Recall the justification of deductive reasoning I offered a few weeks back. Take, for instance, the inference known as ‘Modus Ponens’:

\[
\text{If } P, \text{ then } Q \\
\hline
P \\
\hline
Q
\]

We said: look at the truth-table for the sentential connective ‘If _____, then ____’:

<table>
<thead>
<tr>
<th>P</th>
<th>Q</th>
<th>If P then Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>T</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>F</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>F</td>
<td>F</td>
<td>T</td>
</tr>
</tbody>
</table>

We know, from the definition of deductive validity, that if every way of making the premises both true is also a way of making the conclusion true as well, then the argument is deductively valid. And we know, from the truth-table, that if ‘P’ is true, then, if ‘If P, then Q’ is true, then ‘Q’ must be true as well (since, if ‘P’ is true, then we must be in the first two rows. And, if we are in the first two rows, then if ‘If P, then Q’ is true, then we must be in the first row; where ‘Q’ is true.) So, if ‘P’ is true and ‘If P, then Q’ is true, then ‘Q’ must be true as well. So the argument is deductively valid.

But hold on. Let’s think about that reasoning a bit more carefully. As Haack notes, the reasoning I just gave went like this:

P1 If ‘P’ is true, then, if ‘If P, then Q’ is true, then ‘Q’ is true. [truth-table]

P2 ‘P’ is true.

C1 If ‘If P, then Q’ is true, then ‘Q’ is true. [P1, P2, MP]

P3 ‘If P, then Q’ is true.

C2 ‘Q’ is true. [C1, P3, MP]

But this is just two applications of Modus Ponens. And so my defense of deduction looks circular in exactly the same way that Hume argued our inductive inferences were circular. We’re presupposing the very same rule of inference whose validity we are attempting to establish. Just as, in the case of induction, we were forced to presuppose the very rule of inference (that the future will resemble the past) that we were trying to establish.
• Recall that, in the case of induction, we considered a different rule of inference: a counter-inductive rule that presupposed that the future would not resemble the past. That rule allowed inferences like the following (the triple line indicates that it’s a counter-inductive inference):

\[
\begin{align*}
\text{The sun has always risen in the past.} \\
\hline
\text{The sun will not rise in the future.}
\end{align*}
\]

We saw that the counter-inductive rule of inference could be used to circularly support itself in exactly the same way that induction could be used to circularly support itself:

\[
\begin{align*}
\text{The future has always resembled the past in the past.} \\
\hline
\text{The future will not resemble the past in the future.}
\end{align*}
\]

• Haack notes that a similarly rule-circular argument could be given to establish the deductive validity of an inference of the following form (which she dub’s ‘Modus Morons’):

\[
\begin{align*}
\text{If } P, \text{ then } Q \\
\hline
Q \\
\hline
P
\end{align*}
\]

• Here’s a rule-circular argument for the deductive validity of Modus Morons:

\[
\begin{align*}
P1 & \quad \text{‘}Q\text{’ is true.} \\
P2 & \quad \text{‘If } P, \text{ then } Q\text{’ is true.} \\
\hline
C1 & \quad \text{If ‘If } P, \text{ then } Q\text{’ is true, then ‘}Q\text{’ is true [P1, P2, and truth-table]} \\
P2 & \quad \text{If ‘}P\text{’ is true, then, if ‘If } P, \text{ then } Q\text{’ is true, then ‘}Q\text{’ is true. [truth-table]} \\
\hline
C2 & \quad \text{‘}P\text{’ is true. [C1, P2, MM]}
\end{align*}
\]

• So, it looks like all the same problems that arose for induction arise for deduction as well. We can’t justify our rules of deductive inference without recourse to those very rules of inference, and there are alternate deductive rules of inference which are capable of justifying themselves in exactly the same way.

• Hence, following Hume’s line of reasoning (applied to deduction): we don’t have any good, non-circular reason to think that the conclusions of our deductive reasonings will be true.