

## Column 9: Exploring Mysteries of Living: Some Fictitious Causes



Copyright © 2019 by **Stephen F. Ledoux**

### **A Los Alamos member of The International Behaviorology Institute**

*Why these Columns?* Because human behavior causes global problems, and solving these problems requires changes in human behavior... So *everyone* benefits from knowing something about the natural science of human behavior (called behaviorology) that these columns relate. Having first appeared as newspaper columns, these columns began appearing on **BehaviorInfo.com** starting in 2020.

The magazine, *Consumer Reports*, regularly carries articles on the benefits of maintaining a healthy weight, even if that requires some special diet. All too commonly, people claim that to maintain a diet one must *restrain oneself* from all the chocolates (Heaven forbid!) and one must exert lots of *will power* to eat only the right foods in the right amounts.

Are self restraint and will power really the causes of successful dieting behavior? Are they the only or best advice for healthy and successful dieting? Or are they misleading? Let's examine some behavior causes that share characteristics with self restraint and will power. Are they adequate explanations of behavior, or are they fictions that fail to explain?

The answer makes a difference. Fictional accounts are unnecessary, redundant, harmful, and not explanations at all.

For all of history until about 100 years ago, fictional explanations for behavior constituted the main, if not the only, game in town. In his courageous 1995 book, *The Demon-Haunted World*, Carl Sagan referred to science "as a candle in the dark." We must turn that candle into a floodlight exposing the whole variety of unhelpful accounts for behavior while illuminating the helpful accounts from natural behavior science. We thereby support this science in helping solve local and global problems.

Along with other authors, Sagan has exposed a multitude of false and otherwise invalid explanations for many natural phenomena. Here we deal with the false and otherwise invalid accounts, particularly of the fiction kind, that pertain to behavior.

Note, however, that our most fundamental objection to fictitious accounts is *not* that they are fictional, that they do not exist, although this forcefully compels our attention. The

real objection is that such accounts are irrelevant to the scientific understanding, prediction, control, and interpretation of behavior.

Fictitious accounts involve no variables that direct experimental manipulation can show to be functionally related to behavior. Thus they provide no variables that can be changed to help improve behavior.

Consider the kind of fictional explanation that we call *reification*, which comes from the verb “reify.” Both words mean taking the kind of abstraction that involves “something lacking physical quantities or qualities,” and treating it as if it were real, with a concrete, material existence.

While initially an abstraction may begin as a mere conceptual device to help explore a topic, often metaphorically, the mere repetition of the abstraction often leads to its use as something real, as if it indeed had physical status. But it lacks any such status, and so its use as an explanation is scientifically inadequate. Scientific explanations must involve events with physical status, detectable and measurable.

For example, consider the abstraction that we call the “mind.” In the process of secularizing the soul, people began by using the “mind” (or the “psyche” or the “self”) to explore the possibilities metaphorically. The body behaved *as if* the mind was telling it what to do. Soon, however, they were using the “mind” as the secular but still non-physical controller of the body. Losing the metaphor left us saying, “The body behaves the way the mind tells it to behave.” This standard kind of comment reifies the mind.

For another example, consider the abstract concept of “personality.” People used this word originally as a verbal shortcut to *describe* a consistent set or pattern of behaviors typical of a particular individual. The concept still serves this purpose well.

“Personality” soon got used, however, as the *explanation* for the behavior pattern. Their personality makes people behave in those patterns. And people added other adjectives, each describing one or another *type* of personality, such as an introverted personality or an aggressive personality. Rather than being helpful, though, this disguises, and thus compounds the problem.

The adjectives began to describe the kinds of behaviors that the personality supposedly compels from the individual (for example, “he slugged the other guy because of the aggression that his aggressive personality compels”). Furthermore, the adjectives make the noun, personality, seem all the more real, which it is not!

“Personality” still lacks any physical status, along with any parts or processes attributed to it. So its use as an explanation is an example of reification. As such, personality is a scientifically inadequate explanation. What other reifications can you report?

The term *nominal fallacy* denotes another common fictional explanation for behavior. “Nominal” means naming things. After we observe a behavior, we pin a name on our observation and begin taking that name as the cause of the behavior we observed. Nominal fallacy, then, really just means giving a name to something and taking that name as the thing’s cause.

