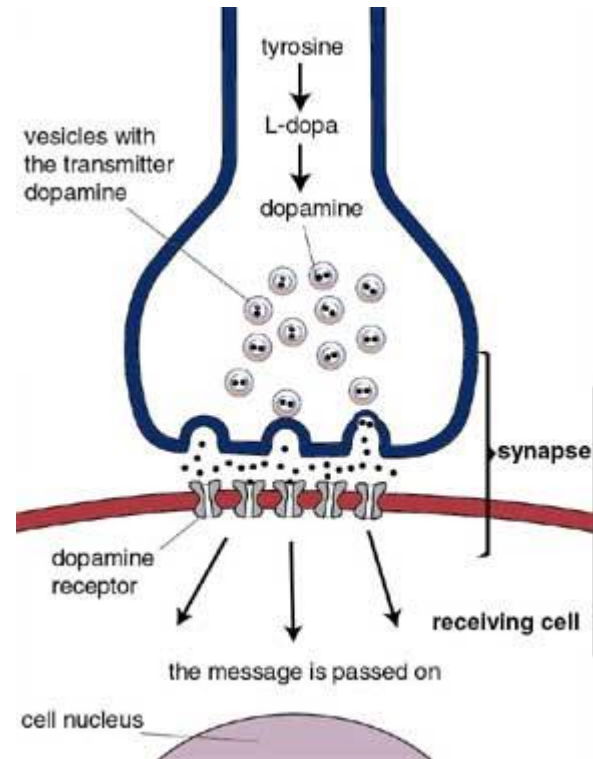
Learning is not a straight road



What about engagement?

Type of engagement	Identifying traits	Tally	Number	%
Authentic engagement	Students are immersed in work that has clear meaning and immediate value to them.			
Ritual compliance	The work has little or no immediate meaning to students, but there are extrinsic outcomes of value that keep them engaged.			
Passive compliance	Students see little or no meaning in the assigned work but expend effort merely to avoid negative consequences.			
Retreatism	Students are disengaged from assigned work and make, no attempt to comply but are not disruptive to the learning of others.			
Rebellion	Students refuse to carry out the task, act disruptively and attempt to substitute alternative activities.			

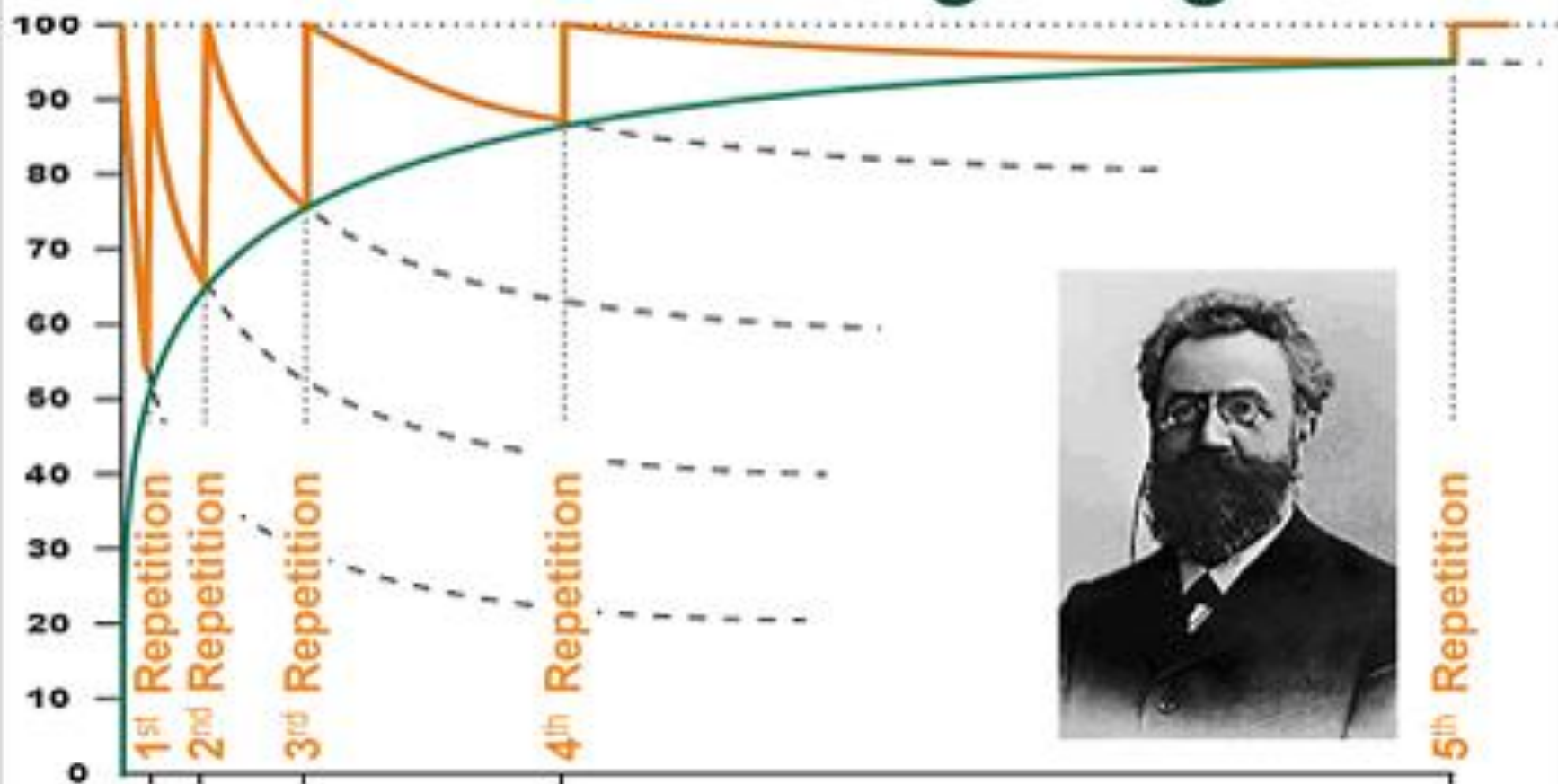
The dopamine effect



Improves learning 15 minutes before & after!

Ebbinghaus Forgetting Curve

% of Data Remembered



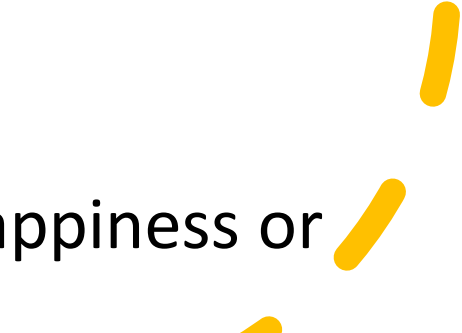
5th Repetition







Thunks

- Is there more future or past?
 - In a dark room what does a mirror reflect?
 - Can you touch the wind?
 - Is there more happiness or sadness in the world?
 - Can you feel happy and sad at the same time?
 - If I read a comic in a shop without paying for it is that stealing?
 - If we borrow every single book from a library is it still a library?
 - Is it ever OK to cheat?
 - Which has the greatest volume happiness or sadness?
- 

