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威廉森論斷言

Williamson on Assertion

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中文摘要：

本文的目的是要借威廉森(Timothy Williamson)的知識論來論證斷言的知識規則，即是人們必須：在知道 *p* 時，才斷言 *p*。假定人們是可以通過斷言溝通，那麼人們便可以通過斷言溝通知識。這樣，威廉森的知識論便說明了人們可以通過斷言溝通知識；從而回應了懷疑論者的質疑：人們是否可以溝通知識。

Abstract

The main thesis of this paper is to show that *one is warranted to assert p if and only if one knows p*. I will apply Timothy Williamson's Knowledge First Epistemology to argue for this thesis. Because human beings do communicate with each others by assertions, if this thesis holds then human beings communicate knowledge *by assertions*. In this way, Williamson's Knowledge First Epistemology replies to the sceptical challenge which doubts knowledge is able to be communicated.

Williamson proposed the notion of *case* in order to characterize a situation wherein the condition that one knows *p* obtains. In other words, one knows *p* if and only if one is in a case wherein the condition that one knows *p* obtains. Since one is warranted to assert *p* if and only if one knows *p*, one is warranted to assert *p* if and only if one is in a case wherein that the condition that one knows *p* obtains.

Incidentally, one must assert *p* only if one has suitable evidence, so that *one is warranted to assert p if and only if one has suitable evidence*. Since one is warranted to assert *p* if and only if one is in a case wherein the condition that one knows *p* obtains, one has evidence to assert *p* if and only if one is in a case wherein the condition that one knows *p* obtains. This leads to the consequence that one's evidence is one's knowledge. In this thesis, I will demonstrate Williamson's argument for the thesis that one's evidence is one's knowledge.

Which case one is in determine one's knowledge, evidence, and assertibility. This suggests that a class of cases wherein the condition that one knows *p* obtains is a model of one's knowledge, evidence, and assertibility. In this thesis, I will indicate that Williamson provided such a elegant model for one's knowledge, evidence, and assertibility. In this model, we only need to assume that there is a class of cases wherein the condition that one knows *p* obtains.

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Introduction

If knowledge is able to be communicated, how? Intuitively, assertion is the suitable media to communicate knowledge. If this is true, then the following rule should hold: one must: assert *p* only if one knows *p*. In *Knowledge and Its Limits*[1] (Williamson, 2000), Timothy Williamson argues that this rule holds. If Williamson successfully argues for this rule, then knowledge is able to be communicated *by assertion*. In this thesis, I intend to illuminate Williamson's argument for the this rule.

In this thesis, I intend to complete two tasks. Firstly, as I have mentioned, I will demonstrate Williamson's argument for the thesis that one must: assert *p* only if one knows *p* (I refer to this thesis as Knowledge Rule of Assertion). Secondly, I will indicate that Williamson shows that For every model M, if M is a model for knowledge, it is also a model for one's evidence and assertibility of *p*. In the demonstrations in succeeding chapters, the reader will see that Williamson's argument for the knowledge rule of assertion thesis involves a serial of theses. These theses entail the following three propositions.

(a) for every case α, one knows *p* in α if and only if *p* is assertible in α.

(b) for every case α, one knows *p* in α if and only if *p* is included in one's evidence in α.

(c) for every case α, *p* is included in one's evidence in α if and only if *p* is assertible in α.

Therefore, if we admit that there are some cases wherein one knows *p*, then whenever one knows *p* in a case (α), one's evidence includes *p* in α and *p* is assertible in α. In this way, Williamson provides an united model for knowledge, evidence, and assertibility.

To illustrate Williamson's argument for the thesis Knowledge Rule of Assertion, I need to demonstrate his arguments for several other theses. In the argument for the thesis Knowledge Rule

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[1] *Knowledge and Its Limits*, Timothy Williamson, 2000, Oxford University Press.

of Assertion, Williamson presupposes the thesis that one's evidence is one's knowledge (I refer to this thesis as E = K), which needs an argument as much as the thesis Knowledge Rule of Assertion. In the argument for the E = K thesis, Williamson again presupposes further thesis which needs an argument as much as the E = K thesis. This pattern keeps recurring, until Williamson shows his argument for the thesis that knowing is a mental state, wherein he does not presuppose any further thesis. To demonstrate Williamson's argument for the thesis Knowledge Rule of Assertion, I need to indicate that each presupposition is well grounded.

To make my first task easier, in the following section, I will show that seven theses are employed in the argument for the thesis Knowledge Rule of Assertion. Also, I will sketch the role of each thesis playing in the argument. This sketch will make the illustrations in forthcoming chapters more accessible to the reader.

Williamson's main theses and presuppositions

In the argument for the knowledge rule of assertion thesis, Williamson does not *directly* argue for the knowledge rule of assertion thesis, but takes a detour showing that

(a) one is warranted to assert *p* only if one's evidence includes *p*.

If one's evidence is one's knowledge, then (a) is good enough to show that one must: assert *p* only if one knows *p* holds, i.e., the thesis Knowledge Rule of Assertion holds. Thus by the presupposition

(i) one's evidence is one's knowledge, i.e., the E = K thesis,

Williamson indicates that the thesis Knowledge Rule of Assertion holds. However, the presupposition (i) needs an argument as much as the thesis Knowledge Rule of Assertion.

