A new riddle

The solution to Hume's problem means that we *are* justified to follow our established deductive and inductive practices. Hurrah! But Goodman has bad news:

Argument A

1. Emerald_1 is green
2. Emerald_2 is green
3. Emerald_3 is green
... ...
n. Emerald_n is green

Therefore, all emeralds are green

Argument B

1. Emerald_1 is grue
2. Emerald_2 is grue
3. Emerald_3 is grue
... ...
n. Emerald_n is grue

Therefore, all emeralds are grue

Argument A clearly conforms to standard inductive practices. But then so does argument B. An object is grue if and only if the object is either (1) green, and has been observed before now, or (2), blue, and has not been observed before now. All observed emeralds are green and so are grue.

> Thus according to our definition, the prediction that all emeralds subsequently examined will be green and the prediction that all will be grue are alike confirmed by evidence statements describing the same observations. But if an emerald subsequently examined is grue, it is blue and hence not green. Thus although we are well aware which of the two incompatible predictions is genuinely confirmed, they are equally well confirmed according to our present definition. (1955, 74)

This is puzzling: it shouldn't be okay to predict that the next emerald we will encounter is blue on the basis of only having seen green emeralds. Moreover, the inductive conclusions of A and B contradict each other: Argument A predicts that any emerald you later encounter is green, while Argument B predicts that it is grue, i.e. blue.

Hume's problem was to explain the validity of certain inferences or patterns of reasoning. The new riddle is about how to explain why some empirical hypotheses are legitimate and others are not.

Is there something wrong with 'grue'?

You might think there's something wrong with the predicate 'grue'. But what? Perhaps it's semantically artificial or unnatural. Perhaps here's why: it is defined 'relationally', i.e. its definition includes reference to *times* of observation.

But this can't be the problem, because 'grue' is, just as 'green', not *itself* a relational predicate (compare '... is grue' with the predicate '... is the time before ...'); and also 'green' has a definition that includes reference to *times* of observation:

A. An object is **grue** if and only if the object is either (1) green, and has been observed before now, or (2), blue, and has not been observed before now
B. An object is **bleen** if and only if it is either (1) blue, and has been observed before now, or (2) green, and has not been observed before now
C. An object is **green** if and only if it is either (1) grue, and has been observed before now, or (2) bleen, and has not been observed before now

So should we accept that, semantically, 'green', 'grue' and 'bleen' are on a par? This seems uncomfortable. Only 'green' describes a *quality,* green; there surely is no quality grue or bleen?

> But the argument that the former but not the latter are purely qualitative seems to me quite unsound. True enough, if we start with 'blue' and 'green', then 'grue' and 'bleen' will be explained in terms of 'blue' and 'green' and a temporal term. But equally truly, if we start with 'grue' and 'bleen', then 'blue' and 'green' will be explained in terms of 'grue' and 'bleen' and a temporal term; 'green', for example, applies to emeralds examined before time *t* just in case they are grue, and to other emeralds just in case they are bleen. Thus qualitativeness is an entirely relative matter and does not by itself establish any dichotomy of predicates. (1955, 79-80)