

The Unbiased Mind: Four Obstacles to Clear Thinking

Teaching Guide



The Unbiased Mind: Four Obstacles To Clear Thinking is 25 minutes.

Summary

Can you teach your students to think more clearly? We think you can, using *The Unbiased Mind* as a provocative guide to question common but flawed thinking habits. The video illustrates four thinking traps:

1. Stereotypes

In an ordinary deck of playing cards, which king shows only one eye? Most people don't know. This perfectly normal "blindness" serves to illustrate our tendency to see only long enough to label or categorize. Dealing with labels instead of individuals is a mental shortcut that leads to stereotype and prejudice.

2. Problems with Cause and Effect

Listen to the mysterious "Curse of the Grecian Urn" and decide why ownership of a mysterious urn seems to cause so many untimely deaths. Could the urn be cursed, or does it illustrate a common problem in assigning cause and effect?

Find out what an athlete on a "hot streak" has in common with a citizen concerned that an abandoned factory is causing an epidemic of cancer.

3. Seeing Only What We Expect to See

The "confirmation bias" explains why a thin person believes herself overweight, why a higher price on consumer goods usually leads people to believe they are of higher quality, and why believers in the supernatural are most likely to see ghosts. It explains why psychics and horoscopes can so often be accurate, and why useless medicines or home remedies sometimes work miraculous cures.

4. The Invisible Self

Here's a question the program asks viewers: "When you read printed words reflected in a mirror they are backwards and inside out. Why doesn't that happen you look at your face in a mirror?"

See how our built-in blind spot leads to muddled conclusions.

Excerpts From Video Script

FIRST THINKING TRAP: CONFUSING LABELS WITH REALITY

When we play a card game, all we need to know is the value of the cards. The details on the pictures do not change the values; so they remain invisible. Card players need only to label the card. That thinking habit works well in a card game.

But we often use this same mental shortcut in the "real world." We see people or situations only long enough to assign a label or category. Then we deal with the label instead of the reality -- and that prevents clear thinking.

We need labels to make quick judgments, but relying on labels leads to stereotype and prejudice. We ignore individual differences. Soon we see ONLY the label.

We usually stereotype groups to which we do NOT belong. The poor stereotype the rich and the rich stereotype the poor. Kids stereotype "old folks", who in turn stereotype "today's kids".

We have trouble identifying members of groups we stereotype. To us, "they all look alike." Police notice this when witnesses try to pick the guilty person out of a lineup made up entirely of one ethnic group.

Many of us hold a stereotype that "bad guys" should look bad; learned no doubt from watching movies and television. But the most evil criminals can look very ordinary. Believers in the "criminal stereotype" sometimes protect themselves against the label only to fall victim to the reality.

Nations at war create stereotypes to label the enemy. Soldiers find killing humans like themselves difficult. So propaganda departments create labels for the enemy so they appear less than human, and therefore more "killable."

When those stereotyped believe the label applied to them it becomes a "self-fulfilling prophecy." The label encourages behavior that makes the label come true.

Any judgment of a person based on membership in a group is probably a stereotype. Statements that begin with "people like you," or "you people" are likely stereotypes -- even if you believe they are factual. The best way to overcome a stereotype is by personal contact. The more individuals in a group you know personally, the more difficult it is to believe a stereotype.

Many colleges actively seek a culturally diverse student body because exposure to individual differences is part of a true education.

Travel can have the same effect. As simple a stereotype as "Scandinavians are blue-eyed blondes" is challenged by a trip to Sweden, Finland, or Denmark where simple observation proves it false.

So, our first obstacle to clear thinking is to rely on labels and stereotypes and ignore individual differences. You cannot eliminate stereotypes but you can avoid confusing them with reality.

SECOND THINKING TRAP: GIVING MEANING TO UNRELATED EVENTS

Humans are animals who seek meanings. We try to link events as cause and effect. If no meaning is obvious, we invent one. But we forget that the improbable happens daily.

You've heard players in various sports called "streaky" or having the "hot hand." Such "streaks" are not only normal, they are unavoidable!

Some people believe excess pollution is to blame for an extreme winter. Others are convinced a hot summer proves the "greenhouse effect." In reality, unusual weather patterns are the norm. Our explanations merely illustrate the need to find a meaning for what we cannot predict or control.

In other words, the hard-to-believe coincidence and the unlikely clustering of events are normal. We desperately seek to give meaning to such events -- a conspiracy, a single cause, a special power. But this natural tendency is an obstacle to clear thinking that leads to wrong conclusions and actions.