For the argument for the thesis E = K, Williamson shows that the following three propositions hold.

(b) all evidence is propositional;

(c) all evidence is knowledge;

(d) all knowledge is evidence.

Because (b), (c), and (d) entail the thesis E = K, showing that these propositions hold is just a demonstration the thesis E = K holds. I will show Williamson's argument for these three propositions. In both of arguments for (b) and (c), Williamson appeals to a fact about evidence, i.e., evidence should provide reason for one's belief. In the argument for (d), however, Williamson applies both the anti-luminosity of evidence and the anti-KK principle theses.

(ii) there is a *case* wherein the condition that one knows *p* obtains but one does *not* know that the condition obtains, i.e., the thesis Anti-KK Principle; and

(iii) there is a *case* wherein one's evidence has *p* but one does *not* know that one's evidence has *p*, i.e., the thesis Anti-Luminosity of Evidence thesis.

Both the thesis Anti-Luminosity of Evidence and the thesis Anti-KK Principle involve a technical term, *case*. At this point, the reader can just take it as a possible situation which contains a state of an agent and a state of the external world.

To see the roles the anti-luminosity of evidence and the anti-KK principle theses playing in the argument for (d), I need to indicate that the thesis Anti-KK Principle entails that very little of what we know is indubitable. (Williamson, 2000, p.205) Very little of what we know is indubitable, simple because, by the thesis Anti-KK Principle, there is a case wherein one knows *p* but one does not know that one knows *p*, so that one might have doubt whether one knows *p* when one knows *p*. If E = K holds, then most of one's evidence is also dubitable. One might feel uneasy to this result. Nevertheless, the thesis Anti-Luminosity of Evidence indicates that there is a case wherein one's evidence has *p* but one does not know that one's evidence has *p*. Therefore, one's evidence is also dubitable. By the thesis Anti-Luminosity of Evidence, Williamson fences off this putative challenge. Nevertheless, Williamson needs to provide argument for both thesis Anti-Luminosity of Evidence and thesis Anti-KK Principle.

In both the arguments for anti-KK principle and anti-luminosity of evidence theses, Williamson presupposes that

(iv) one knows *p* in a case only if *p* is true in every similar case, i.e., the thesis Safety Requirement of Knowledge holds.

The following proposition is the backbone of the argument for the anti-luminosity of evidence thesis.

(e) It is consistent with what one knows in case α_i that one is in case α_{i-1}.

(e) is just a special case of the thesis Safety Requirement of Knowledge. With the thesis Safety Requirement of Knowledge thesis in hands, the proposition (e) obviously holds. Williamson legitimately claims (e) simply because he presupposes the thesis Safety Requirement of Knowledge holds. Incidentally, for the thesis Anti-KK Principle, the following proposition is a crucial premise.

(f) one knows that one knows *p* in a case only if one knows *p* in every similar case.

(f) is also an application of the thesis Safety Requirement of Knowledge. In the argument for the thesis Anti-KK Principle, Williamson legitimately claims that (f) holds, because he already presupposed the thesis Safety Requirement of Knowledge holds. Again, Williamson needs to provide argument for the thesis Safety Requirement of Knowledge.

Now, we talk about the presupposition in the argument for the thesis Safety Requirement of Knowledge thesis. In the argument, Williamson presupposes the following thesis holds.

(v) the contributions offered from the physical state of an agent (internal state) and the physical state of the external world (external state) cannot be treated separately, so that *a case* is called for to characterize these contribution, where a *case* is a possible combination of an internal state and an external state, i.e., the thesis Primeness.

By the thesis Primeness, the obtaining of the the condition that one knows *p* hinges on the case which one is in. Observe the fact that one knows *p* entails one reliably believes *p*. Since the obtaining of the condition that one knows *p* hinges on the case which one is in, the case wherein

one knows *p* should be able to explain the entailment relationship among the state of one knowing *p* and the state of one reliably believing *p*. By these consideration, Williamson proposes the thesis Safety Requirement of Knowledge to explain this entailment relationship. By this thesis, *p* is true in every case similar to the case wherein one knows *p*, so that one reliably believes *p* in the case wherein one knows *p*. Also, one reliably believes *p because* one is in *the case* wherein one knows *p*. The thesis Safety Requirement of Knowledge explains the entailment relationship among the state of one knowing *p* and the state of one reliably believing *p by the case itself*. Nevertheless, in the argument for the thesis Safety Requirement of Knowledge, Williamson presuppose that the obtaining of the condition that one knows *p* hinges on the case which one is in, which is a consequence of the thesis Primeness. This time, he needs to provide an argument for the thesis Primeness.

In the argument for the thesis primeness, Williamson presupposes the following thesis.

(g) both the physical state of an agent (internal state) and the physical state of the external world (external state) contribute to the *mental* state of one knowing *p* (The thesis Broadness).

Traditionally, philosophers (say, C.D. Broad) hold that *mental state* supervenes on one's internal state and *only* on one's internal state. This traditional picture of a mental state expels any external state. However, the mental state of one knowing *p entails* that *p* is true. *p* may concern with external state, say, *p* is that snow is white. For Williamson, there is a mental state receives contributions offered from an internal state and an external state. *Knowing* is precisely such a mental state. So that there is mental state entails its propositional content. Williamson calls this mental state *Factive mental state*. In the argument for the thesis Primeness, Williamson presupposes the thesis that

(vi) Knowing is a (factive) mental state.