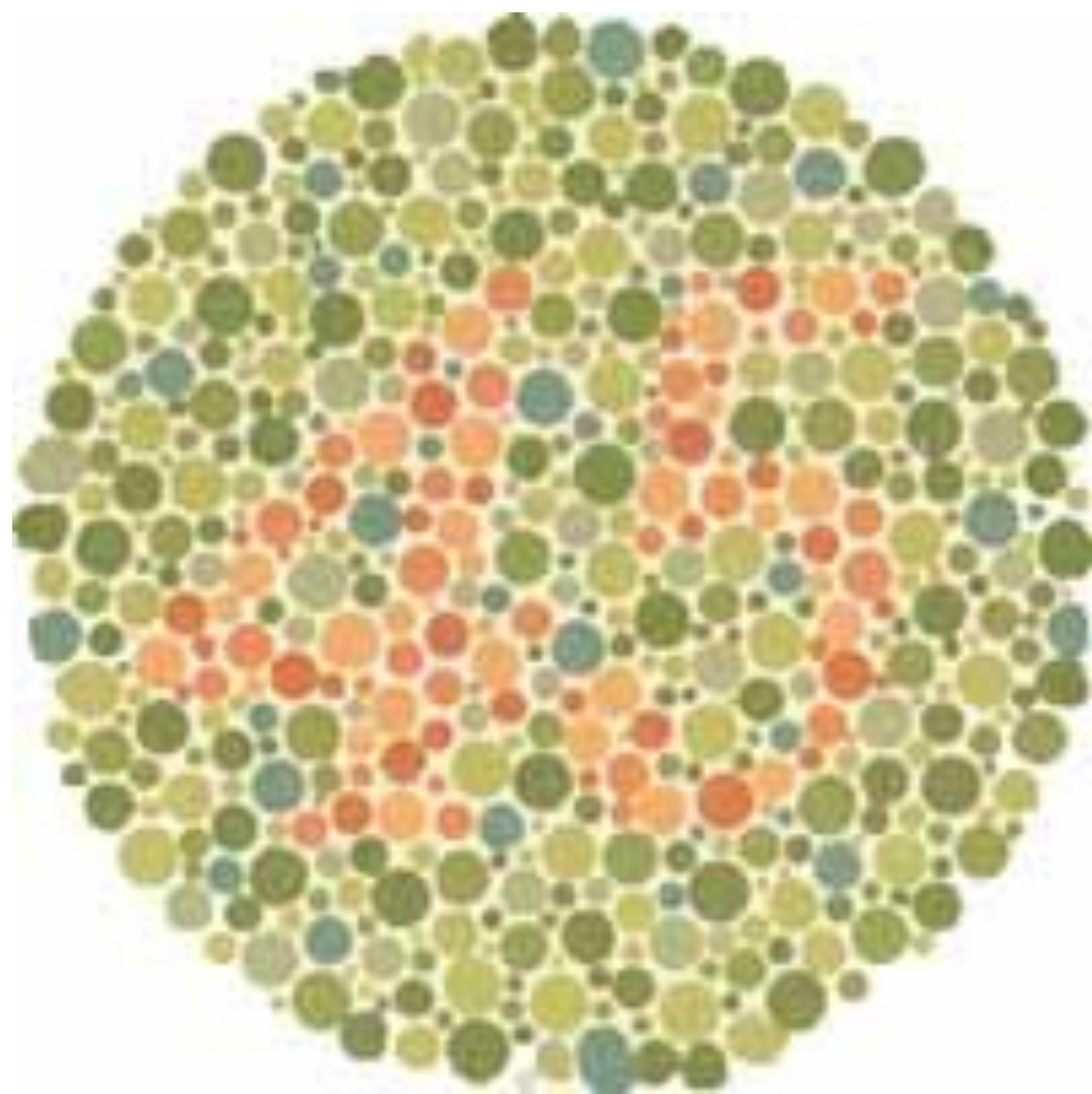
Help kids see the world differently

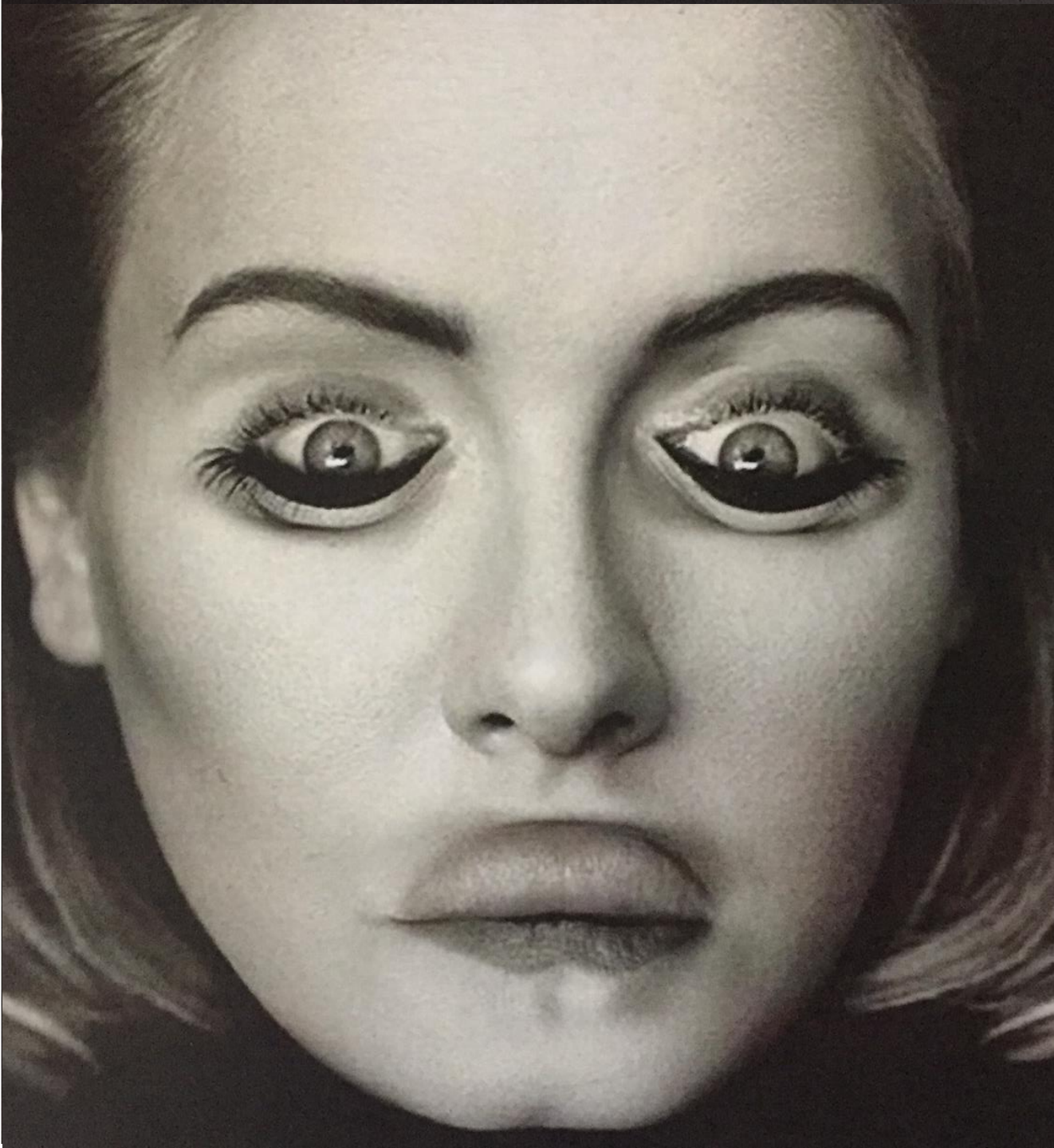




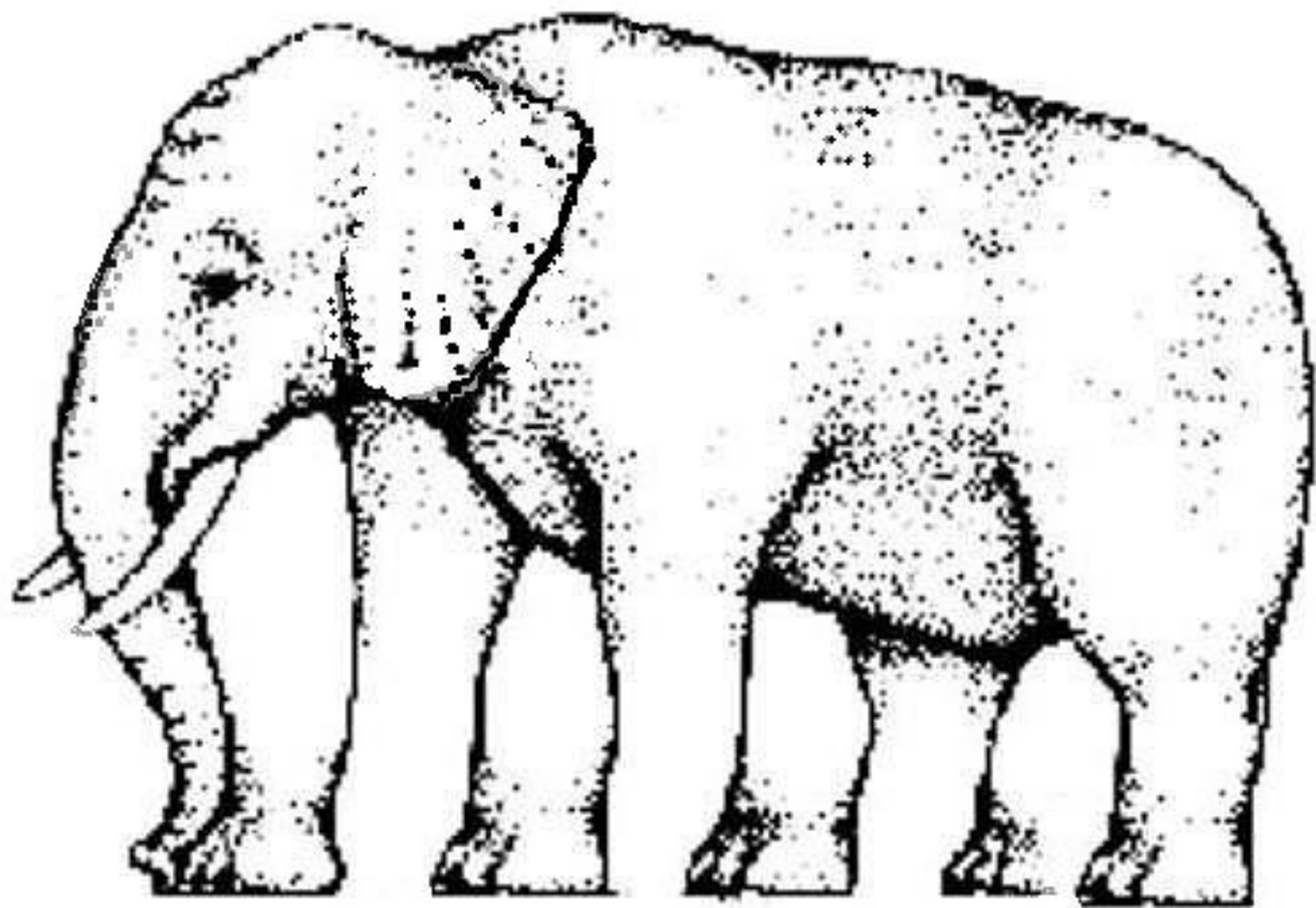




