

## On Epistemic Effects of Cartesian Skepticism

**Xisheng Wang**

Michigan State University

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### **ABSTRACT**

The doubt brought by the hypothesis of Cartesian skepticism is one of the most vital and difficult challenges in the field of philosophy. The reason why it is vital is that it challenges people's everyday knowledge claims about the external world. It is difficult to solve because the reasoning involved in Cartesian skepticism relies on some principles that we use in our daily life. In this paper, I will introduce three important philosophers, G.E. Moore, Robert Nozick, and Fred Dretske and their theories, which are believed by many people to have successfully answer Cartesian skepticism. Nevertheless, in my opinion, these theories, in fact, did not really entirely quell the doubts brought by the Cartesian skepticism. The objective of this article is to analyze the shortcomings of each theory in answering the doubts brought by Cartesian skepticism. Finally, I will elaborate on why Cartesian skepticism is unavoidable and unanswerable under the current conceptions of knowledge and I will offer some advice regarding what strategy we should choose in the future in order to solve the problem of Cartesian skepticism.

### **KEYWORDS**

Epistemology, Cartesian Skepticism, External World, Epistemic Closure Principle, Tracking Theory, Epistemic Operator, Relevant Alternative Theory, Infallibilism

## 1. INTRODUCTION

In our daily life, most people usually don't have much doubt about the propositions such as: "I know that I have two hands" or "I know that there is a green tree in front of me." For those people, to be precise, they don't question their "perceptual knowledge" or the veracity of their "perceptual experiences." In other words, they usually believe what they see and what they feel. However, most people also have had the experience of waking up from a dream in a heavy sweat early in the morning and only to realize that what they just "experienced" was only a vivid nightmare. This example clearly illustrates that people can have the exact experience of, say, a green tree in front of them in a dream just as they would experience it in waking life. Now, here is a problem. How do people really know something when they are claiming to know? Or how do they know that they are not just dreaming? This puzzle successfully leads us to today's topic.

The dreaming hypothesis mentioned above is one of the scenarios of Cartesian skepticism's argument, which is our topic today. Under the Cartesian extreme skeptical position, we seemingly don't have any knowledge about the external world since we cannot exclude the possibility that what we take to be veridical experience is just an elaborate dream. Such a skeptical argument is highly destructive because it challenges people's claims to know very ordinary things about their environment. In the book, *Critique of Pure Reason*, Kant exclaimed that: "It still remains a scandal to philosophy... that the existence of things outside of us... must be accepted merely on faith, and that, if anyone thinks good to doubt their existence, we are unable to counter his doubts by satisfactory proof" (Kant 1929, 34). For many philosophers, like Kant, the conclusion of the Cartesian skepticism is intolerable because we do KNOW that "I have two hands" and "there is a green tree in front of me" and many other perceptual beliefs. As a result, under such an atmosphere, anti-skeptical philosophers came to propose many theories in answer to the challenge of Cartesian skepticism. Some philosophers challenge the Cartesian skeptic by attempting to prove the existence of the external world. Other philosophers challenge the Cartesian skepticism by rejecting the principles relied on in their skeptical reasoning. While these philosophers' theories can seem persuasive, their arguments are not without problems. The objective of this paper is to show the deficiencies of several standard responses to Cartesian skepticism, and the philosophical consequences of these deficiencies. Finally, I will offer some

thoughts about why Cartesian skepticism is unavoidable and unanswerable under the current conceptions of knowledge, and what the strategy should we use in the future in order to solve the doubts brought by Cartesian skepticism.