Obviously, Williamson needs to provide an argument for the thesis that knowing is a mental state.

In the argument for the thesis knowing is a mental state, Williamson does *not* presuppose any further thesis holds. He employs a heuristic argument for this thesis to fences off all putative challenges.

I left an important thesis behind, i.e., the thesis Anti-Luminosity which claims that there is a case wherein the condition of a mental state (say, feeling cold) obtains but one does not know that the condition obtains. In the argument for this thesis, Williamson also presupposes the thesis Safety Requirement of Knowledge. This argument relies on the following premise.

(h) one knows that the condition one feels cold obtains in a case only if the condition obtains in every similar case.

(h) is again just a application of the thesis Safety Requirement of Knowledge. The thesis Anti-Luminosity demonstrates that we have *no* cognitive home wherein everything is transparent. Even some *intimate* mental states such as feeling cold is not transparent, since the condition that one feels cold is not luminous. The anti-luminosity thesis strengthens the anti-KK principle and the anti-luminosity of evidence theses, since we do *not* have cognitive home.

In this section, I indicates that the argument for the thesis Knowledge Rule of assertion relies on seven theses. They are

(1) knowledge is a mental state (KMS);

(2) the condition one knows *p* is prime (the primeness thesis);

(3) the safety requirement of knowledge;

(4) condition of mental state is not luminous (the anti-luminosity thesis);

(5) the condition one knows *p* is not luminous (the anti-KK principle thesis);

(6) one's evidence is not luminous (the anti-Luminosity of evidence);

(7) one's evidence is one's knowledge (E = K).

I also have sketched the role each presupposition plays. The details with be filled in the succeeding chapters. Nevertheless, by this sketch, I think the connections between these theses is clearer.

Plan

In the previous section, I showed that the argument for the thesis Knowledge Rule of Assertion relies on seven theses. By the thesis that knowledge is a mental state, Williamson argued for the thesis Primeness; by the thesis Primeness, he argued for the the thesis Safety Requirement of Knowledge; by the thesis Safety Requirement of Knowledge, he argues for the thesis Anti-Luminosity thesis, for the thesis Anti-KK principle, and for the thesis Anti-Luminosity of Evidence. By the thesis Anti-KK Principle and the thesis Anti-Luminosity of Evidence, he argues for the thesis E = K. Finally, by the thesis E = K, Williamson argued for the thesis Knowledge Rule of Assertion. Thus, the argument for the thesis Knowledge Rule of Assertion is backed up by the seven theses. The thesis knowing is a mental state is the root of the thesis Knowledge Rule of Assertion. To help the reader to appreciate the argument for the thesis Knowledge Rule of Assertion thesis, I must start from the very beginning.

In the following chapters, I will demonstrate each argument for each thesis in the list. In chapter 1, I will show the argument for the thesis that knowing is a mental state, which is heuristic, also the argument for the thesis Primeness. In chapter 2, I will illustrate the argument for the thesis Safety Requirement of Knowledge, also the arguments for the thesis Anti-Luminosity and the thesis Anti-KK Principle. In chapter 3, I indicate the third consequence of the thesis Safety Requirement of Knowledge, i.e., the thesis Anti-Luminosity of Evidence thesis. In chapter 4, I will manifest how the thesis Anti-KK Principle and the thesis Anti-Luminosity of Evidence theses back up the argument for thesis E = K. After the argument for the thesis E = K had showed, everything is settled for our main course, i.e., the argument for the thesis Knowledge Rule of Assertion. I will show this argument in chapter 4.

The thesis that knowing is a mental state is the starting point of Williamson's epistemology. This thesis entails all theses from (2) to (7) in the above list, also the thesis Knowledge Rule of Assertion. In the conclusion chapter (Chapter 5), I will indicate that all these theses shows that for every model M, if M is a model for one's knowledge, then M is a model for one's evidence and also assertibility of *p*. In the model, all we need to assume is that there are a class (Λ) of *case*s wherein the condition one knows *p* obtains. Λ explains what is knowing *p*, in the sense that one knows *p* if and only if one is in a case belonging to Λ. Λ also explains what is one's evidence including *p*, in the sense that one's evidence includes *p* if and only if one is in a case belonging to Λ. Further, it explains assertibility, in the sense that *p* is assertible if and only if one is in a case belonging to Λ. In other words, one knows *p* if and only if one's evidence includes *p*; one's evidence includes *p* if and only if *p* is assertible; also, one knows *p* if and only if *p* is assertible. With the class Λ in hands, it is nothing surprise that one must: assert *p* only if one knows *p*, since the cases wherein one is assertible are precisely the cases wherein one knows *p*.

Chapter 1

Mental State and Prime Condition

The burden of this chapter is demonstrating the arguments of two theses of Williamson's epistemology. They are the thesis that *knowing is a mental state* and the thesis *Primeness*.

