

# Which of these arguments are valid? Which are sound?

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1. All men are mortal.
2. Socrates is a man. \_\_\_\_\_
- C. Socrates is mortal.

1. All philosophers are annoying.
2. Socrates is a philosopher. \_\_\_\_\_
- C. Socrates is annoying.

1. All men are mortal.
2. Socrates is mortal. \_\_\_\_\_
- C. Socrates is a man.

1. Either Notre Dame will win the National Championship, or USC will win the National Championship.
2. USC will not win the National Championship. \_\_\_\_\_
- C. Notre Dame will win the National Championship.

1. Today is Thursday. \_\_\_\_\_
- C. Today is Thursday.

1. If the moon is made of cheese, it will soon become moldy.
2. The moon will not soon become moldy. \_\_\_\_\_
- C. The moon is not made of cheese.

Sometimes we talk not about whether particular arguments are valid or invalid, but about whether certain *forms* of argument are valid or invalid. An example of a form of argument is:

1. If  $p$ , then  $q$ .
2.  $p$ . \_\_\_\_\_
- C.  $q$ .

You can think of ' $p$ ' and ' $q$ ' here as standing for sentences. When we ask whether the above argument form is valid, we are asking whether, *no matter what sentences we plug in for  $p$  and  $q$* , we would get a valid argument. Often, when evaluating a philosophical argument, it is useful to take a step back and ask: is this a valid form of argument?

Which of the following are valid forms of argument?

1. If  $p$ , then  $q$ .

2.  $q$ .

C.  $p$ .

1. If  $p$ , then  $q$ .

2. Not  $q$ .

C. Not  $p$ .

1. If it had been the case that  $p$ , it would have been the case that  $q$ .

2. If it had been the case that  $q$ , it would have been the case that  $r$ .

C. If it had been the case that  $p$ , it would have been the case that  $r$ .

This last one certainly looks valid. But here is an instance of this argument-form which calls this into question:

1. If Tommy Rees had helped USC beat Notre Dame in 2010, he would have cheated.

2. If Tommy Rees had gone to USC rather than Notre Dame, he would have helped USC beat Notre Dame in 2010. \_\_\_\_\_

C. If Tommy Rees had gone to USC rather than Notre Dame, he would have cheated.

Does this example show that the argument-form above is not, after all, valid?

Sometimes arguments are valid, but do not seem to be of a valid form. An example might be:

1. My shirt is bright red all over. \_\_\_\_\_

C. My shirt is not bright green all over.

So if an argument is not of a valid form, that doesn't automatically mean that the argument is invalid. But if the argument *is* of a valid form, that does automatically mean that the argument is valid.

Often, we begin with an intuitive argument that is not stated in premise/conclusion form. To see whether this informal argument is valid, it often helps to try to find a more formal statement of the argument. Try to re-state the following informal argument in premise/conclusion form so that it is valid:

“If God were all good, he would stop suffering from happening if he could, and if God were all powerful he could stop all suffering from happening. But nothing which was not all powerful and all good could be God. So, since suffering happens, God must not exist.”

Suppose I had asked you to restate this informal argument in premise/conclusion form so that it is not only valid, but also sound. Would that be a fair assignment?