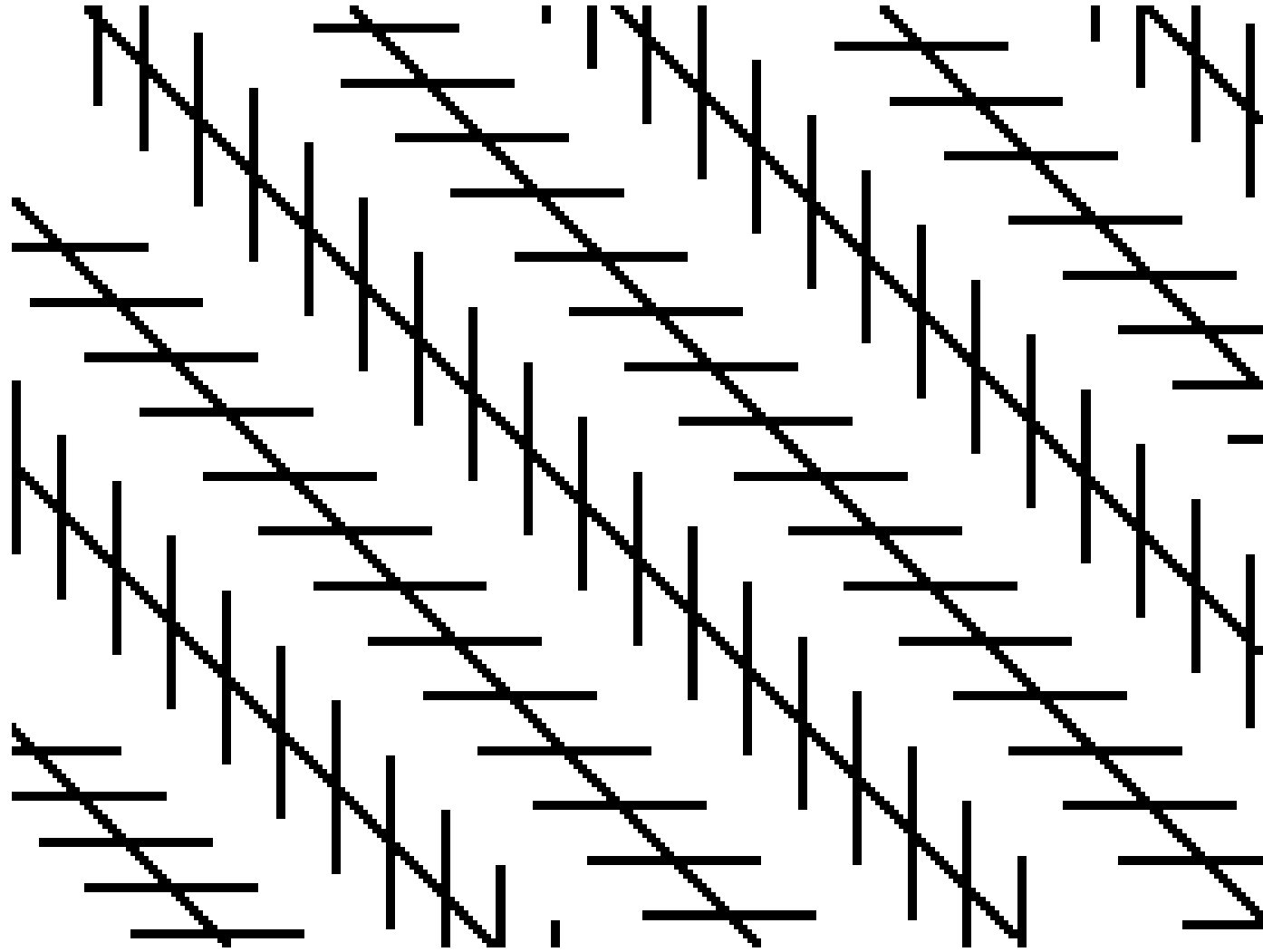




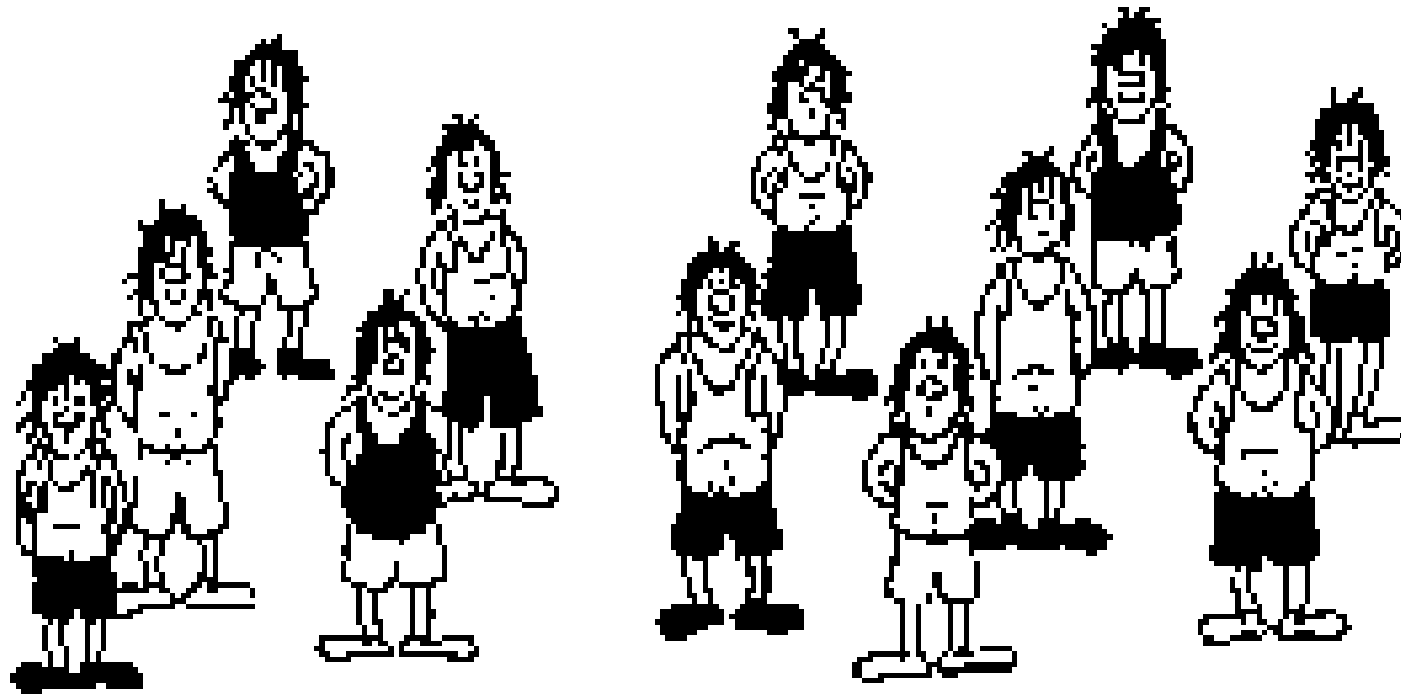




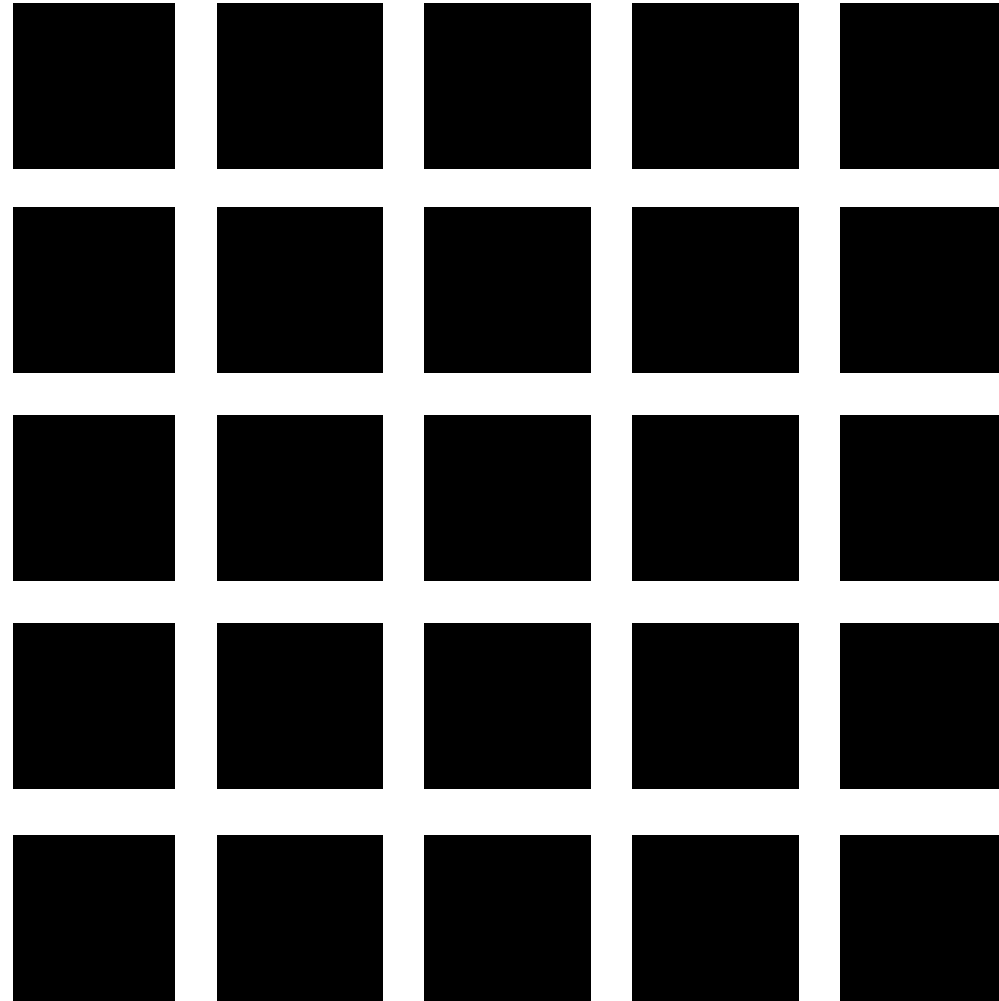
The diagonal lines are parallel. (Zöllner illusion)