The thesis that knowing is a mental state (KMS) claims that the state of *one knowing p* is mental. This claim contrasts starkly with the traditional view about knowledge, which conceives the state of one knowing *p* as a hybrid of mental and non-mental state. For example, in the traditional view, the state of one knowing that snow is white is a hybrid consisting of the state of one believing snow is white and the state of snow being white (plus other component), where the former state is mental and the latter is non-mental. For Williamson, however, the state of one knowing that snow is white is *not* such a hybrid, but *purely* a mental state. Obviously, the state of one knowing *p* entails the state of *p* being true. Williamson denotes this kind of states *factive mental state*. In other words, the thesis KMS claims that there are factive mental states. In section 1.1, I will show Williamson's argument for the thesis KMS.

According the thesis KMS, the state of one knowing *p* is mental, which entails *p* is true. Since the state is mental, the state of one knowing *p* hinges on the physical state of an agent (Williamson denotes this state as *internal state*). One knows *p* entails *p* is true. That *p* is true may hinges on the physical state of the external world (Williamson call this state as *external state*), say, *p* is that snow is white. So that the mental state of one knowing *p* hinges on a external state as well. Therefore, both internal and external states contribute to the state of one knowing *p*. Because one is in a mental state (σ) if and only if the *condition* for being in σ obtains, the obtaining of the condition for being in the state of one knowing *p* hinges on both internal and external states. (Williamson denotes this

condition as *the condition that one knows p*). This is the thesis Broadness. (Timothy Williamson, 2000, pp.49-64). I will however skip this thesis. I skip this thesis *not* because its not important. This thesis is of course important since it violently shakes tradition view on mental state, which conceives that *only* internal state provides contribution to a mental state. For example, in order to argue against physicalism which claims mental state can be reduced to physical state, C. D. Broad[2] shows that an archangel is in no position to know the experience of smelling ammonia even though he knows every physical structure of *the agent*.

> He [the archangel] would know exactly what the microscopic structure of ammonia must be; but he would be totally unable to predict that a substance with this structure must smell as ammonia does when it gets into the human nose. The utmost that he could predict on this subject would be that certain changes would take place in the mucous membrane, the olfactory nerves and so on. But he could not possibly know that these changes would be accompanied by the appearance of a smell in general or of the peculiar smell of ammonia in particular, unless someone told him so or he had smelled it for himself. (Broad, 1925, p.71)

When it comes to mental state, Broad *only* concerns the physical state of *the agent*. This suggests that Broad believes that only internal state offers contributions to a mental state. The same happens in H. Feigl's argument against physicalism.[3]

> For the sake of argument, we assume compete physical predictability and explainability of the behavior of humans equipped with vision, a sense of humor, and sentiments of piety. The Martian could then predict all

[2] Broad, C. D. 1925. *The Mind and its Place in Nature*. New York: The Humanities Press Inc, London: Routledge & Kegan Paul LTD.

[3] Feigl, H. 1958. "The Mental and the Physical". Herbert Feigl, Michael Scriven & Grover Maxwell (eds). *Minnesota Studies in the Philosophy of Science II: Concepts, Theories, and the Mind-Body Problem*. University of Minnesota Press, Minneapolis.

> responses, including the linguistic utterances of the earthlings in the situations which involve their visual perceptions, their laughter about jokes, or their (solemn) behavior at the commemoration. But *ex hypothesi*, the Martian would be lacking completely in the sort of *imagery* and *empathy* which depends on familiarity (direct acquaintance) with the kinds of *qualia* to be imaged or empathized. (H. Feigl, 1958, p.431)

The Martian cannot know the qualia, even though it knows every physical state *inside the agent*. Broad, and Feigl attempt to argue against physicalism, the strategies of their argument suggests that all of them presupposed that *only* internal state contributes to a mental state supervenes on physical state. From this traditional point of view, an external state never contributes to one's mental state. For Williamson, however, there is a mental state receives contributions offered from both an internal state and an external state. This should be enough to show that the thesis Broadness is important. I skip this thesis not because it is not important, but it is too obvious a consequence of the thesis KMS.

For Williamson, both an internal state and an external state contribute to a pure mental state, i.e. the mental state of one knowing *p*. A more interesting question is whether the contributions offered from an internal state and an external state can be treated *separately*. For Williamson, the contributions offered from the internal and external states cannot be treated separately, these contributions are *woven together* (the thesis Primeness). Since the contributions from an internal state and an external state cannot be separately evaluated, the *condition* that one knows *p* should not be a conjunction of an *internal condition* which is satisfied by an internal state and an *external condition* which is satisfied by an external state. Consequently, a *case* is called for to characterize the contributions offered from an internal state and an external state. In section 1.2, I will illuminate Williamson's argument for the thesis Primeness.

In section 1.3, I will examine the criticisms of Quassim Cassam, Elizabeth Fricker, and Frank Jackson. Cassam claims that the state of one knowing *p* can be explained by different *means* through which one is in the state of knowing *p*.[4] If this *was* true, the state of one knowing *p* is just the disjunction of the *means* through which one is in the *state* of knowing *p*, so that in a sort of sense, there is no such mental state as one knowing *p*. Fricker complaints about the thesis KMS that it is impotent to explain the entailment relationship among the state of one knowing *p* and the state of one believing *p*.[5] Jackson criticizes the thesis KMS by claiming that the state of one knowing *p* is not prime *state*.[6] I will show that all of these criticisms are wanting.