## **2. CARTESIAN SKEPTICISM**

### 2.1. Descartes and his Cartesian Skeptical Methodology

René Descartes is one of the most important French philosophers in the 17<sup>th</sup> century. In his book, *Meditations on First Philosophy*, he thoroughly introduces what has come to be called “Cartesian skepticism” and the “method of doubt,” a form of skeptical reasoning that gives rise to it. After reading the Meditation I, “Concerning Those Things That Can Be Called into Doubt,” it’s not hard for us to notice that the purpose of meditation is to build an absolutely reliable foundation for knowledge system. To this end, Descartes believes that he must abandon all the opinions and views he held before and start from the ground up. In order to achieve this purpose, Descartes put himself in an extreme skeptical position and tries to raise various challenges<sup>1</sup> to his daily thoughts and beliefs. One of the challenges is the dreaming hypothesis as we learned above. If any belief could survive under such extreme skeptical conditions, this belief must be the foundation of the knowledge system. For Descartes, skepticism serves as a methodological tool to clear out the unreliable beliefs that we took for granted before. The skeptical argument proposed by Descartes is not a pure skepticism, because its purpose is not to doubt for the sake of doubt, but to establish a solid knowledge system. The difference in purpose makes him not a real skeptic. This idea is crucial because when we study other philosophers’ theories to challenge the Cartesian skepticism, we have to keep in mind that the rejection of Cartesian skepticism is not the only aim; we have to consider whether these philosophers’ theories violate the intention that Descartes purposes the Cartesian skepticism, which is putting thinkers into an extreme environment to establish a solid knowledge system.

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1. Other challenges include the Cartesian demon hypothesis. Under the Cartesian demon hypothesis, people are living in a world full of illusion created by an evil demon. These illusions can be perceptual, logical, even mathematical. I will mention this hypothesis later in this article.

2.2. G.E. Moore: "I have two hands!"

If people are dreaming, people might not have knowledge about the external world. This is because every sense of the "world" could be merely an illusion in the dream. This reminds us that if we can prove the existence of the external world, we can at least shake ourselves loose Cartesian skepticism. This is the exact strategy that Moore decides to use in his article, "Proof of an External World," where he attempts to prove the existence of the external world by showing that he knows that he has two hands<sup>2</sup>. This is how Moore's proof works:

PI) Here is one hand (making a gesture with left hand)

PII) Here is another hand (making a gesture with right hand)

C) The external world exists

The existence of the two hands intuitively proves that the outside world exists. Moore said confidently that the proof was unquestionable and completely rigorous because this proof meets the three conditions required for a proper proof: (1) the premise is different from the conclusion, (2) the premise is known, (3) the conclusion is derived from the premises.

Let's take a moment to consider each condition: (1) "the premise is different from the conclusion" is a very important precondition for a cogent argument, because if the conclusion is merely a restatement of a premise, then the proof commits the logical fallacy *petitio principii*, question begging. Moore has succeeded to avoid this. Moore also believes that his demonstration successfully shows (2), "the premise is known", because it's ridiculous for a person to say that "I don't know that there are two hands in front of me," when two hands are presented before him. Finally, (3) is also shown up in Moore's demonstration because the conclusion is indeed a logical consequence of the premises; in other words, the deduction is valid. If Moore has successfully proven that the external world exists, we must be living in a world without the evil demon. Therefore, the argument of Cartesian skepticism is false.

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2. Hands are somethings that exist independently of the mind, so they are parts of the external world.

2.3. René Descartes: "Are you sure?"

In my opinion, Moore's mistakes can be classified into two kinds: (1) misunderstanding the aim of raising Cartesian skepticism; and, (2) question begging.

First, as I mentioned in section 2.1., the reason why Descartes raises Cartesian skepticism is in order to exclude all possible wrong beliefs and seek the foundation of our knowledge system. The Cartesian skepticism is just a methodology rather than an aim. It's very obvious that, in Moore's demonstration, he does not put himself into an extreme skeptical position in the very first place. Perceptions are questionable under the extreme skeptical position. For instance, how do you know that you are not just dreaming that there are two hands in front of you? Therefore, Moore's demonstration violates the intention of Cartesian skeptical methodology and he is sneaking a doubtful belief, which is "he has two hands", into the field of basic knowledge.

Second, it is true that the premises in his demonstration are different from the conclusion. However, this does not mean that there is no question begging in his proof. This question can be seen in two viewpoints. First, he takes as a premise, a claim, that his audience, in this case, the skeptic would not grant— that here is a hand. For skeptic, maybe it's only an illusion-of-a-hand, or dream-hand, or the appearance-of-a-hand. So, Moore begs the question against the skeptic by assuming something that he needs to prove to the skeptic, namely that here is one hand. Second, "here is one hand" is a belief that needs to be justified by "the external world exists." In Moore's demonstration, Moore claims that there are two hands without justification. The important reason why he cannot offer the justification is that "the external world exists" is Moore planning to prove. Hence, Moore does make the fallacy of question begging during his demonstration.

