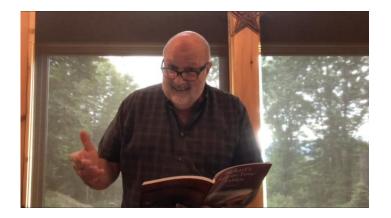
# Science Lesson #3 Interrogation and Observation (3 Bowls)

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**Introduction to Fables and Science** 

### **Today's Lesson**

The 3 Bowls is a very popular science demonstration in textbooks of old. It usually goes something like this.

- 1. Put one hand in cold water, the other in hot. Now put both in medium water.
- 2. Note that the hot hand feels cold and the other hot.

It's fun and light and is used to form the conclusion that you cannot trust your senses. I have a problem with this. In fact, I have three.

- 1. It is does not encourage *critical thinking*.
- 2. It is not good *observation*.
- 3. It does not build character.

Check out the video to see what I mean. [Play video here to see live demonstration.]

And for a complete description of 3 Bowls, read how my mentor, Mr. T., taught it to me. He was funny and smart! See <u>Chapter 10</u>, <u>"Mr. T." from the book, *The Next Version of You* (Bickart, 2018).</u>

## 3 Bowls

### **Old Conclusions:**

- •Your senses cannot be trusted
- •You are a machine



### 3 Bowls

New Conclusions using *Critical Thinking*:

- Your senses can stop analytical thought!
- Your senses can catapult you to be the OBSERVER!



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Now for some provocative thoughts.

Science has a social impact! If we project an expectation that people are machines - and not very good ones at that, we do a great disservice to the character of our students. While they should use technological devices and machines for measurements, our overly mechanical projections are encouraging them to give it over to technology for entertainment, recreation, and plain old fun. But this leaves out the human and nature. No one is going outside to play! No wonder.

And further, we interrogate nature to learn about her by first projecting that she is a series of machines and physical substances, then by learning how she works by ripping her apart to see how the parts work. Instead of this type of *interrogation*, we need to use more *observation*. We need to ask how things work by watching nature and following her lead to see what she is saying. In other words, we need to *read the book of nature* instead of narrowly asking specific questions that reduce the chance of her giving a full answer.

Here are some fables [Fable #4] [Fable #60] [Fable #88] [Fable #92] [Fable #128] [Fable #146] (Bickart, 2020a, Volume 1; 2020b, Volume 2; 2020c, Volume 3) that portray this provocative idea in story form.



# #4 The Bear and the Tree

A very hungry bear wanted to know where to find honey. All day, he went to different trees in the forest and asked if they had honeycombs in them. His method of asking was to scratch the trees open and look

inside. Finally, with weary arms and sore paws, but without honey; he went to sleep famished. The next day he decided to try a different tact. He went up to the wise, old oak tree. "Father Oak, you know the comings and goings of the woods. Can you tell me where to find honey in this forest?" The oak looked down with compassion on the bear and answered, "I and my fellow trees have been watching you ask for your honey by ripping many trees apart; and we were wondering when you would realize that you have only to ask us. For we know where the honey is and we are happy to tell you."

ASK IN THE RIGHT WAY, AND YOU MAY GET YOUR ANSWER

# Interrogation and Observation

### Why Use Fables to Teach Science?

### **Conversation Starters**

- Can you think of more than one way you have asked for something? Which way do you like more?
- What do you think is the effect on the forest when the bear scratched the trees open?
- What do you think the oak means when he says, "you have only to ask?"?
- Have you seen science experiments that 'ask a question'? What is the question? How do you think it was asked? Can you apply your critical thinking to create new ways to ask questions?

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#### References

- Bickart, J. (2018). The next version of you: 12 stories that highlight the use of intuition to update your life.
- Bickart, J. (2020a). *Bickart's Just-in-Time Fables (Volume 1)* (Vol. 1). Asheville, NC: Red Shirt Interactive Group.
- Bickart, J. (2020b). *Bickart's Just-in-Time Fables (Volume 2)* (Vol. 2). Asheville, NC: Red Shirt Interactive Group.
- Bickart, J. (2020c). *Bickart's Just-in-Time Fables (Volume 3)* (Vol. 3). Asheville, NC: Red Shirt Interactive Group.