

Why Overconfidence Occurs and How to Overcome It

by Winston Sieck - April 12, 2013

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Overconfidence happens to all of us. Ever have a plan that just couldn't go wrong? And then you get a kick in the butt. Ever know that something must be true, only to find out later that you had it backwards? Overconfidence is when you think you are more likely to be right than you actually are.

Overconfidence is a real problem. When you are too sure that you've got it right, then you don't try to improve your understanding. You tend to not check your facts, or try to learn more.

People will often say that you need to have confidence in yourself. Confidence can help motivate us to action. Overconfidence can make us wish we'd prepared a little better first. [Thought more critically](#) about the issue.

[Winston Sieck](#), Ed Merkle, and Trish Van Zandt of the Ohio State University studied overconfidence among college students using a test of financial knowledge. The researchers created a cognitive model that explains why overconfidence occurs. They also tested ways of overcoming overconfidence based on the model. Their paper, "[option fixation: a cognitive contributor to overconfidence](#)" was published in the journal *Organizational Behavior and Human Decision Processes*.

The researchers chose finance, because knowledge of financial management is important in everyday life. Failing to understand finance can lead to poor financial decisions and loss of real money. If people are overconfident about their knowledge of finance, they won't try to understand it better.

The test was based on one used by the [JumpStart Coalition for Personal Financial Literacy](#). It covered general financial topics, such as bank accounts, insurance, and interest. An example question was:

If you have caused an accident, which type of automobile insurance would cover damage to your own car? (a) collision, or (b) liability

For each question, students first chose between the two options. Then, they reported their confidence from 50% to 100% that their answer was correct.

For this kind of test, an overconfidence effect is found when average confidence is higher than the proportion of correct answers. For example, suppose a person is 85% sure of their answers on average. Yet, they only get 65% of the questions correct. That is a sizeable overconfidence effect.

Lots of experiments have found overconfidence using tests about lots of different things. It is most often found for challenging tests. In this case, the research team did find an overconfidence effect for the financial knowledge test. So, why does overconfidence occur?

Sieck and colleagues described a cognitive process model of how people answered questions on the test,

and the confidence they felt in their answers. They called the model, the Assess-Search-Construct (ASC) model. Then, the research team used the model to identify points in the cognitive process that produce overconfidence.

According to ASC, there are three basic steps people go through to make a choice on this kind of test and appraise their confidence in it.

1. Take the option that seems more familiar as a first guess.
2. Search memory for facts that relate the question and the first guess.
3. Explain why that first guess is true

The model is called Assess-Search-Construct (ASC), because people first *Assess* the familiarity of the options, then *Search* memory in order to *Construct* an explanation about why the high-familiarity option is true.

ASC does not say overconfidence happens in every instance. People can feel like they are guessing in some cases, and be completely certain in others.

On the low-confidence end, no facts are retrieved from memory. The memory search fails. Without facts, the person cannot explain why his or her choice is true. The end choice feels like a guess. If possible, the individual might do more research. They might ask someone else or look for more information on the web.

At the other extreme, facts about the topic flood in from memory. An explanation forms in the person's mind that really seems right. They feel extremely confident that their initial impression is spot on.

There are a couple of points in this cognitive process that lead to overconfidence:

- People tend to focus on that first guess. They mostly ignore the other alternative. This is called "option fixation."
- People are too easily satisfied with their explanations. When we keep them to ourselves, our [explanations tend to be far more shallow than we think](#) they are.

Sieck and colleagues tested these ideas about why overconfidence occurs. They designed several methods to reduce overconfidence. The main idea was to get people to think about each option separately and independently. In the final method, they also had students write out their explanations. Here's how it worked, using the example above:

1. Read the question and choose between the two options: (a) collision, or (b) liability
2. Look only at option (a): collision
3. Assume you have found that option (a) is true. Explain why this option is true.
4. Look only at option (b): liability
5. Assume you have found that option (b) is true. Explain why this option is true.

The method was found to work in several experiments. This and similar methods greatly reduced overconfidence. You can adapt it to other kinds of situations, as well. Why does it work?

As you can see, this method keeps you from fixating on that initial guess. It's important to just focus attention on that one option. The trick of assuming you already learned it's true also helps break the fixation. Writing out the explanation keeps you from fooling yourself about how deep your understanding really is. Talking with a friend about it would do the same.

Sometimes we feel so sure that we cannot be wrong or that our plans can't possibly fail. That is in itself a good sign of a momentary lapse into overconfidence. Try the technique above as a way to explore other possibilities, and keep yourself grounded.

Image Credit: [Graeme Newcomb](#)

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