Based on these two reasons, I suppose that Moore's proof does not really solve the issue brought by Cartesian skepticism; instead, he cleverly avoids the issue.

### 3. EPISTEMIC CLOSURE PRINCIPLE

#### 3.1. Cartesian Skeptical Syllogism<sup>3</sup>

Our beliefs about the external world come, directly or indirectly, through sensory experience. However, our sensory experience does not seem to be completely reliable. We all have experiences of illusion and hallucinations; even things that seem clear and obvious can, at times, be doubted. These ordinary cases of sensory illusion can make it seem as though it's entirely possible that we are just dreaming or living in a Cartesian demon world. Hilary Putnam in his 1981 book, *Reason, Truth, and History*, proposed the famous Brain in a Vat<sup>4</sup> (BIV) skeptical scenario. The BIV hypothesis proposes that an evil scientist removes someone, S's, brain and puts it into a vat of nutritious liquid and uses a computer to stimulate the brain to produce sensory experiences qualitatively indistinguishable from those of our ordinary experience. But in fact, everything S feels is just a series of computer signals. The main point of Putnam's skeptical theory is that if we do not know that we are not a BIV, or we cannot rule out the hypothesis, H, that we are, then we don't have the knowledge of the external world. If we simplify the skeptical argument, it can be formulated as follows syllogism:

P1) S doesn't know  $\sim H$ <sup>5</sup>

P2) If S knows P<sup>6</sup>, then S knows  $\sim H$

C) Therefore, S doesn't know P

If we put Putnam's skeptical hypothesis into the syllogism, it can be expressed as follows:

P1) We don't know we are not BIV

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3. Here, when I say Cartesian skeptical "syllogism", I do not really mean the syllogism by logical definition. Cartesian skeptical syllogism is a form a Cartesian skeptical argument that made in three sentences.
  4. Interestingly, Putnam himself, just like Descartes, wants to refuse the skepticism, but his theory also accidentally provides a good argument for skepticism
  5. "H" represents the skeptical hypothesis. " $\sim$ " means "negate" or "not"
  6. "P" represents the ordinary propositions

P2) If we know we are seated, we know we are not BIV

C) Therefore, we don't know we are seated

If we comprehensively understand the skeptical syllogism, this means that we successfully understand the working principle of the Cartesian skepticism. This reason makes the Cartesian skeptical syllogism play a very important role in the rejection of Cartesian skepticism. In order to reject the skepticism, we can start by considering two approaches. The first approach attempts to prove that the skeptical syllogism is not valid, meaning that: the conclusion is not a consequence of its premises. The second approach seeks to show that one or other of the syllogism's premises is false, so that the argument is unsound.

The first approach seems to be a nonstarter, because the skeptical syllogism is an instance of *modus tollens*, a deductively valid form of argument. For this reason, we have to choose the second approach.

### 3.2. Closure Principle

Since the second approach is the only path that we can choose, now let's start to look at whether the validities (P2) are questionable<sup>7</sup>. If we can question either part of (P2) successfully, including the logic between them, then we can question the validity of (P2); further, we can question the validity of the skeptical syllogism. The validity of (P2) is *de facto* based on a very important principle, which is called the epistemic closure principle (CP thereafter). The ordinary applications of closure allow us to infer what we know to be deductive consequences from what we know (Godden 2017, 5). The basic idea of CP is that if S knows that p and knows that p entails q, then S knows that q. It can be formulated as follows:

$$[K(s,p) \ \& \ K(s,p \rightarrow q)] \rightarrow K(s,q)$$

(P2) is based on the CP because "if we don't know we are not BIV" entails that "we don't know we are seated" because it's possible that we are BIV and "seating" is simply an illusion of our mind. As you may have guessed, if we can reject the CP successfully, for example by proving that "we don't know that we are not BIV",

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7. Many philosophers believe that Moore is rejecting the Cartesian skepticism by rejecting the (P1). This is because Moore denies that people do not have the ability to know that they are not BIV.

## compos mentis

but "we still know that we are seated" is true, then (P2) can be challenged by the reasoning of contradiction. Since (P2) is questionable, the validity of skeptical syllogism, as well as Cartesian skepticism, can also be rejected meanwhile.