1.1 Knowing as a Mental State

Williamson claims that the state of one knowing *p* is *purely mental* (the thesis KMS). This is the starting point of Williamson's epistemology program. For this thesis Williamson has provided a heuristic argument which meets three putative challenges follow.

(1) A mental state is *transparent*, while the state of one knowing *p* is not.

(2) Knowing whether one knows *p* requires evaluating reasons for and against *p* in a way in which knowing whether one believes *p* does not.

(3) one's belief about one's knowledge is defeasible by new information, while one's belief about one's mental state is not.

In this section, I will illustrate Williamson's arguments indicating that these putative challenges are wanting.

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[4] Cassam, Q. 2009. 'Can the Concept of Knowledge be Analysed?'. *Williamson on Knowledge*. Patrick Greenough and Duncan Pritchard (eds). Oxford University Press, pp.12-30.

[5] Fricker, E. 2009. 'Is Knowing a State of Mind? The Case Against'. *Williamson on Knowledge*. Patrick Greenough and Duncan Pritchard (eds). Oxford University Press, pp.31-59.

[6] Jackson, F. 2009. 'Primeness, Internalism, Explanation'. *Williamson on Knowledge*. Patrick Greenough and Duncan Pritchard (eds). Oxford University Press, pp.109-121.

The thesis KMS claims that the state of one knowing *p* is (purely) mental, so that this state is not a hybrid of a mental state and non-mental state. This consequence vividly contrasts to the traditional view on *knowing*, which conceives the state of one knowing *p* as a hybrid of a mental state (say, one believing p*)* and a non-mental state (say, *p* being true). In the traditional view, the extension of the concept *knows* is just a class of hybrids which consists of the states one believing *p*, *p* being true, and other components. Thus, in the traditional view, the concept *knows* is analyzable as the concepts *believes*, *true*, and others (say, *being justified in believing p*). This analysis is *not* feasible in Williamson's view on *knowing*. Although the concept *knows* is not analyzable, however, this will never mean that this concept is not capable of being characterized. In this section, I will also demonstrate how Williamson employs three axioms characterizing the concept *knows*.

I start with illustrating the heuristic argument for the thesis KMS. The first putative challenge against the thesis KMS is that mental state is *transparent*, in the sense that for every mental state σ, whenever one is suitably alert and conceptually sophisticated, one is in a position to know whether one is in σ (I denote this claim as *the thesis Transparency*). In other words, one is in σ only if one *knows* that one is in σ, and one is *not* in σ only if one *knows* that one is not in σ. The state of one knowing *p* is notoriously *not* transparent. For example, without knowing that Lincoln had just been assassinated at Ford's Theatre, one might believe that one knows Lincoln is President. However, since Lincoln is dead, he is no longer President so that one does *not* know that Lincoln is President (one knows *p* entails *p* is true). Since the state of knowing *p* is *not* transparent, if a mental state was transparent, knowing is *not* a mental state.

Of course, we have *privileged* accessibility to our own mental state; we do know whether we are in a mental state *most of the times*. Despite this privilege, it is doubtful that the thesis Transparency holds. If there are situations wherein one may doubt whether one is in a certain mental state, this should be enough to show that the thesis Transparency fails. Williamson employs the following three examples to *remind* us of the fact that there are such situations wherein one may

doubt one's own mental state. The first one is: sometimes, one is in no position to know whether one is in the mental state of hoping *p*. One believes that one does not hope for a particular result to a match; one is conscious of nothing but indifference; then one's disappointment at one outcome reveals one's hope for another (Timothy Williamson, 2000, p.24). The second example shows that in some situations one may *not* know one's own belief. The difference between believing *p* and merely fancying *p* depends in part on one's dispositions to practical reasoning and action manifested *only in counterfactual circumstances*, and one is not always in a position to know what those dispositions are. The third example is about pain. With too much self-pity one may mistake an itch for a pain, with too little one may mistake a pain for an itch. (Timothy Williamson, 2000, p.24) The point of these examples is that *in some situation*, one may *doubt* her own mental state; one does not *always know* her own mental state. Once we pay attention to such situations, the thesis Transparency isn't a threat against the thesis KMS.

I turn to another putative challenge agains the thesis KMS, i.e., that knowing whether one knows *p* requires evaluating reasons for and against *p* in a way in which knowing whether one is in a mental state does not. However, this challenge also fails, simply because there is a typical mental state requiring evaluating reasons to know whether one is in it, say, *rationally believing p.* If one accepts that rationally believing *p* is a mental state, then the requirement of evaluating reasons cannot be a criticism against the thesis KMS.

One might be misled to deny the claim that rationally believing *p* is a mental state by the putative challenge that the state involves a *normative* concept *rationally*. To reject this putative challenge, it is enough to show that even the typical mental state of believing has normative characteristic. This normative characteristic is revealed when the fact that to believe *p* one needs *grasping* the propositional content of *p* is heeded. Because the act of *grasping* the propositional content of proposition has normative characteristic, the state of believing a proposition also has normative characteristic. Since the state of believing *p* has normative characteristic, one cannot

reject the claim that the state of rationally believing is mental simply by the putative challenge that this state involves normative concept. The state of rationally believing *p* is mental even though it involves normative characteristic.

