

Attractor States

Observe:

Attractor states and detractor states are something most of us understand intuitively, but probably don't have words for. To better understand these related concepts, imagine a bowling alley where the bowling lanes have all been altered to become either attractor states for strikes or detractor states for gutter balls. Before we explore the definition of these terms, make a guess as to how the lanes have been altered with to become attractor states for strikes or gutter balls.

Question: How do you think the lanes were altered to make the bowling balls curve?

Answer: In the attractor state lanes, along the whole length of the lane, the middle of lane has been lowered by several inches so that as the bowling ball rolls down the lane towards the pins it is drawn by gravity down into the (lowered) middle of the lane. This action causes the ball to head straight down the middle of the lane towards the first pin. And in the other lanes, the detractor state lanes, the opposite effect has been created. The lanes are higher in the middle so that the ball drifts out toward and into the gutters.

Analyze:

Question: If your goal was to get the highest score possible, which lane would you want to bowl in? Why? Also, if you were an engineer and wanted to increase the attractor or detractor state function, what changes might you make?

Hypothesize: Can you come up with educated guesses for the definitions for attractor state and detractor state?



Linguistic Definition: Situations where an outcome becomes more likely as a result of a change in the underlying conditions is called an attractor state. And, when conditions cause a situation to become less likely to occur, it is called a detractor state.

To be clear, attractor states are not exactly about cause and effect. They are about conditions being adjusted to make certain outcomes more likely. It is possible for someone to get a strike in the “detractor state” bowling lane and it is possible for someone to throw a gutter ball in the “attractor state” lane. It is simply more likely that strikes happen in the attractor state lane and not in the detractor state lane, and vice versa

Discuss as a class: How does this explanation of attractor and detractor state relate to the bowling alley scenario?

Extend:

We are thinking about attractor and detractor states because they can be used to help us clarify and focus our intentions on the functional motivation for our actions.

Scenarios: Here are some situations, choose at least two scenarios and see if you can determine if the given scenario describes an attractor state or detractor state.

Is this an attractor or detractor state for *self-esteem*?

Gustav knows he said something hurtful to his best friend but feels uncomfortable making amends. He journals about his uncomfortable feelings, talks with a trusted mentor, and in the end realizes he made a mistake and apologizes for his hurtful comment.

Is this an attractor or detractor state for *new experiences*?

Leonardo feels stuck in a rut. He wants to meet new people and try new things. He also loves playing his Gameboy Advance. He decides to stop playing his Gameboy in his room with the door closed, but instead plays his Gameboy outside in the park across the street from his house. Recently, he has seen other boys his age playing in the park, and he thought they looked like people he might enjoy spending time with.

Is this an attractor or detractor state for *language learning*?

Frida is not enjoying studying Spanish in class (it’s right after lunch and she’s always sleepy), but she really does want to get better at speaking Spanish. She decides to watch old episodes of her favorite TV show in Spanish during her math class before lunch.

Is this an attractor or detractor state for *making friends*?

Tina often feels uncomfortable and angry. She has one friend, Olga, and wants to make new friends. One day at lunch Tina sees Olga talking to a group of people that Tina wants to become friends with. Tina is overcome with jealousy that Olga is talking to



these people, instead of her. Tina storms over to them all and yells at Olga for being a horrible friend and talking to “these jerks.”

Is this an attractor or detractor state for *intercultural experience*?

Juan is studying Chinese and enjoys learning about the Chinese culture. He wants to get good at the language and thinks approaching the language through the culture will be helpful. He asks his parents if he can study abroad in China for a year. They say no but agree to host a Chinese study abroad student for a year in their home.

Questions: What attractor states have you already engineered in your life without realizing it? If none come to mind, can you describe an attractor state designed for you by your school environment (e.g. by one of your teachers, by the administration, by the architecture of your school building or classroom arrangement)?

What simple things could you do to construct an attractor state for language learning (or another subject you would like to improve in)? Make sure to consider your own genuine interests and commitment level and the things you are already doing that could be subtly changed to become more productive attractor or detractor states.