THIRD THINKING TRAP: SEEING ONLY WHAT WE EXPECT TO SEE

You've probably used the phrase "I'll believe it when I see it." But the way we operate is based on the opposite -- "I'll see it when I believe it." That's the next obstacle to clear thinking. We tend to see only what we already believe; what confirms our expectations and prejudices. In other words, belief precedes perception.

If I put on these glasses, the colored lens filters everything I see. Beliefs and expectations work the same way. They influence all our thinking, and we are unaware of the filter that colors our beliefs.

For example, how can a thin woman see herself as fat? The belief colors her perception. Her belief that "I am fat," causes her to SEE herself as overweight. No matter if a dozen friends tell her otherwise, she knows she is "fat." Victims of anorexia see themselves as too heavy no matter how thin. We see what we believe.

I have two watches, this one priced at \$98 and this at \$498. Let's say you are one of many who believe that "you get what you pay for." In other words, you believe a higher priced item is usually of better quality. This is a belief, a preconception. If you hold this belief, you will actually SEE the higher priced watch as better quality, even if it no better than the \$98 watch.

Believers in paranormal powers see ghosts. Believers in UFOs are most likely to be honored by visits from alien beings. Believers in tarot cards or palm readings are most likely to see their

futures in the readings. Their belief colors their experience to make their perception radically different from a non-believer.

Try this experiment. Mix food coloring with vanilla pudding to make it appear chocolate. Give it to some unsuspecting friends. Most will accept it as chocolate pudding. Why? Because what they EXPECT encourages them to actually taste the non-existent chocolate.

Fans watching instant replay of a close call in a football game are influenced by their expectations. Is the field goal good or not? Fans of each team will actually see the outcome as favorable to their team -- and each firmly believes it has positive proof on tape.

Here's a surprising example of how belief influences behavior. Psychologists call it the think/drink effect. People who drink flavored water under the belief it is a vodka and tonic often act as if they really drank alcohol.

How people **expect** alcohol (or any mind altering drug) to affect them influences how they behave while "under the influence."

The power of belief to influence perception can work in medicine as well. A placebo (sometimes called a sugar pill) is a pill with no chemical effects. Doctor-prescribed placebos have cured many patients. The patient's faith in medicine becomes a self-fulfilling prophecy.

A study examined 7,000 patients who had medical procedures that were later proven totally useless or who took drugs later found to have no effect on their illness. The study found that 40% of the patients reported "excellent" improvement and another 30% "good" improvement. This in spite of proof that their treatment was useless.

Even 19th century snake oil and patent medicines cured people. Faith in the power of a drug or a belief can promote self healing.

Aging is another example of expectations influencing behavior. There is no denying the influence of illness and physical changes. But people age in a way shaped by their beliefs. Those who view aging as a dreaded decline will act and feel "older."

Psychologists call this the "confirmation bias." We try to make new information fit so it agrees with what we already know. We ignore information that doesn't agree with what we *think* we already know.

Millions believe in the ability of horoscopes or palm readers to see into the future. Such belief is an example of seeing only what we already believe.

Another, related obstacle to clear thinking is to give too much weight to events that stand out in our memory and too little weight to ordinary events. Events that involve us emotionally or are highly unusual are easier to remember. The trap is we rely too much on these "easy" memories. For example, if we believe "the phone always rings when I'm in the shower," it's because this is an irritating event we remember. When we take a shower and the phone does not ring, we don't remember it; that's a non-event.

Many people believe rain falls most often on weekends. Why? Because the weekend is their time off and rain irritates them -- they remember it. That's why people who believe dreams foretell the future find support for their belief. They remember only the small percentage of dreams that somehow connect to later events. Other dreams become forgotten non-events.

If you believe strange and terrible things happen when the moon is full, you will remember such events and ignore strange events when the moon isn't full.

In other words, "We believe. Therefore, we see." We don't see things "as THEY are." We see thing "as WE are."

THINKING TRAP

SUMMARY

EXAMPLES

Confusing labels with reality.

We attach a label or category to a group of people or think and deal with the label instead of the reality. Traits are combined into labels called stereotypes.

Ethnic prejudices.
Propaganda to dehumanize enemy.
Self-fulfilling prophecy.
Members of stereotyped group "all look alike."

Giving meaning to unrelated events

Humans try to link events as causes and effects. If no meaning is obvious, we invent one.

Curse of the Grecian Urn.
Ungrounded conspiracy theories.
Clusters of disease blamed on single cause in environment.
In sports, the myth of the "hot hand" or the "streaky player."