The last putative challenge against the thesis KMS is that one's belief about one's knowing *p* is defeasible by new information, while one's belief about one's mental state is *not* (Timothy Williamson, 2000, p.25). One's beliefs about one's own knowledge is obviously defeasible by new information. For example, a citizen N.N who has not yet heard the news from Ford's Theatre wherein Lincoln has just been assassinated. Since Lincoln is dead so that he is no longer President, N.N. did not know that Lincoln is President. N.N. might still believe that he *knows* that Lincoln is President. He may however relinquish this belief later if he knew that Lincoln has been assassinated. One's belief about one's own knowledge is defeasible. But it is doubtful that one's belief about one's mental state is not defeasible. For example, one might believe that one think clearly about a problem. However, this belief is defeasible by later discovery that a drug had slipped into one's mouth (Timothy Williamson, 2000, pp.25-26). One's belief about one's mental state is defeasible as well as belief about one's knowledge.

The foregoing three putative challenges against the thesis KMS are all criticisms deserving consideration. I have illustrated Williamson's replies to all of these challenges. By fencing off all of them, Williamson has showed that the thesis KMS is firmly grounded.

The thesis KMS leads immediately to the consequence that the state of one knowing *p* is not a hybrid of mental and non-mental states. This consequence starkly contrasts with the traditional view on the state of one knowing *p*, which conceives the state is a hybrid of the states of one believing *p*, of *p* being true, and other component (say, one being justified in believing *p*). According to this traditional view, the state one knowing *p* includes both the state of one believing *p* which is mental and the state of *p* being true which is *non*-mental. Therefore, on the traditional view, the state of one

knowing *p* is nothing but a hybrid of mental and non-mental states. Since the state of one knowing *p* is such a hybrid, the state is *not* (purely) mental in the traditional view.

The state of one knowing *p* is mental, nevertheless, it *entails* the state of *p* being true, which is non-mental. One may feel something paradoxical that a mental state entails *p* is true, which is a non-mental, thus one may claim that the state one knowing *p* should *not* be mental. Williamson shows that this entailment relationship is *not* paradoxical as it seems. Consider the following example.

> Let π_1 be the property of being an equilateral triangle, π_2 the property of being a triangle whose sides are indiscriminable in length to the naked human eye, and π_3 the property of being a triangle. Necessarily, everything that has π_1 has π_2, because lines of the same length cannot be discriminated in length; necessarily, everything that has π_2 has π_3. Nevertheless, although π_1 and π_3 are geometrical property, π_2 is not a geometrical property, because it varies with variations in human eyesight. (Timothy Williamson, 2000, p. 28)

Even though the property π_1 is geometrical while the property π_2 is non-geometrical, these facts do *not* fail the entailment relationship among π_1 and π_2. Therefore, there is nothing paradoxical that a geometrical state entails a non-geometrical state, so that it should neither be paradoxical that a mental state entails a non-mental state.

There is a mental state which entails its propositional content. For example, the mental state of one seeing that Oscar is playing chess entails the non-mental state of Oscar being playing chess; the mental state of one could hear that a volcano erupts also entails the non-mental state of the volcano erupting. Williamson calls such mental state *factive*. The mental state of 'α Φs *p*' is *factive* means that the mental state of α Φs *p* entails *p* is true, where α is an agent, *p* a proposition, and Φ a factive mental state operator (FMSO). FMSO includes *sees*, *remembers*, *hears*, to mention a few.

Knows is also a FMSO since the mental state of one knowing *p* entails *p* is true. Moreover, *knows* is a very special FMSO, because for every FMSO Φ, that one Φs *p* entails one *knows p*. In this sense, *knows* is *the most general factive mental state operator*. Following these basic ideas of FMSO and *knows*, Williamson characterizes the concept *knows* with the following three axioms.

(K_1) If Φ is an FMSO, from 'S Φs that A' one may infer 'A'.

(K_2) 'Know' is an FMSO.

(K_3) If Φ is an FMSO, from 'S Φs that A' one may infer 'S knows that A'.

While K_2 is obviously true, K_1 and K_3 need some glosses, otherwise they are vulnerable. In the following two paragraphs, I will show the glosses are needing.

A FMSO is *unanalyzable into more basic semantic unit*. Although from 'one *believes truly* that *p*' one may infer that *p*, still *believes truly* is *not* a FMSO, because *believes truly* is *semantically* analyzable (into *believes* and *true*). Although an FMSO Φ may be *syntactically* combination of verbs (v_1, ..., v_n), however, Φ is not *semantically* analyzable into v_1, ..., v_n. For example,

(1) She *could hear* the volcano is erupting.

If 'could hear' *was* semantically analyzable into more basic semantic unit, the most plausible interpretation of (1) would be that 'she *has the ability* to hear the volcano is erupting' which does not entail that the volcano is erupting. However, the natural reading of (1) is factive. (1) can be roughly interpreted as that she knew the volcano is erupting by aural (I never mean that they are *synonym*). Here, 'could' and 'hear' fussed together to express a single semantic unit, otherwise, it is hard to see why (1) is factive. The following example shows that 'Could feel' behaves in the similar way.

(2) She could feel her bone has broken.