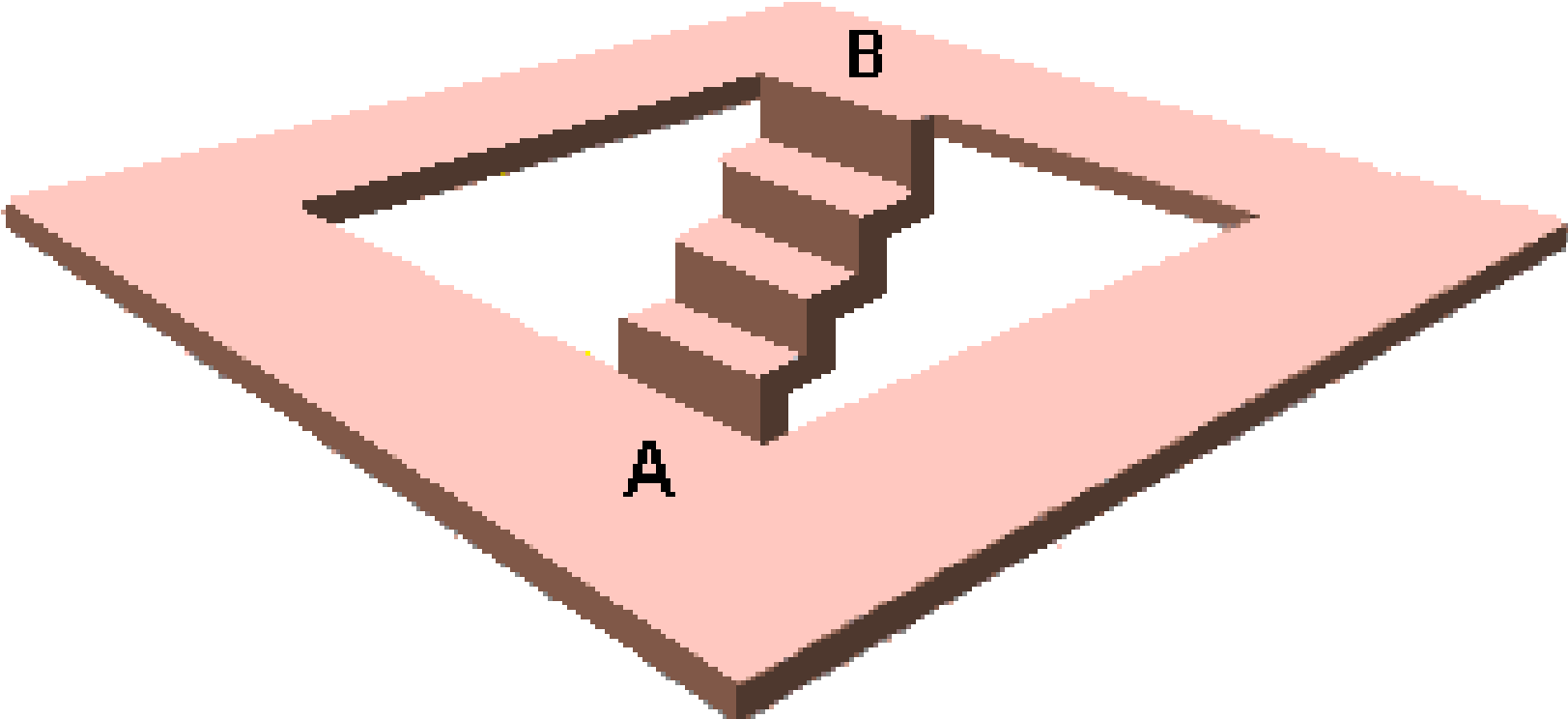


Can we trust our own brain?



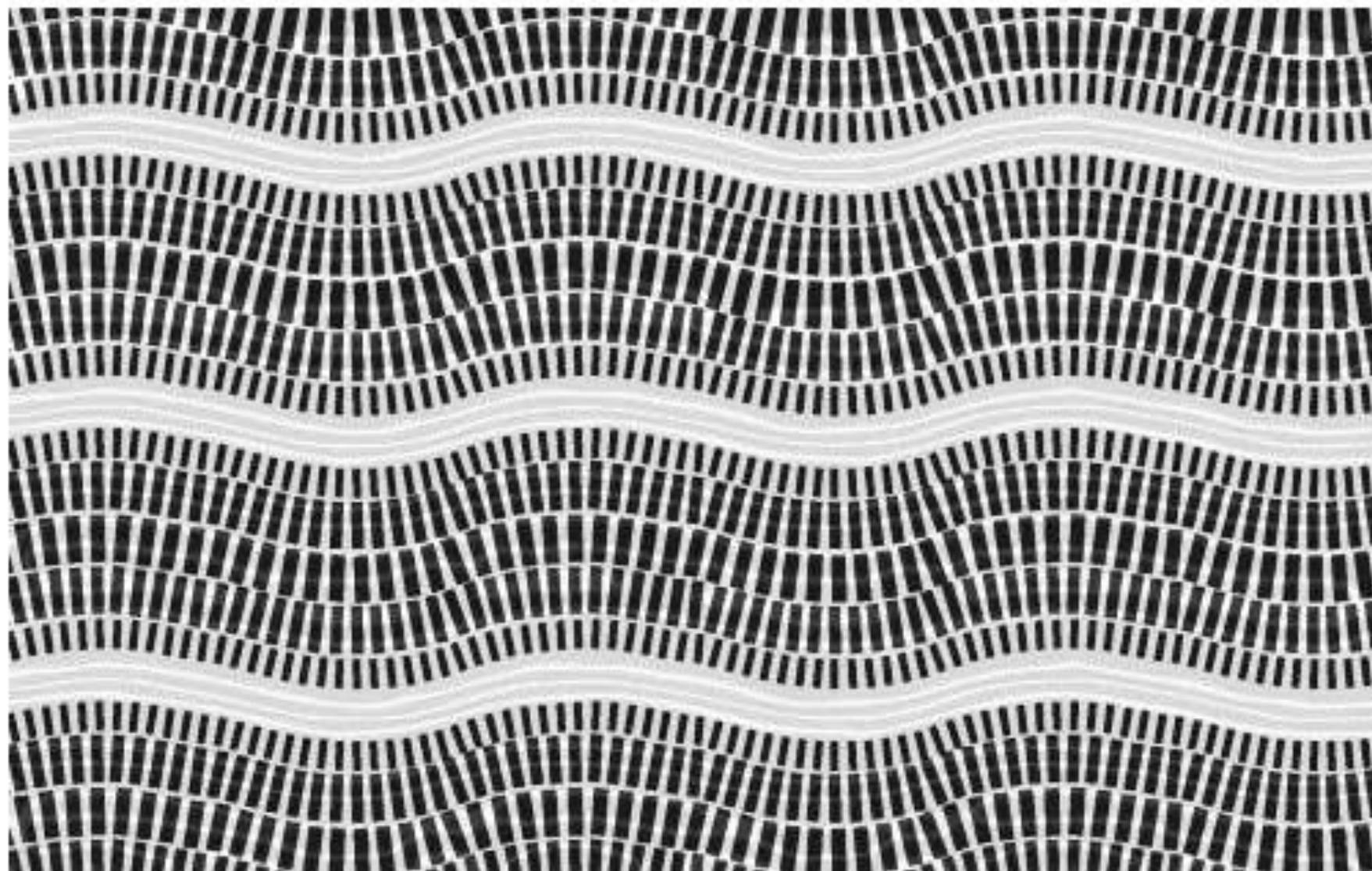
There are no gray spots at the corners of the squares.