If the properties of CP are just as I interpreted above, it is not much difficulty for most people to reject CP. Here is one of the counterexamples that many people probably think of:

p1) I know that I am reading

p2) I know that I am reading entails that  $1+1=2$

c) I know that the  $1+1=2$

The reason why CP can be rejected so easily, in this case, is that there is another significant property of a valid CP that is missing. To be a effective CP, there must be a consequent relationship between "p" and "q." Namely, "p" and "q" cannot be any random proposition. (P2) of skeptical syllogism includes a valid CP because there is a subsequent relationship between the ordinary proposition and skeptical hypothesis. Thus, the above "CP" I give is not a valid CP because there is no consequent relationship between "reading" and " $1+1=2$ ."

American philosophers Robert Nozick and Fred Dretske, both reject the Cartesian skepticism by rejecting the CP of (P2). Besides, there is one important point that we have to pay attention to. Nozick and Dretske do not reject the (P2) in its initial format but reject the (P2) in its form of Modus Tollens (contrapositive reasoning). It can be formulated as follows:

P2) If S doesn't know  $\sim H$ , then S doesn't know P

P2) If we don't know we are not BIV, then we don't know we are seated

The reason why Nozick and Dretske transform (P2) from its initial format into the Modus Tollens is in order to make a better connection between (P1) and (P2). If we try to reject the initial format of (P2) of the skeptical syllogism, it's very hard for us, logically, to understand how it works. This means that in the rest of the paper, when I mention the rejection of (P2), I mean the rejection of transformative (P2).



### 3.3. Robert Nozick and Tracking Theory

(i) If I am seated, then I know that I am not deceived by the Cartesian demon  
(ii) Conversely, if I am unable to know that I am not deceived by the Cartesian demon, then I am unable to know that I am seated (Pritchard 2008, 7). This is an analysis given by Duncan Pritchard in his paper, "Sensitivity, Safety, and Anti-luck Epistemology." This analysis gives us a closer look at what role the word "know," plays in the (P2) of skeptical syllogism. If people have a different definition for "knowing" or "knowledge;" then they can also have a different version of CP. Since 1963 Edmund Gettier challenged the traditional definition of knowledge, JTB theory, there was not a unified definition of knowledge (Gettier 1963, 1). This gives many philosophers, such as Nozick, a hope to reject the CP by offering their own definition of knowledge. The definition of knowledge by Nozick is as follows:

- (1) S has true belief on Q
- (2) If Q weren't true, S wouldn't believe it (Sensitivity-based Requirement)
- (3) If Q were true, S would believe it (Adherence Requirement)

Nozick's definition of knowledge is also known as tracking theory. In the tracking theory, Nozick makes use of the subjunctive conditional instead of the material conditional.

As I said in section 3.2., Nozick rejects the Epistemic Closure Principle by rejecting the (P2) of skeptical syllogism. The first step that Nozick plans to do is to prove that the first part, "S doesn't know ~H", of (P2) is true. "S knows ~H" is false which means that "S doesn't know ~H" is true. Hence, Nozick only needs to prove that "S knows ~H" is false. The reason that "S knows ~H" is false is that it does not satisfy the sensitivity-based requirement of knowledge. If "S knows ~H" is true, it has to satisfy the sensitivity-based requirement that if "~H" is not true, then "S would not believe ~H" is also true. Please imagine that there are multiple parallel worlds that are existing around the world that we are currently living in. A world that is farther away from the world we lived is a world with more differences with ours. A world that is closer to the world we lived in means that there are more similarities between that world and the world we lived in. In a close possible

world<sup>8</sup> that “~H” is not true, it is a world that “H” is true. “H” is a skeptical hypothesis, such as BIV or Cartesian demon. In other words, in a world that “H” is true means that there is a Cartesian demon in this world. However, in this world, S would still believe that “~H” is true even though “H” is true. Since the sensitive-based requirement does not be satisfied (S still believes that “~H” is true when “H” is true), “S doesn’t know ~H” is true. Thus, the first part of (P2) is true.

