

Week 5 Writing Activity: *The Scientific Attitude*, Ch. 4

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1 Necessity Criterion, and The Scientific Attitude

What are the two pieces of the scientific attitude?

In Ch. 4 of *The Scientific Attitude*, we begin to understand how the scientific attitude can form a “necessity criterion” for science, given that there is a scientific community willing and able to discern if the scientific attitude is being applied correctly to a field. For each field in Tab. 1, follow the prompt to decide whether or not it is a form of science based on this criterion.

Criterion	Type	Field	Yes/No
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Physics	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Particle Physics (e.g. Big Bang)	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Quantitative Sociology	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Quantitative Finance/Economics	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Creationism	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Climate Science	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Climate Skepticism (viral outbreaks)	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Biological evolution	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Kinesiology	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Business administration	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Quantitative psychology	
If <i>field</i> is scientific, then it follows <i>the scientific attitude</i> .	Necessity	Digital Art and Design	

Table 1: For each prompt, think very carefully about choosing yes or no, given the logical structure of the situation.

2 Leadership Characteristics

Essay development. Given what we have read about leadership qualities, outline a concise essay below that describes a moment in your life when you had to demonstrate these qualities. Your essay should be approximately 1000 words. In addition to describing a moment in your life, you should draw a connection to the character qualities that make for good science as shown in Ch. 3 of the book.