Here is an example. You observe a skillful performance. Then you describe the

performance with the adjective “talented,” which is an accurate description. But descriptions are not explanations. Descriptions are not variables that can be changed to improve behavior.

Soon, that description, “talented,” gets changed into the noun “talent,” which leads to *explaining* the skillful performance in terms of an inner possession of talent. “She acted so well *because* she enjoys a wealth of talent.” Yet this only names the observation, by changing the adjective “talented” into the noun, “talent.” This makes “talent” a nominal–fallacy type of fictional explanation.

Of course, when the behavior is desirable, like a skillful performance, nominal fallacies cause few problems. But what about when the behavior is undesirable? Here is such an example.

You observe a young teenage boy snapping constantly at everyone around him. Then you describe him as having a lot of hostility. Finally, you explain the snapping in terms of the hostility saying, “He snaps at everyone because he suffers much hostility.” Yet this only names the observation. Thus this is not a cause. This makes “hostility” a nominal–fallacy type of fictional explanation.

In this undesirable–behavior case, the nominal–fallacy creates problems. Since “hostility” cannot be changed to reduce the hostile behavior, how can helpful intervention proceed? We must stop using such fictional causes. Then the first step of a helpful intervention can begin, which is to identify the independent variables actually responsible for the hostile behavior. (A future column topic?)

Here is a final example, although you could easily come up with plenty more. You observe a sixth–grade girl achieving good grades in high school level science and math. You describe her achievement as very intelligent. But then you speak of her as endowed with great intelligence. Finally, you explain her good grades in terms of that intelligence saying, “She achieves such good grades well above her level, because she commands so much intelligence.”

The statement may make you and her feel good (a reason why it happens?) but does it really explain her behavior? You have only named your observation, which is not a cause, which makes “intelligence” a nominal–fallacy type of fictional explanation.

Does that discussion of the girl's math behavior cause any harmful problems? Probably not. But what about the high school student that she tutors? Is it helpful, or harmful, to say that he is math dumb? Do such labels lead to helpful interventions? What addressable variables can lead to poor math behavior? (A future topic.)

Remember *Consumer Reports* and our question about whether self restraint and will power were the causes of successful dieting behavior? Let’s summarize the answer that you may already be supplying from this discussion of explanatory fictions. We can immediately acknowledge self restraint and will power as fictitious causes of dieting or any other behavior, because they share common characteristics with other explanatory fictions (as this and future columns show).

Even the analysts at *Consumer Reports* knew this intuitively, that is, they knew this due to various contingencies inducing them to recommend *practical* steps that could indeed

lead to success. In an article in the February 2009 issue of *Consumer Reports*, analysts “were able to identify six key behaviors that correlated the most strongly with having a healthy body mass index (BMI), a measure of weight that takes height into account” (p. 27).

The six key *behaviors* are watch portions, limit fat, eat fruits and vegetables, eat whole grains rather than refined grains, eat at home, and exercise, exercise, exercise! Just reading the list of these behaviors helps bring the reader under some of the contingencies relating these behaviors to the reinforcing outcomes to which the phrase “successful dieting” alludes.

Dieting is predictable and controllable, and behaviorological principles apply to generating and maintaining this behavior. However, in a pattern typical of fictional accounts, the fictitious causes that we call self restraint and will power are not only unnecessary and redundant but also can cause the harm of continued ill–health, by not really helping dieting.

Any dieting success actually accrues to a range of real independent variables. Behaviorological practitioners have applied these for decades. For example, see the 1972 book, *Slim Chance in a Fat World* by Stuart and Davis. Again, while behaviorology, like all natural sciences, lacks explanations for everything, *fictitious alternatives are not explanations at all*.

*Writing these columns occurs separately from membership in The International Behaviorology Institute (TIBI, at [www.behaviorology.org](http://www.behaviorology.org) where you can always find more information and resources). The author is not speaking for TIBI, and the author and TIBI need not be in agreement. TIBI welcomes feedback, members, and donations (501.c.3). This is column 9 of 72.*