The second step that Nozick plans to do is to prove the second part of (P2) that is incorrect, which means that “S doesn’t know that ~H, BUT S does know P.” Please consider the following example:

- (i) There is a bunch of fire in front of me, and I believe that there is a bunch of fire in front of me
- (ii) If there is not a bunch of fire in front of me, I wouldn’t believe it
- (iii) If there is a bunch of fire in front of me, I would believe it (the location of the fire is possibly different in a close possible world)

These three conditions, (i) to (iii), are sufficient conditions for the tracking theory, (1) to (3), by Nozick. (i) satisfies condition (1); this is not hard to understand. (ii) satisfies the sensitivity-based requirement because in a close possible world, if there is not a bunch of fire in front of me, I would not believe it (it would be absurd to say that there is a bunch of fire in front of me, if there is no fire). (iii) also satisfies the adherence requirement. In a close possible world, there is a bunch of fire in front of me, but the location of the fire is slightly different than the location in our world. I would believe that there is a bunch of fire in front of me in that world because I see it. Therefore, the second part of (P2) is false, which means that “S does know that P” is true. The acceptance of the first part and the rejection of the second part of (P2) express that CP is incorrect. Therefore, (P2) is incorrect. Since one of the premises of the skeptical syllogism is incorrect, the conclusion of skeptical syllogism should be also incorrect. Finally, we don’t have to accept the argument of Cartesian skepticism.

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8. In metaphysical and epistemological talk, a close possible world is intended to be a world that is particularly similar to the present one, with some details (especially the truth of “H”) changed.

### 3.4. The Issues of Tracking Theory

Since the Cartesian skeptical argument has been challenged by the tracking theory, there are at least two issues that have emerged: (1) Whether Nozick's tracking theory can be precisely applied to every situation in our daily life? (2) Whether Nozick's tracking theory is a really good definition of knowledge without making any contradiction? For the answer to these two questions, my answer is "NO."

First, Nozick's tracking theory can conduct many contradictive phenomena in our daily life. In other words, this theory cannot be successfully applied to every aspect of our lives. Please compare the following two barn county style cases:

(I) Suppose there is a barn county in which many barn-like structures are scattered. Although they look almost the same, only one of them is a real barn, and the others are fake. Now suppose S drives through this county and just sees the real barn, so S believes there is a barn in the county. S's belief is true, that is, it meets the first requirement of Nozick's tracking theory. However, it violates the sensitivity-based requirement of tracking theory, because in a close possible world, if there is no a real barn, S would still believe that there is a real barn because of the existence of other fake barns. Therefore, in the case (I), S does not know that there is a barn in the field.

(II) Suppose the situation in the barn county is roughly the same as above. The only difference is that the real barn in the county is red and the other fake barns are other colors. Now suppose S drives through the county and S just sees the real red barn, so S believes that there is a red barn in the county. This time, S's belief is true (satisfies the first requirement) but it also meets the sensitivity-based requirement and the adherence requirement of Nozick's tracking theory: in a close possible world, if there is not a red barn in the county (the true barn does not exist), the existence of other fake barns would still make S believe that there are some other barns in the county, but S would not believe that there is a red barn in the county, because the other fake barns were not red. Of course, S also meets the third requirement of the definition: if the location of the red barn in the county changes slightly in a close possible world, S will still believe that there is a red barn in the county.

What is really confusing in these cases is that when you combine these two cases together, they are contradicting. S does not know that there is a barn in the

county, because of the reason shown in case (I); however, meanwhile, S does know that there is a red barn in the county because of the reason shown in case (II). How can a person know that there is a red barn without knowing that there is a barn? This is one of the counterexamples that the tracking theory leads us into an anti-perceptual result. (Kripke 2011, 162-224)

The last, in my perspective, the deadliest flaw of the tracking theory is that we don't know the precise definition of the "close possible world". As I explained in 3.3., the concept of "close possible world" plays a very important role in Nozick's tracking theory. Without understanding this concept, it's impossible for an epistemologist to judge whether someone knows something or does not know something. However, the concept of "close possible world" is very absurd. Nozick does not give us a clear-cut definition of the close possible world. We don't know the boundary between each world and we also don't know how close a parallel world should be to be a close possible world. For instance, in my opinion, between a world with the Cartesian demon and in a world without the Cartesian demon, these two worlds cannot be close possible worlds to each other. Rather, these two worlds are far away from each other because in the world with the Cartesian demon, the external world does not exist, but in the world without the Cartesian demon, the external world does exist. In my opinion, these two worlds should not be close enough to be possible worlds because even though the information that people get in both worlds is the same, but the essence of everything is completely different. In short, if different people may have a different understanding of "close possible world", they will get different outcomes about whether someone knows something. For a definition of knowledge, this instability is fatal.

