

- a.) **psychological certainty:** When one *feels* certain that  $p$  (where  $p$  is any statement.<sup>1</sup>)
- b.) **epistemological certainty<sup>2</sup>:** There must be overwhelming evidence for  $p$ .
- c.) **deductive certainty:** When  $p$  is the conclusion of a sound argument (or proof).  
 More generally, when not- $p$  is contradictory.

**Consider the following events by which one can make a claim  $p$ . Check box that you think best fits the kind of certainty:**

- 1.) The weather is deteriorating, as you're driving home, with several friends in your car. You turn on the radio, and the emergency broadcast system issues a tornado warning and reports numerous tornados touching down in your area. You and you friends spot a what appears to be a funnel cloud in the distance (approximately 10 miles away.)

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
	X		X			

- One could equally argue that the most reasonable choices are b) alone, since one is surrounded by overwhelming evidence that tornados are touching down where you're driving, nevertheless this alone may not cause you to *feel certain* that what you're seeing in the distance is indeed a tornado. (On the other hand, you could equally well argue that you *feel certain* it is, despite poor visibility, etc.)

- 2.) Your lover or partner or spouse whom you have been and continue to be steadfastly devoted to for many years has actually been cheating on you for many years...It's the talk of the town, an 'open secret.'

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
	X					

- This is definitely a case where you're overwhelmed with evidence (assuming the hearsay constitutes good evidence)

<sup>1</sup> Recall defn.: (p 1 Odell ) A **statement** is the use of a **sentence** by a speaker to make a claim. A **sentence**, in turn, is a string of meaningful symbols (**words** or **names**) in a natural language. A **word** is a conventional use of a symbol with a meaning in the context of a language, whereas a **name** is the use of a **symbol**, usually without any linguistic meaning, to refer to some person, place, or thing. Last of all, a **symbol** is the most fundamental relevant expression used in discussing languages, which is a verbal or linguistic representation of something other than itself.

<sup>2</sup> This is subdivided into the **strong** and **weak (realistic)** version(s), which say, respectively, that there can be no possibility of evidence of not- $p$ , and there can be no evidence or reasons for thinking that not- $p$ .

though you *feel* otherwise. A classical case of self-deception. Other examples in which you're epistemically certain that *p* but psychologically you're *not* certain that *p* include the experience of optical illusions as well the common experience of airline pilots working on their instrument licenses. In the latter case, there are many occasion in which the pilot *feels* certain that gravity is pointing in one direction, but also certain that the instruments are telling the true story concerning the 'down' direction (which is elsewhere). This occurs commonly at night when an airline is banking and there's no visible horizon...one gets psychologically tricked into confusing the centrifugal force on the plane with the gravity force...the only way to avoid a crash is to *trust* the instruments, i.e. have epistemic certainty and override the [conflicting] psychological certainty.

3.) There are infinitely many prime numbers.

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
		X				

- It can't be a) since there is *nothing* intuitively obvious in this claim. (After all, one can always counter-claim that the set of prime numbers may be very large, i.e. have billions of members, but is nevertheless still finite...hence there exists, for example, a largest prime number.) It can't be a case of b) either, since whether or not one looks at apriori 'evidence' from mathematical premises or aposteriori empirical data, there is nothing to tell us that the above is true. So we need to *prove* the claim is true. Since there exists a proof (i.e. a deductively sound argument) for the above claim, it's epistemically certain.

4.) Healthy human beings are warm-blooded (in the literal sense of the term.)

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
						X

- I feel* I am warm-blooded. There is overwhelming medical and physiological evidence that healthy humans are warm-blooded. And it's also deductively certain since, by standard definition, a human is an instance of the general species 'mammal.'

5.) (In reference to 2) Your friends can't stand to see you so hurt and humiliated by your lyin' cheatin' spouse/lover/partner, and try to talk sense to you. But you dismiss it all as unfounded slander and gossip.

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
X						

- The mirror case of self-deception, as discussed in 2). Here one is *psychologically certain* that not-*p* (I.e. one’s significant other is *not* cheating) but this flies in the face of the overwhelming evidence against such a claim.

6.) You’re driving down a long, private driveway at your friends’ farm, and it’s very late and you’re very tired and you know (for a fact) you’re the only one driving on this road. Your eyelids are getting heavier and heavier, and with horror you suddenly find yourself in the middle of your friend’s cornfield, with two long trenches of squashed corn under tire tracks that end at the bottom of your tires. In your momentary disorientation you wonder how you got there. As you begin to assess your predicament you conclude you must have fallen asleep.

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
					X	

- Here you may momentarily or chronically be *psychologically uncertain*, yet you can deduce (validly) that you ran off the road, and there’s quite a bit of evidence indicating that you did.

7.) You’re experiencing an episode of “lucid dreaming,” (i.e. a dream state in which you’re aware that you’re dreaming.<sup>3</sup>)

a) only	b) only	c) only	a) & b)	a) & c)	b) & c)	a) & b) & c)
				X		

- In the case of lucid dreaming, you lack publicly available evidence that you’re indeed dreaming. Nevertheless you *know* you’re dreaming (psychological certainty.)

One may also devise certain tests within one dream. To ascertain one is dreaming (within a context) may involve setting up scenarios in the belief that one is *not* dreaming entails a contradiction. (For example: dreaming one is flipping a light switch and background light intensity doesn’t change.)

Now recall the basic philosophical skeptical<sup>4</sup> maneuver: “If it’s always possible that not-*p*, then it’s never certain that *p*.” What possible (philosophical) skeptical counter-arguments could be made against *p* in claims 1.) – 7.) above?

<sup>3</sup> Neglect skeptical dream counter-arguments here.

<sup>4</sup> Defn. (Odell’s Handout 2 “Gods, Goddesses, Skepticism,” p. 5) “No human could ever know [i.e., have justified true beliefs] about the existence of characteristics of anything of kind  $\Psi$ .”