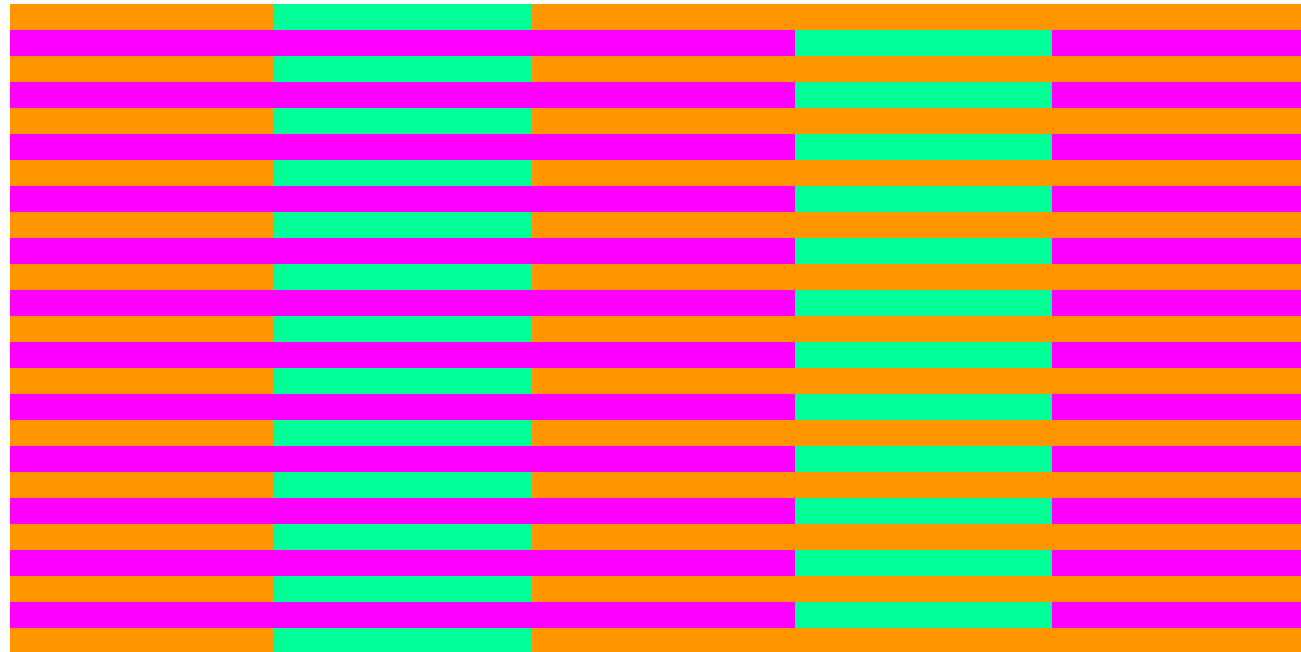
Three Streams.

Apparent movement of the streams is created by afterimages as our eyes shift to examine the picture.



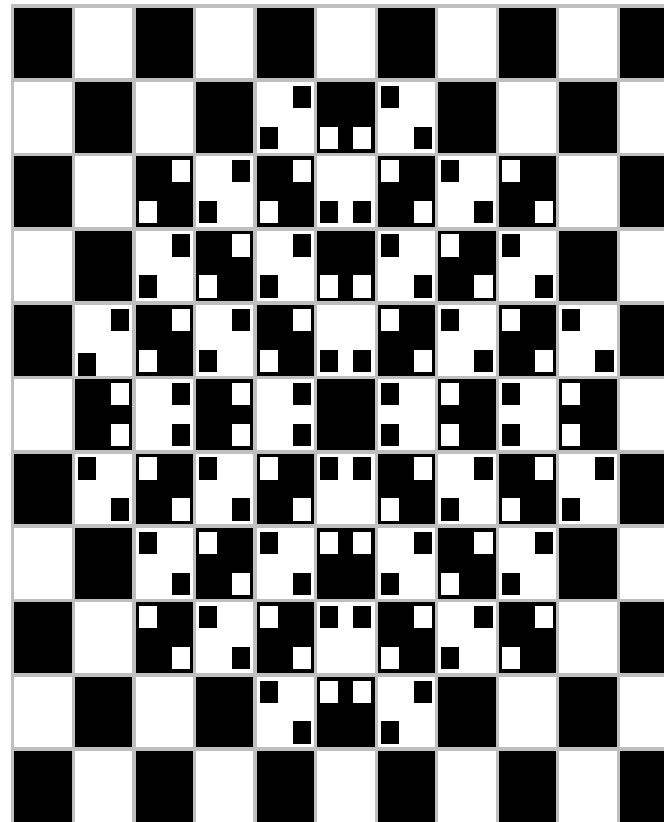
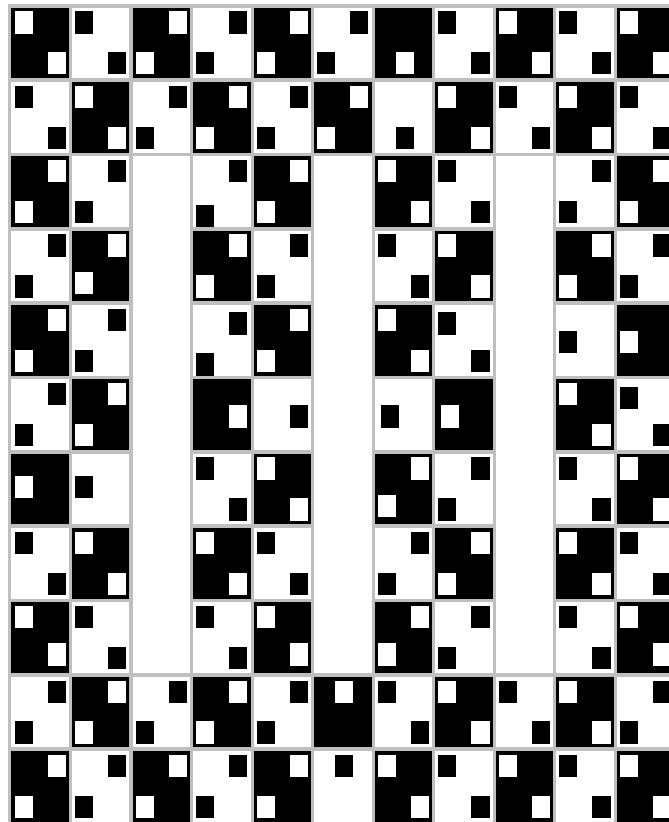
Blue-Green Illusion.

This image has only three colors. What appears to be blue and green is actually the same color. The altered perception is caused because the eyes combine adjacent colors.