### 3.5. Fred Dretske and His Theories of Knowledge

#### 3.5.1. EPISTEMIC OPERATOR

Dretske questions CP by questioning the relationship between the two parts of (P2). In the first step, Dretske challenges the transmissibility of "knowing". In Dretske's point of view, CP can only be applied to a fully penetrating operator. An operator, O, is fully penetrating just in case if P entails Q, then O(P) entails O(Q). These operators are including "it is true that," "it is a fact that," "it's necessary that" and "it is possible that" ... (Dretske 1970, 1007). A fully penetrating operator can penetrate to every necessary consequence of P to Q. Semipenetrating operators,

on the other hand, cannot penetrate all its implications to its "receiver" ("Q"). Here is an example of semipenetrating operator:

- (R)     (p1)     S regrets P  
           (p2)     P entails Q  
           (c)     Therefore, S regrets Q

or with an example, as follows:

- (R)     (p1)     S regrets drinking a bottle of tequila  
           (p2)     Drinking a bottle of tequila entails drinking something  
           (c)     Therefore, S regrets drinking something

(Godden 2017, 8) "Regretting" is a semipenetrating operator because "regretting" cannot penetrate all receiver's implications to its "regret" receiver. In this case, S regrets that he was drinking a bottle of tequila; however, this is not necessarily expressing that he regrets that he was drinking something. In Dretske's words, these implications that cannot be fully penetrated are called heavyweight implications. Dretske followed by uttering that the epistemic operators, such as "knowing", "believing," are also semipenetrating operators. Here is an example:

- (K)     (P①) S knows British PM has COVID-19  
           (P②) British PM has COVID-19 entails that Boris Johnson has COVID-19  
           (C) Therefore, S knows Boris Johnson has COVID-19

Does S really know Boris Johnson has COVID-19 in this case? The answer is absolutely "NO"! S only know (C) if S know another premise, (P③), that Boris Johnson is British PM, because that would give S a reason for believing (C). It's only by S's knowing (C) that there is any plausibility to the claim that S's knowing (P③) logically follows from S's knowing that (P①). In this case, the definition for a penetrating operator does not give me that S knows that (P①) entails (P③). Rather, it only gives me that (P①) does, in fact, entail (P③). This case gives us

a good reason for thinking that "know" is not fully penetrating. Thus, Dretske advocates that there is no such implications about "P", and all implications can be penetrated into a sentence entailed by "P," because some of implications are heavyweight implications. There is a class of heavyweight implication that is highly valued, which is the Modus Tollens of skeptical hypothesis, "~H." Dretske admits that no matter whether by empirical or non-empirical approaches, we cannot know if the Cartesian demon exists. Nevertheless, the ignorance of "~H" does not make us ignorant of "P", which implies "~H."

### 3.5.2. RELEVANT ALTERNATIVE THEORY

Just like Nozick, Dretske also offers a definition of knowledge. According to Dretske's relevant alternative theory, S knows that P only when:

(P1) P is true

(P2) S believes P

(P3) S can rule out all relevant alternatives to P

According to Cartesian skepticism, the knower has to rule out all alternatives of P in order to have knowledge of P.<sup>9</sup> However, under Dretske's theory, S knows that P does not require that S has ruled out all alternatives of P; it only requires that S has excluded all relevant alternatives of P. Now, there are two questions that need be clarified: (a) What makes an alternative to be relevant alternatives? And (b) How is "ruling out" to be understood? What does it take to "rule out" an alternative?

For question (a), Dretske uses the Gadwall case to explain the relevant alternative. Suppose a birdwatcher sees a bird that looks like a Gadwall on the water. Based on this visual evidence, he believes that what he sees is a Gadwall. Suppose further that this bird is indeed a Gadwall. What this birdwatcher does not know is that the Siberian grebe is no different from Gadwall, except that their belly hair is different in color. The former has red belly hair and the latter does not. Only when the Siberian grebe is flying, are people able to see its red belly hair and distinguish it from Gadwall accordingly. The question now is that does this birdwatcher really know that he is seeing a Gadwall? (Dretske 1981, 368-

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9. Please remember what I have mentioned in 2.1., for a skeptic, as long as a belief is questionable, such a belief must be treated as wrong. This means that the knower has to rule out all alternatives of propositions.