Seeing only what we expect to see.

We tend to see only what we already believe; what confirms our expectations and prejudices.
Belief precedes perception.
We don't see things as THEY are; we see things as WE are.

The confirmation bias.
High prices for consumer goods influence opinion of quality.
Believers in psychics are most likely to find them accurate.
Think/drink effect.
Placebo effect.

Viewing ourselves in a distorted way.

We have a "built-in" blindness about ourselves. We see ourselves in a distorted way and confuse this distortion with the "real me."

Difficulty recognizing our own voice.
We see our face in its mirror image.
We attribute our success to hard work and failure to bad luck.

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FOURTH THINKING TRAP: THE INABILITY TO SEE OURSELVES

We rarely hear our own voice as others hear it. We're often surprised at our recorded voice. We think, "That's not how I sound." And then follow with a plaintiff, "...is it?"

You rarely see your own face. When you hold the printed word up to a mirror it's nearly unreadable -- it appears backwards or inside out. But why doesn't that happen when you look at your face in the mirror. Your face isn't inside out. It's there -- just like real life. The obvious answer is the face that greets you in the mirror is not the same one other people see. It is instead, the mirror image of your face. But it's the one you see so often you actually believe that's how you look. You label this mirror image as "my face." It's close enough, but it isn't your face.

A survey of high school seniors finds 70% think of themselves above average in leadership ability, and only 2% label themselves below average.

When asked "how well do you get along with others," almost all say they are above average. In fact, 60% said they were in the top 1%. These exaggerated self-assessments are not limited to students. A survey of college professors finds that over 90% think they are better at teaching than their average colleague.

Another common distortion in our self image concerns success and failure. We often attribute success to our own abilities, and failures to external circumstances. In other words, we succeed or win because we're good or talented or hard working. But we fail or lose because of unfair competition, or bad luck.

A bridge or poker player believes he is skillful, but "just doesn't get the cards." The player ignores the fact that, over time, the distribution of cards will even out. Many believe "good luck" is something only other people enjoy.

After an exam, students who do well believe the exam was fair and they studied hard. Those who do poorly often complain the exam was unfair or the questions unclear. Teachers, too fall into this thinking trap. They often attribute student success to their teaching skill, but blame failure on student laziness.

Why do we hold these beliefs? Perhaps they are important to our self-esteem. But they all stem from an inability to see a completely accurate reflection of ourselves.

Discussion Questions

CONFUSING LABELS WITH REALITY

1. We tend to see things only long enough to label them. The video used playing cards as an example of this tendency. Why does this habit work well in card games but cause problems in a “real life?”
2. Brainstorm for a list of at least 25 stereotypes. (e.g. -- dumb blondes, hot tempered red heads, etc.) Are any of the stereotypes on your list ALL true or ALL false? What danger is there in applying stereotypes to people?
3. The video points out that stereotypes thrive amid ignorance and the lack of contact between groups. Give an example of a stereotype you once held that was shattered by personal contact.
4. Why do we tend to stereotype groups to which we do NOT belong instead of groups to which we DO belong?
5. Here is a quote from the video: “We have trouble identifying members of groups we stereotype. To us, they all look alike. Police notice this when witnesses try to pick the guilty person out of a lineup made entirely of one ethnic group. Give other examples of this “they-all-look-alike” problem.
6. Each of us holds a stereotype of the “criminal type” based mainly on movies and films. How could a criminal use this stereotype to “con” someone?
7. Here is a quote from the video: “Nations at war create stereotypes to label the enemy.... Propaganda departments create labels for the enemy so they appear less than human, and therefore more ‘killable.’” Give examples of names for the enemy used in various wars.
8. What is a self-fulfilling prophecy? Can you give any examples?
9. What is the best way to replace a stereotype with a more realistic picture?
10. Colleges often strive for cultural diversity or a “rich ethnic mix” in their student body. How does this contribute to education?
11. Why is international travel (which includes contact with ordinary people in other countries) often an educational experience?
12. The video points out that contact with groups we stereotype often shatters the stereotype. Many laws were passed in the 1990s to give disabled persons more access to society. How could these laws change our stereotype of the “disabled?”

GIVING MEANING TO UNRELATED EVENTS

13. Can you think of real life or other fictional examples of “The Curse of the Grecian Urn”?

14. The video showed an example of a cluster of cancer within one mile of an abandoned battery factory as “80% above normal.” A TV reporter interviewed an angry resident who said, “cancer rates here are soaring” and “we plan to take this to the Supreme Court if we have to.” How could you explain this “epidemic” of cancer assuming you knew the old factory had nothing to do with it?