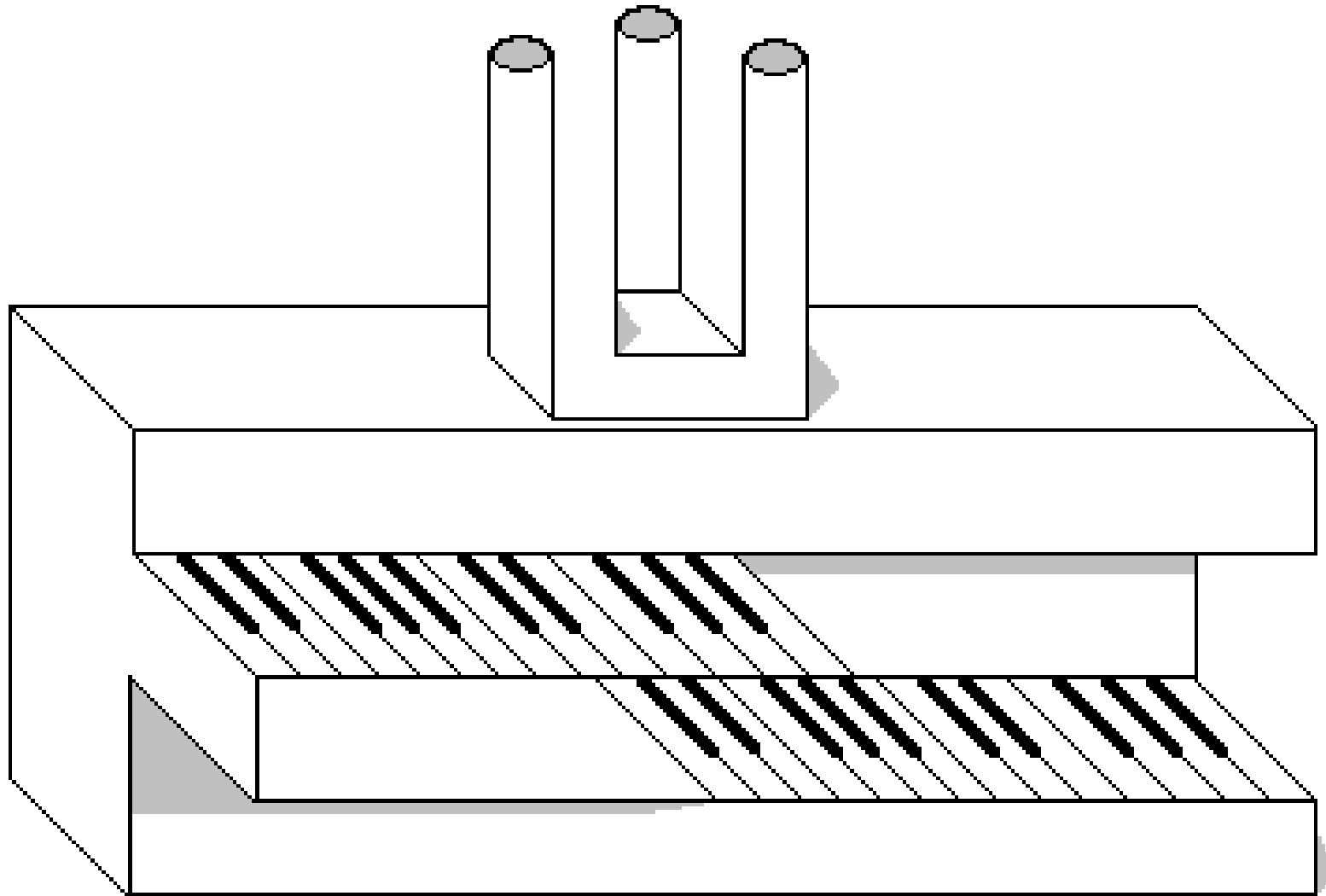


Warped Squares?

There are no curved lines in these figures. You can use a ruler to check it out. The diagonal patterns created by the tiny squares distort the perception of the pictures.