369) According to Dretske's interpretation of relevant alternatives theory, whether Siberian grebe is a related alternative for Gadwall, it can depend on two factors: (i) Whether it is possible that a Siberian grebe appears in that area; (ii) What is the context, the physical or the intellectual one, that the birdwatcher is standing. For factor (i), if Siberian grebes are appearing in that area (by migrating, smuggling by hunters or by something else), then Siberian grebe is a relevant alternative for Gadwall; otherwise, it is not. For factor (ii), whether Siberian grebes are relevant alternative for Gadwall, it depends on the birdwatcher's context. If birdwatcher is researching in a zoological topic, he might know that is a Gadwall; however, if he is researching in a philosophical topic, he might not know that there is a Gadwall because how does he know that he is not just seeing an illusion made by the Cartesian evil demon?

For question (b), in Dretske's view, in order to exclude an alternative, it requires a conclusive reason (CR thereafter).<sup>10</sup> There is a similar case given by Dretske in another paper, *Epistemic Operators*. For a normal zoo, the relevant alternative of the zebras includes mule, elephant, tiger, giraffe... but it does not include mule painted to look like a zebra. If S knows that he is seeing a zebra, he must have CR to exclude that he is not seeing a mule, elephant, tiger, giraffe and all other relevant animals; however, he does not have to have CR to exclude that he is seeing a cleverly-disguised mule. For this reason, it is possible for S to know that he is seeing a zebra without knowing that he is not seeing a cleverly-disguised mule.

In Dretske's point of view, the relevant alternative of "S has two hands" includes, such as, "S is disabled since birth" or "S has experienced a car accident and lost two hands," but "S is a handless BIV" is not included in the relevant alternatives. If S knows that "S has two hands", then S must have CR to exclude its relevant alternative, but S doesn't necessarily have CR to exclude irrelevant alternatives, such as "S is BIV." For this reason, the second part of (P2) cannot be necessarily entailed from the first part of (P2), which means CP is invalid. (P2) of the skeptical syllogism is invalid that leads to the skeptical syllogism which is also invalid. Hence, the argument of Cartesian skepticism is false.

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10. This is the definition of conclusive reason given by Dretske:

(1) S knows that P and he knows this on the basis (simply) of R entails

(2) R would not be the case unless P was the case

### 3.6. The Issues of Dretske's Theories of Knowledge

There are two questions that need to be clarified by the relevant alternative theory. They are (a) What makes an alternative to be relevant alternatives? And (b) How is "ruling out" to be understood? What does it take to "rule out" an alternative? In the last section, Dretske detailly answers these two questions. However, here are two issues that also based on these two questions.

First, under what conditions (or contexts) an alternative is a relevant alternative. Please consider the following question: Assuming Judy and Trudy are twins, and Judy lives in the U.S. and Trudy lives in Europe. They are the same regardless of their looks, interests, style of clothing, etc.<sup>11</sup>. Suppose Judy has a very good neighbor Sam and they are familiar with each other, but Sam does not know the existence of Trudy. Under what circumstances we would say that Sam knows that person in front of him is Judy? (Goldman 1976, 778) Now please consider the following three situations:

(I) When we first time look at this question, our intuition tells us that Sam does not know Judy because when Judy and Trudy are standing together, Sam cannot distinguish which person is Judy and which person is Trudy. In this context, Trudy is a relevant alternative of Judy. Therefore, Sam does not know Judy.

(II) Let's further assume that because of Judy and Trudy's family affairs, they cannot leave their place of residence. Under this context, we can intuitively think that Sam should know Judy, because Trudy will never come to the U.S., and Sam can properly identify the person who lives next to his house. Thus, Trudy is no longer a relevant alternative of Judy as Sam knows Judy.

(III) However, if Sam one day travels to Europe, and he runs into Trudy. He probably will say that "Hi Judy, I thought you were in the U.S.!" Obviously, if Sam is capable of traveling to Europe, then Trudy is a relevant alternative of Judy again. Sam does not really know Judy in this case.