If 'could feel' was semantically analyzable into more basic semantic units, the most plausible interpretation of (2) would be 'she has the ability to feel her bone has broken' which is not factive. However, in the natural reading of (2), it roughly means that she knew that her bone has broken

with tactile. Similar to 'could' and 'hear' in example (1), 'could' and 'feel' fussed together as a single semantic unit. Semantically, Φ is an unanalyzable expression. Even though *Believes truly* is factive, it fails to be a FMSO since it is analyzable. If it was a FMSO, by K_3, from that one believes truly that *p* we had that one knows *p*. This result is undesirable. The non-analyzability requirement of FMSO blocks this undesirable result.

One might object to K_3 by the example follows. One might see John is drinking martini but does not know that John is drinking martini, because one believes that John is drinking water. By all mean, this example cannot threaten K_3, because one does *not* see *that* John is drinking martini, but just *a situation* wherein John is drinking martini. Therefore, this example does not threaten K_3. Another challenges against K_3 goes as following. One may seeing John is drinking martini but does not know that John is drinking martini, because one does *not* grasp the concept *martini*. However, this example does not refute K_3. To see why, I need to talk about the usage of FMSO. FMSO typically takes as subject a term for something animate and as object a term consisting of 'that' followed by a sentence. According to this usage of FMSO, a factive mental state 'S Φs that *p*' attributes a proposition attitude *p* to S. Since factive mental state attributes a proposition attitude *p* to S, so that in order to see *that p*, S must grasp *p*. To see *that* Olga is playing chess, one already grasped the proposition *that Olga is playing chess*. Without grasping the proposition, one cannot see *that* Olga is playing chess, even though one might see *a situation* wherein Olga is playing chess. Let us revert to the example of martini above. In the example, one only sees the *situation* wherein John is drinking martini, but does *not* see *that* John is drinking martini, since one does not grasp the proposition *that* John is drinking martini.

The three axioms of *knows* seems pretty thin, however, they are enough to characterize the concept *knows*, and the state of one knowing *p*. By K_2 the state of one knowing *p* is a factive mental state. By K_3 the state of one knowing *p* is the *most general* factive mental state. By K_1 human has a mental state which entails *p* is true. Incidentally, that *p* is true might hinges on the state of the

external world. For example, that snow is white is true hinges on the state of the external world. So that the state of one knowing *p* should hinges on an external state. Further, since the state of one knowing *p* is mental, the state of one knowing *p* should hinge on an internal state. Therefore, the state of one knowing *p* receives contributions offered from both internal and external states. These three axioms deny the traditional view of mental states which claims that *only* internal state offers contribution to mental state. They entail that both internal and external states provide contributions to the mental state of one knowing *p*. Since one is in the mental state of one knowing *p* whenever the condition that one knows *p* obtains, the obtaining of the condition that one knows *p* hinges on both internal and external states (the thesis Broadness). Therefore, the condition that one knows *p* is *broad*. However, for Williamson, the contributions to the mental state of one knowing *p*, which offer from internal and externals cannot be treated separately, so that the condition that one knows *p* is not a conjunction of a *narrow* condition which is satisfied by internal state and an *environmental* condition which is satisfied by an external state, in this sense the condition that one knows *p* is *prime*. In the next section, I will illustrate Williamson's argument for the claim that the condition one knows *p* is prime.

1.2 Prime condition of mental state

In this section, I will demonstrate Williamson's argument for the thesis Primeness, which claims that the contributions offered from an internal state and an external state cannot be treated separately, so that the *condition* one knows *p* is not a conjunction of a narrow *condition* satisfied by an internal state and an environmental *condition* satisfied by an external state. In this sense, the *condition* that one knows *p* is *prime*. Consequently, a *case* is called for to characterize the contributions offered from an internal state and an external state. Before this demonstration, I would like to illustrate the significance of the thesis Primeness.

In the previous section, I illustrated Williamson's heuristic argument for the thesis knowing is a mental state (the thesis KMS). This thesis achieves significant impact upon the traditional view on mental states. I have mentioned that philosophers traditionally conceives that only an internal state contribute to a mental state. The thesis KMS entails, however, that both an internal state and an external state provide contribution to a factive mental states, say, one knowing *p*. This entailment relationship can easily been showed as following. Since the state of one knowing *p* is mental, an internal state obviously provides contribution to this state. Further, since *knows* is a FMSO, the state of one knowing *p* entails *p* is true. Incidentally, that *p* is true might hinge on an external state. For example, if *p* is that it is snowing, then that *p* is true hinges on an external state. So that an external state also offers contribution to the mental state of one knowing *p*. Thus, both internal and external state contribute to the state of one knowing *p*. One is in the mental state of one knowing *p* if and only if the condition that one knows *p* obtains. Since both internal and external state provide contribute to the state of one knowing *p*, the obtaining of the *condition* that one knows *p* hinges on both internal and external states (the thesis Broadness). In other words, the *condition* that one knows *p* is broad.

Because internal state is obviously different from external state, it is tempting to treat *separately* the contributions to the mental state of one knowing *p*, which offered from internal and external states. Even the so-called externalist, say, Tyler Burge, agrees that the contributions offered from these different states can be clearly cut.