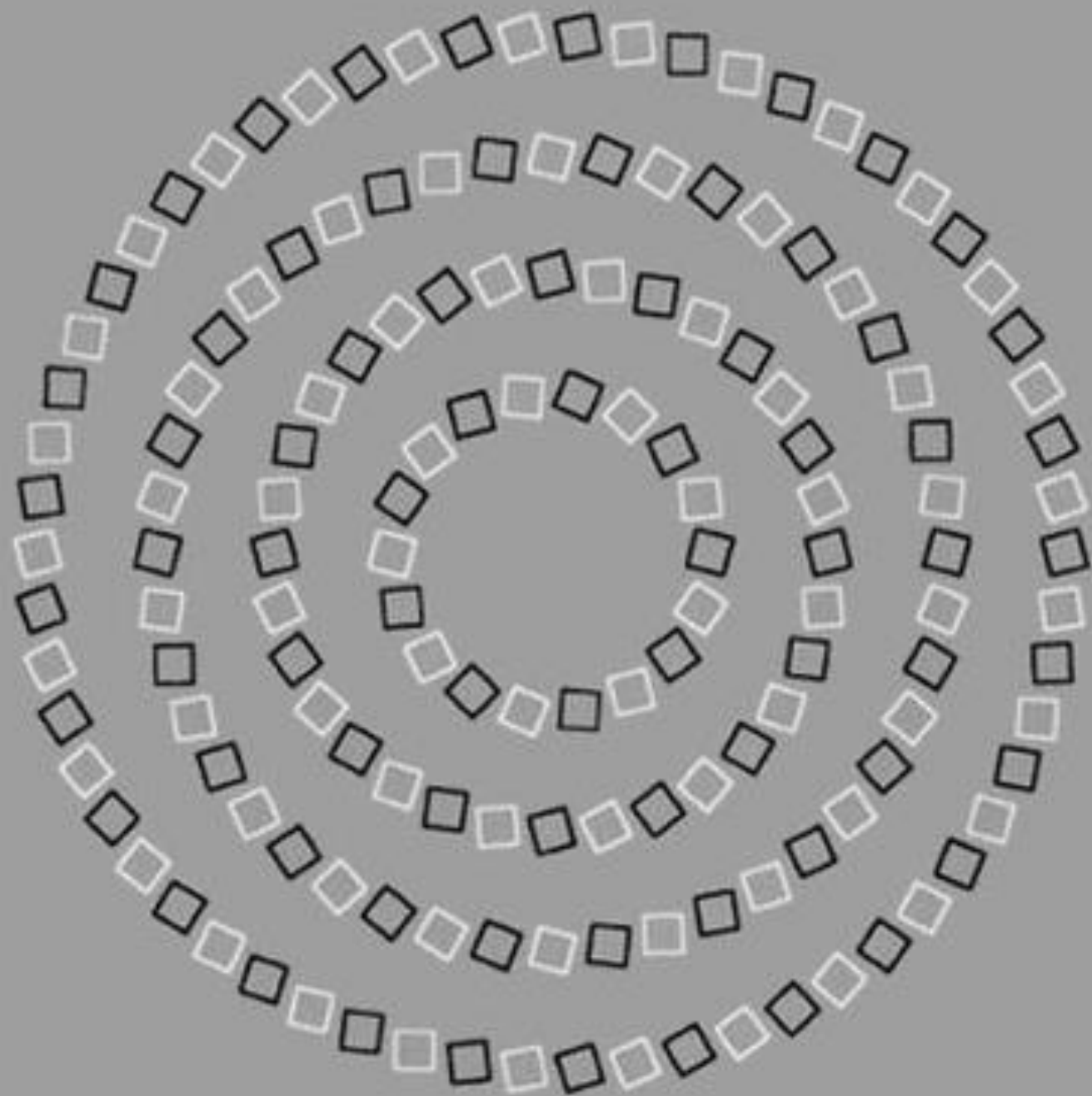


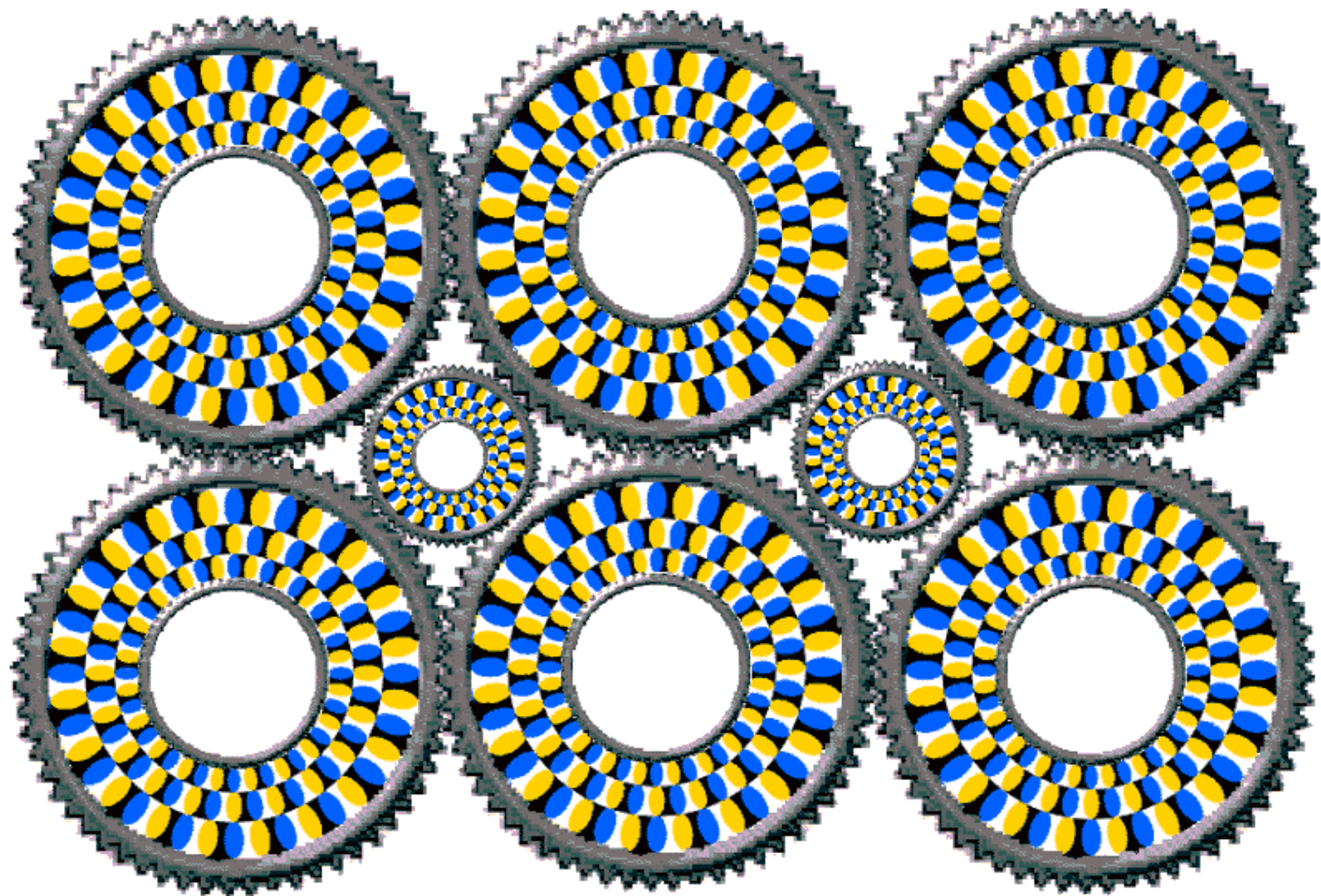
Two-keyboard Pipe Organ











Derived from a design by A. Kitaoka

YELLOW BLUE ORANGE

BLACK RED GREEN

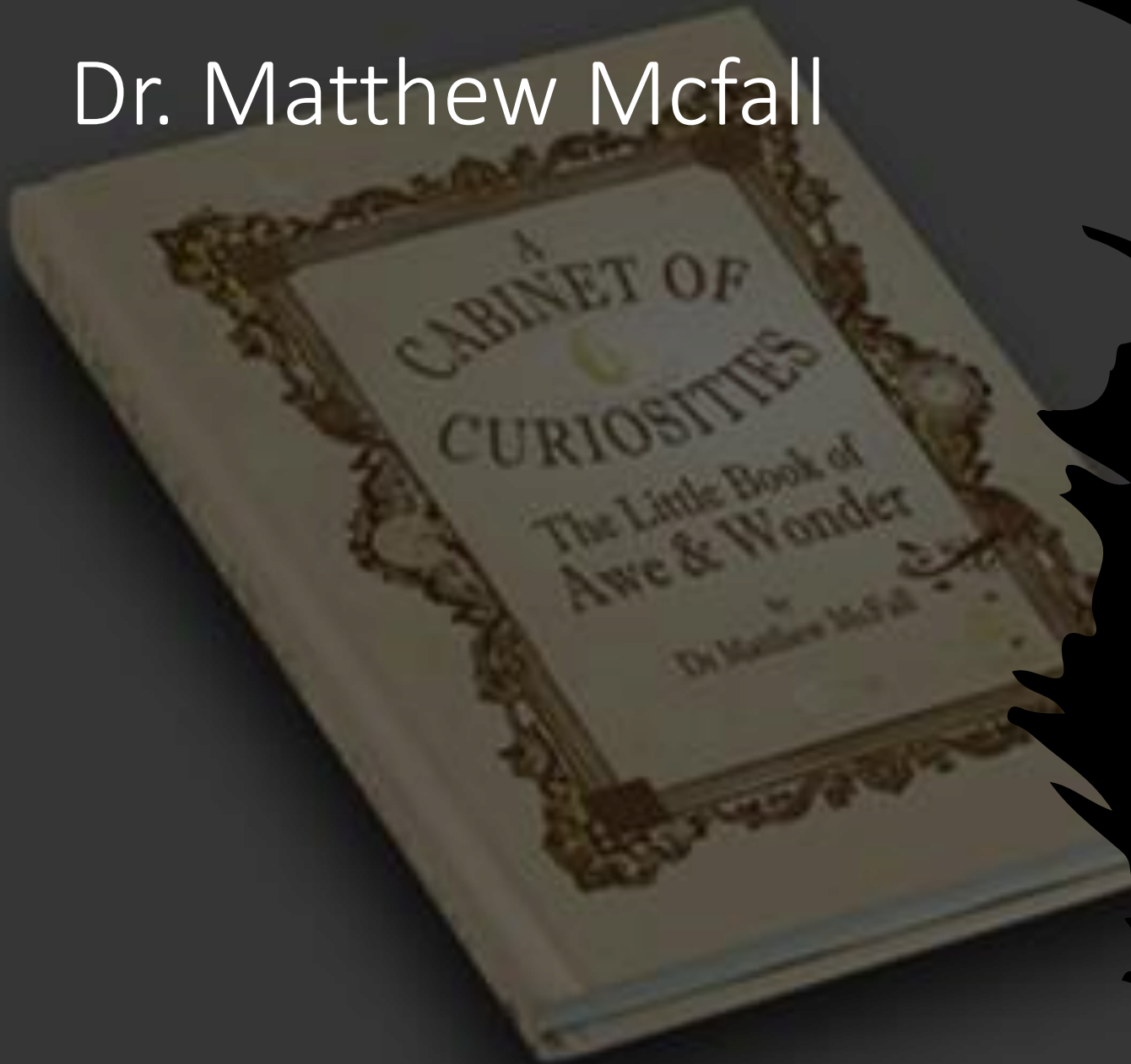
PURPLE YELLOW RED

ORANGE GREEN BLACK

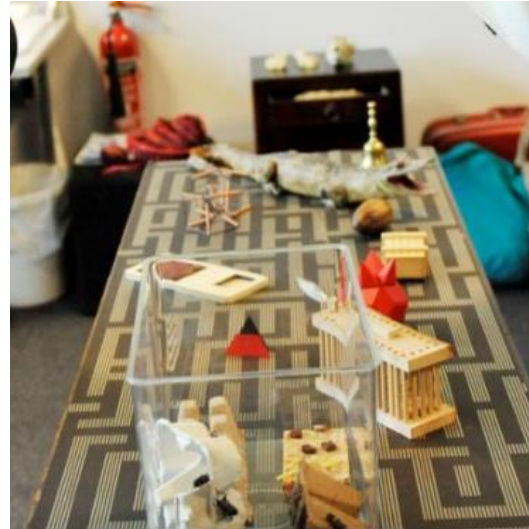
BLUE RED PURPLE

GREEN BLUE ORANGE

Dr. Matthew Mcfall



NURTURING WONDER







Ooblek

Objects to make you think!

