

## 8.2 Sceptical Doubts and Puzzles (p. 194)

### *The Gruesome Problem*

NELSON GOODMAN INVENTED THE adjective *grue* to raise a different problem about induction.

We can define *grue* as follows:<sup>1</sup>

Something is to be called *grue* if

(a) it's earlier than time *T* (say time *T* is January 1, 2050), and the thing is green;

or

(b) it's time *T* or later, and the thing is blue.

Now, all the emeralds we have seen so far have been green; so induction by enumeration permits us to conclude that all emeralds are green, and thus to predict that emeralds we see during 2050 will be green.

But all the emeralds we have seen so far have been *grue* as well. (If you don't see why, examine that definition of *grue* carefully.) So induction by enumeration permits us to conclude that all emeralds are *grue*, and thus to predict that emeralds we see during 2050 will be *grue*. But if an emerald is *grue* in 2050, it follows from the definition above that it is blue then, not green.

So perfectly good reasoning using induction by enumeration leads us to two contrary predictions: that emeralds in 2050 will be green, and that they will be blue. And, of course, because all emeralds so far have also been *grelow*, we can confidently predict that they will also be yellow. And so on.

In short, induction by enumeration yields all sorts of contrary predictions. We can invent an adjective that will allow us to use that principle to predict anything we like. It's useless.

Has something gone wrong with this reasoning?

Some people react to the *grue* problem by claiming that it's illegitimate to predict that things will continue to be *grue* because the idea of *grue* is itself illegitimate for prediction purposes, containing, as it does, mention of a particular time. But Goodman replies that it's not necessary to define *grue* this way. Here's his argument. We can define *bleen* as follows:

Something is to be called *bleen* if

(a) it's earlier than time *T*, and the thing is blue;

or

(b) it's time *T* or later, and the thing is green.

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<sup>1</sup> What I give is not exactly Goodman's definition, which is controversially ambiguous and introduces unnecessary complexities. My version makes exactly his point, but better.

Now suppose that someone took *grue* and *bleen* to be basic (as we take *green* and *blue* to be basic). Then that person might say that *our* terms *green* and *blue* were the peculiar ones, illegitimate in making predictions. For *that* person might claim that *green* and *blue* are defined in terms of *grue* and *bleen* plus mention of time *T*. (See if you could construct definitions of *green* and *blue* in terms of *grue* and *bleen* and time *T*.) This seems to show that what you count as illegitimate depends on where you start.

If this is right, it's a very startling and important conclusion: it appears to show that our way of thinking and talking about things partly determines what generalizations we take our experiences to establish. That is: if we think/talk one way, we take our experiences to give evidence for a general proposition **G**, but if we think/talk another way, those same experiences will be taken to be evidence for another proposition incompatible with **G**.

**FOR FURTHER READING:** Goodman introduced *grue* and its problems in *Fact, Fiction and Forecast*; see Chapter III, part 4.

Every weekday morning, the CBC radio network used to broadcast a popular three-hour interview program across Canada hosted by a genial man named Peter Gzowski. One morning a few years ago I happened to be home, and the radio was on. Gzowski was interviewing a sociologist who had made a study of academic humour, travelling from campus to campus collecting jokes from the various academic disciplines. Here's approximately how part of that interview went.

"Which discipline has the most jokes?" asked Gzowski.

"Mathematicians have a lot of mathematics jokes," said the sociologist, "but philosophers have far and away more jokes than anyone."

"Tell a philosophy joke," said Gzowski.

"Well, I just heard one the other day but I didn't understand it, and I don't think you will either."

"Doesn't matter—let's hear it anyway."

"Okay. It's a riddle. The question is: What's a *goy*?"

"I dunno. What's a *goy*?"

"The answer," said the sociologist, "is: Someone is a *goy* if they're a girl before time *T* or a boy after."

A couple of seconds of radio silence followed. Then Gzowski said "I don't get it." "Neither do I," said the sociologist. Neither did the vast majority of Canadians listening. But you do.