A proposition is irrelevant to a certain belief in one case, but it can be relevant to the same belief in another case. Unfortunately, the criteria for determining whether an alternative is a relevant alternative or not is inconclusive. If the factors

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11. Using the words that Dretske gives to us in the speech, "What we see", in the University of California Berkeley, the properties of Judy and Trudy are the same. <https://alchetron.com/Fred-Dretske> 13m:05s



that determine relevance are unstable, it also makes people's knowledge relatively unstable.

Second, CR does not seem to be an appropriate condition for the exclusion of alternatives. Consider the following situations: assuming that there are two nasopharyngeal swabs, A and B, for testing COVID-19. If the swab A shows negative, it means that the tested patient is not infected by COVID-19. However, if the swab B shows negative, it means that the patient is not be infected by COVID-19, or it is possible that the tested patient is infected but the concentration of coronavirus is not high enough to make swab B to show positive (this is also called false negative or weakly positive). In this case, S only knows the existence of swab A, but does not know the existence of swab B and the appearances of swab A and swab B are identical. Now let's further assume that a tested patient is not infected by COVID-19, and S wants to detect whether he is infected. In the test center, the test table is filled with nasopharyngeal swabs. S believes they are all swab A. However, in fact, most of them are swab B, and only one is swab A. Luckily, S just takes swab A to test patient and observes that the swab shows negative. Since S believes that he is using the swab A (which is also true), he then believes that the patient is not infected, because the swab shows negative. According to Dretske's definition of CR, S does have CR to rule out that the patient is infected because:

- (1) S knows that the patient is infected and S knows this on the basis of swab A shows positive
- (2) Swab A will not show positive unless the patient is infected

Since above situation satisfies Dretske's definition of CR, according to Dretske, S knows that the patient is not infected. However, this conclusion is not indisputable, because S's testing includes quite a lot of luck. S does not know that there is another swab, swab B, which can show negative, but the patient is, in fact, infected. This case seems to indicate that the CR for showing negative is not enough to exclude that the patient is not infected by COVID-19. Therefore, CR cannot help S to rule out all relevant alternative of P and the curse of Cartesian skepticism cannot be broken by Dretske's relevant alternative theory.

#### **4. ABSOLUTE INFALLIBILISM LEADS TO CARTESIAN SKEPTICISM**

Either from proving the existence of the external world or rejecting the Epistemic Closure Principle; in my opinion, neither of these approaches is feasible as challenges the argument of Cartesian skepticism. It is impossible to prove the existence of the external world through our sensory system because the approach of senses of the external world is exactly the object the skeptics have questioned. It's also problematic and unnecessary to object the Cartesian skepticism by rejecting the CP, because CP is one of the important ways for us to obtain knowledge. The collapse of CP may cause chaos in our daily life. At this moment, I begin to wonder if there is something wrong with our strategy of rejecting skepticism.

Descartes claimed that the only things that we should count as knowledge were things, we could be certain about. This advocacy sometimes is also called infallibilism. Infallibilist's view of knowledge holds that knowledge has objectivity, certainty, justification, infallibility, incorrigibility, and indubitability. In Robert Audi's words: "If you know, you can't go wrong." (Audi 2004, 300) That is, knowledge must be a certain belief.

In my opinion, however, the threshold for a belief to qualify as knowledge is too high. In an influential article, "A Defense of Skepticism," published in 1971, Peter Unger raises a similar idea. Unger believes that in terms related to cognition, "certain" is an absolute term, which is a concept without a degree of difference. "Confident," "doubtful," and "uncertain," on the other hand, are relative terms, which with a degree of difference. Here is an example. Unger argues that "flat" is an absolute term. We cannot use the comparative to describe flat like saying "A is flatter than B." In everyday language, when we say, "this plane is flatter than that plane," we are actually expressing that "this plane is closer to flatness than that plane." In Unger's perspective, "flatness" is an absolute concept, it can only be approached, but never be reached. We thought we could find an absolutely flat plane, but every plane is bumpy when it is viewed under a microscope. Although we may not require such strictness for practical purposes, in the study of epistemology we must ensure that the statements made are not false.

Since traditional knowledge definition requires knowledge is something absolutely certain, I believe that knowledge is something not accessible under such a definition. Therefore, Cartesian skepticism is unbreakable without abandoning

infallibilism. For the queries about how should abandon infallibilism and what's the substituted definition for knowledge, they are the topic for another paper.

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