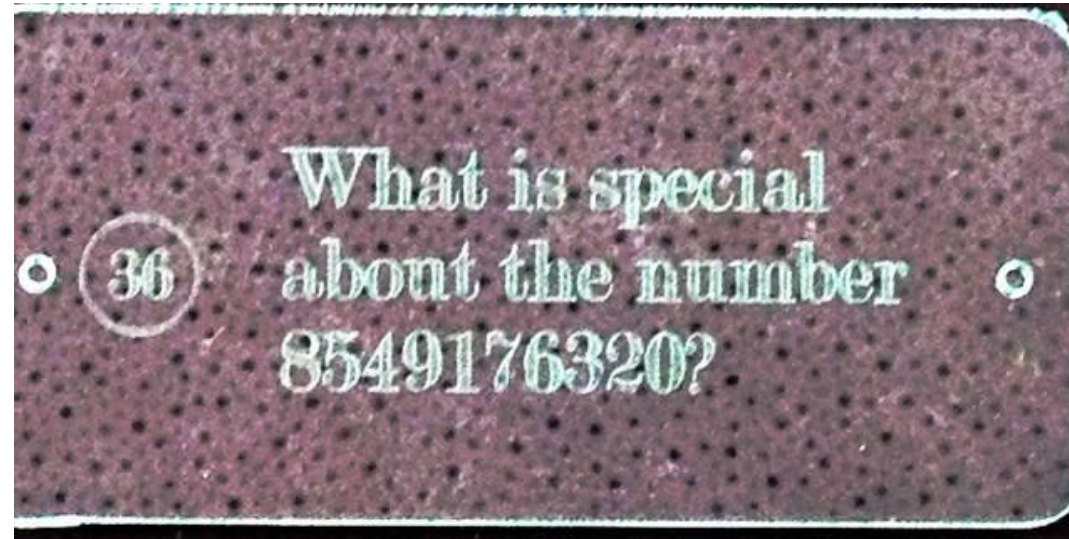
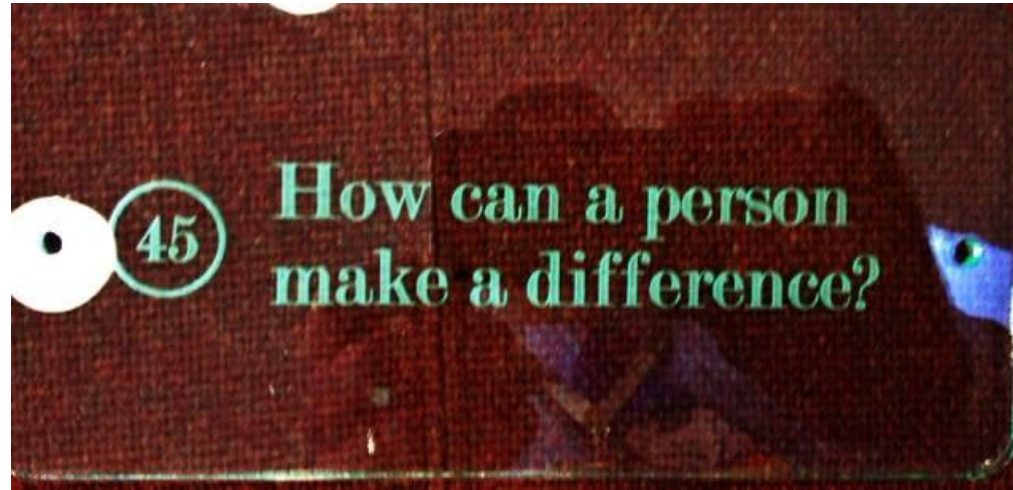






17	36	32	4	7	3	23	31	13
12	45	26	10	9	44	27	28	
3	37	29	35	40	38	18	48	6

Wonder trail



BE PROUD OF YOUR SCARS



**It's not what you do,
it's how you do it!**



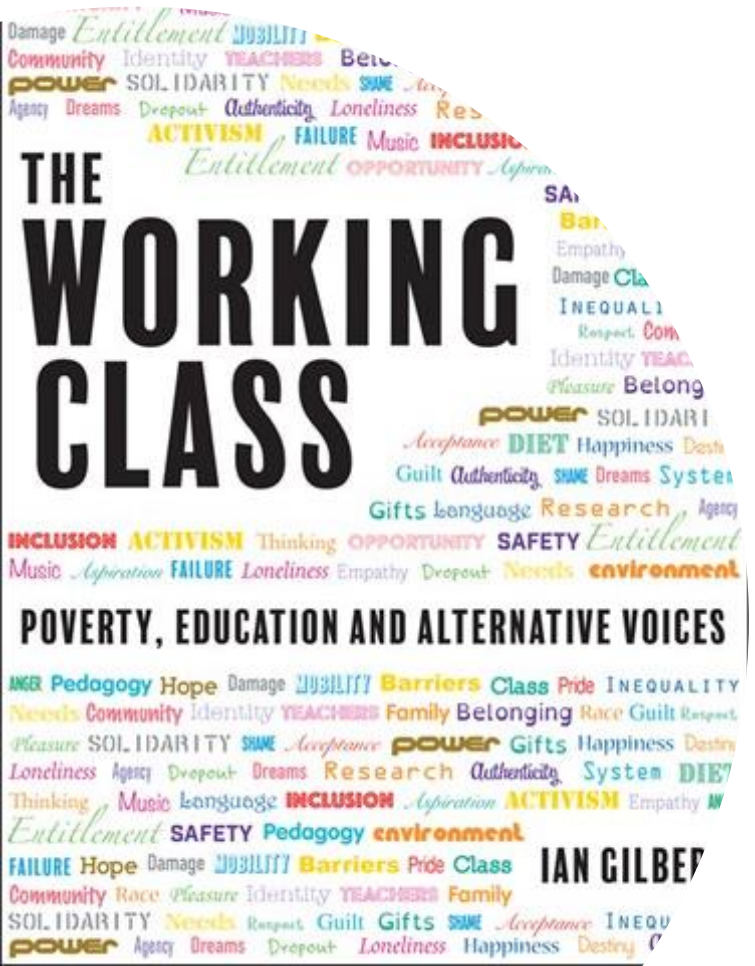
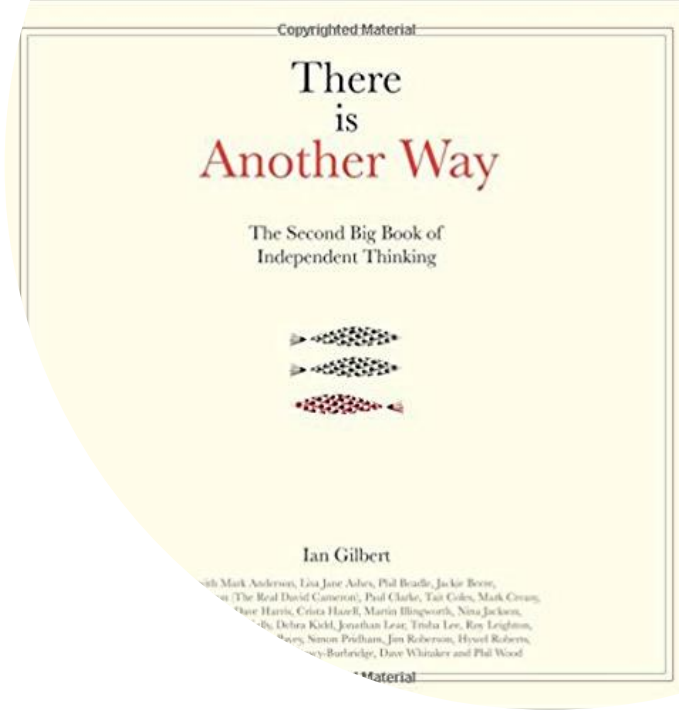
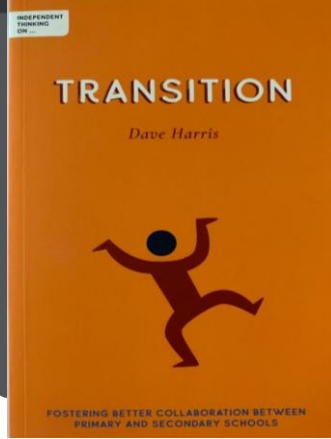


Learning is the greatest game in life and the most fun. All children are born believing this and will continue to believe this until we convince them that learning is very hard work and unpleasant. Some kids never really learn this lesson, and go through life believing that learning is fun and the only game worth playing. We have a name for such people. We call them geniuses

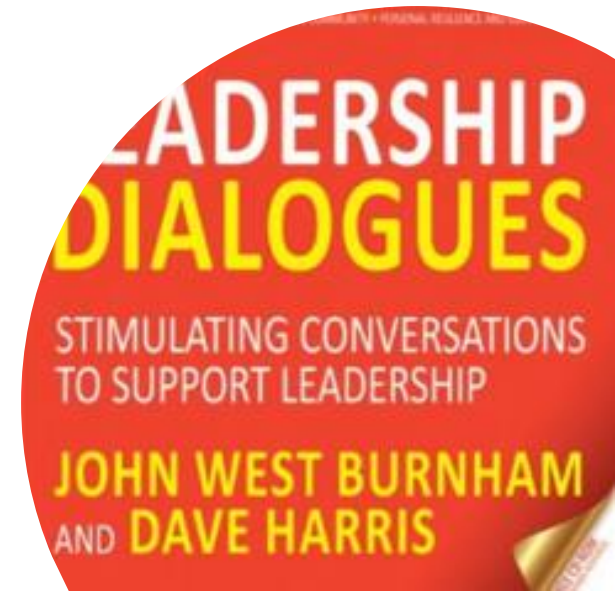
Glenn Doman



**take
action,
not
notes**



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#theresalwaysanotherotherway