15. Statistical studies in basketball have shown that the belief in the player with the “hot hand” is a myth. Such streaks are merely normal statistical events no different from “streaks” in coin flipping. Sports fans and players do not accept this fact. If you were a basketball coach who would you let shoot the game winning basket with two seconds left -- player X who just hit four jump shots in a row and has a reputation as a streaky shooter or your star player who has hit one of his last five shots but has a reputation as a “clutch player”?

16. Give examples of weather patterns in which we give meaning to unrelated events.

SEEING ONLY WHAT WE EXPECT TO SEE

17. Explain this: We say, “I’ll believe it when I see it.” But the way we act everyday is based on the opposite, “I’ll see it when I believe it.”

18. Explain: We don’t see things the way THEY are, we see things the way WE are.

19. Explain why the best way to change the world is to change yourself.

20. What is the “confirmation bias”?

21. Many people believe that when it comes to consumer goods, “You get what you pay for.” Let’s say you are an unscrupulous retailer. How could you use this belief to cheat people?

22. A college student made a few dollars giving palm readings one summer. He found that people reported his readings amazingly accurate. He based his interpretation on reading a few books on the subject from the local library. A friend suggested he try an experiment. He said to tell people exactly the opposite of what he saw in the palm reading. So he tried this method and found that people still told him his readings were “amazingly accurate.” How can you explain this?

23. Construct an experiment with food coloring to show how expectations about a food shapes the taste.

24. Explain the “think/drink effect.”

25. If you gave 100 people at a party a “mysterious potion from the jungles of the Amazon that the natives use to induce states of altered consciousness,” would it work on any guests? P.S. The “potion” is nothing more than flavored and colored water.

26. What is a placebo? Can you give examples of their use?

27. The video showed an experiment in horoscope belief. Why did so many students rate the reading an “A” or “B”?

28. Explain the following events in terms of this thinking trap: At a local elementary school a student complains of an odor in the air and faints. Soon dozens of students are ill and some also faint. The school is closed for days but investigators fail to find any escaping gas or reasonable cause for the mass illness.

29. Below are two true stories. Discuss them individually and then compare them and explain how they illustrate that belief precedes perception:

Event #1

The time is May, 1976. The place, a high tech semi-conductor factory in Malaysia. The event: Employees run from their work benches terrified by a ten-foot tall headless ghost.

The solution: Management calls in a witch doctor who sprinkles rice and water around the factory and sacrifices a goat to appease the spirits of the dead.

Result: The workers return, and the ghost stays away.

Explain these events in terms of “I’ll see it when I believe it.” Remember that restless ghosts are very much a part of folk culture in Malaysia. If you were a worker at the factory, what would you have seen?

Event #2

The time now is May, 1995. The place, a brand new office building in the Midwestern United States. Dozens of employees leave work reporting dry throats, dizziness, nausea and other symptoms. The symptoms spread until nearly a third of the workforce is absent due to illnesses. Ill workers blame their condition on the air in the new building.

The solution: Management calls in specialists to investigate another example of the “sick building syndrome.” Over a million dollars is spent redesigning air vents and filters even though engineers find nothing wrong.

Result: Months later workers return and the situation returns to normal.

Discuss these events in terms of “I’ll see it when I believe it,” and the placebo effect. How does this story compare to that of the Malaysian ghost?

30. The video points a related obstacle to clear thinking -- we give too much weight to events that stand out in our memory and too little weight to ordinary events. Events that involve us emotionally or are highly unusual are easier to remember.

The thinking trap is we rely too much on these easy memories. Explain the following in terms of this thinking trap:

The phone always rings when I'm in the bathroom.
It always rains right after I wash my car.
It rains on the weekend and clears up on Monday.
I often have "dreams that come true."

THE INVISIBLE SELF

31. Why are we often surprised at hearing a recording of our own voice?

32. Why do so many people think their snapshots of other people are pretty good but when people take pictures of me "they don't come out right?"

33. A study involved showing people photographs of themselves and asking to pick the one they liked best. Some of the photos were mirror images. The study found people picked the mirror image more often than the standard photo. Why?

34. Explain these results in terms of the invisible self:
A survey of high school seniors finds 70% think of themselves above average in leadership ability, and only 2% label themselves below average. When asked "How well do you get along with others," almost all say they are above average. In fact, 80% said they were in the top 1%.

35. Conduct an informal survey and ask people if they are more likely to be "lucky" or "unlucky." Compare results and offer an explanation.

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