> The thought experiment (the example of arthritis) does not play on psychological 'success' verbs or 'factive' verbs—verbs like 'know', 'regret', 'realize', 'remember', 'foresee', 'perceive'. This point is important for our purposes, because such verbs suggest an easy and clearcut distinction between the contribution of the individual subject and the objective,

> 'veridical' contribution of the environment to making the verbs applicable.
>
> (Burge, 2007, p.114)[7]

Whenever the contributions offered from an internal state and an external state can be treated separately, the condition that one knows *p* is but a conjunction of a narrow condition satisfied by an internal state and an environmental condition satisfied by an external state. Thus, Burge's view suggests that the condition that one knows *p* is just a conjunction of a narrow condition and an environmental condition. For Williamson, however, the contributions offered from an internal state and an external state cannot be treated separately, thus the condition that one knows *p* is *not* a conjunction of a narrow condition and an environmental condition, i.e., the thesis Primeness.

I will soon demonstrate the argument for the thesis Primeness. Before this demonstration, I would like to illustrate the basic idea of the argument, which makes the argument more accessible to the reader. Suppose the contributions to the state of one knowing *p*, which are offered by an internal state and an external state can be treated separately, the condition that one knows *p* is just a conjunction of a narrow condition and an environmental condition. Suppose further that the condition that one knows *p* obtains in *cases* α and β, by the assumption that the condition that one knows *p* is just a conjunction of a narrow condition and an environmental condition, the narrow condition obtains in the internal states of α and β, and the environmental condition obtains in the external states of α and β. If these were true, the condition one knows *p* should also obtain in the *case* (γ) which is the combination of the internal state of α and the external state of β, because the narrow condition obtains in the internal state of α, and the environmental condition obtains in the external state of β. Thus, if the condition one knows *p* obtains in α and β but fails in the case γ, this phenomena should be enough to show that the condition that one knows *p* is not a conjunction of a narrow condition and an environmental condition. Thus, The core of Williamson's argument for the

[7] Burge, T. 2007. *Foundations of Minds*: *philosophical essays*, vol. 2. Oxford University Press.

thesis Primeness is finding such a triple of cases $\langle\alpha,\beta,\gamma\rangle$ where the condition that one knows *p* obtains in α and β, but fails in γ.

In the foregoing discuss, Williamson employed some technical notions, say, *case*, *narrow condition*, *environmental condition*. It is prudent to give more restrict definitions to these notions. The parentheses in the following definitions is just to specify the scope of logical connectives.

A *case* is a possible total state of a system consisting of an agent paired with an external environment at a time. (Williamson, 2000, p.52)

A case α is said to be *internally like* β if and only if the physical state of the agent in α is the same with the physical state of the agent in β. (Williamson, 2000, p.52)

A case α is said to be *externally like* β if and only if the physical state of the external environment in α is the same with the physical state of the external environment in β. (Williamson, 2000, p.52)

A *condition* either *obtains* or *fails to obtain* in each case. Also, a condition *C* is *C** if and only if (for every case α, *C* obtains in α if and only if *C** obtains in α). (Williamson, 2000, p.52)

A condition *C entails* a condition *D* if and only if (for every case α, *C* obtains in α only if *D* obtains in α). (Williamson, 2000, p.52)

A condition *C* is *narrow* if and only if (if α is internally like β then (*C* obtains in α if and only if *C* obtains in β)). (Williamson, 2000, p.52)

A condition *C* is *environmental* if and only if (if α is externally like β then (*C* obtains in α if and only if *C* obtains in β)). (Williamson, 2000, p.66)

A condition is *composite* if and only it is the conjunction of some internal condition with some external condition. (Williamson, 2000, p.66)

A condition is *prime* if and only it is not composite. (Williamson, 2000, p.66)

With these definitions in hands, we are now ready for to examine Williamson's argument. As I have said before, at the core of Williamson's argument is a triple of cases $\langle\alpha,\beta,\gamma\rangle$ such that γ is

internally like α, and externally like β, where the condition that one knows *p* obtains in α and β, but fails in γ. The following triple of cases shows that there is such a triple. Let α be the case wherein Mary emits sound waves only of frequency *f* while John emits sound waves only of frequency *g*, and one's aural only registers frequency *f*. Obviously, in α one could hear that Mary is around. Since could hear is factive, by K_3, one knows mary is around. Let β be the case wherein Mary emits sound waves only of frequency *g* while John emits sound waves only of frequency *f*, and one's aural only registers frequency *g*; thus one also could hear that Mary is around so that one knows Mary is around. Let γ be the case which is internally like α and externally like β. In α, one's aural only registers sound wave of frequency *f* (internal state of α). In β, Mary only emits sound waves of frequency *g* (external state of β). As a result, in γ, one's aural only registers sound wave of frequency *f* and Mary only emits sound waves of frequency *g*. Therefore, one cannot hear Mary is around, so doesn't know that Mary is around (suppose one doesn't see Mary). Thus, the condition that one could hear Mary and the condition that one knows Mary is around are prime.f

One *could hear* that Mary is around in α and β, but not in γ. This triple of cases $\langle \alpha, \beta, \gamma \rangle$ shows that the condition that one knows Mary is around is prime. By similar strategy, one can find many triples of this kind, which show that many conditions are prime. For example, by this strategy, one may find a triple of this kind showing that the condition one sees that there is a glass of water is also prime (Timothy Williamson, 2000, pp.69-70). Nevertheless, this strategy has its drawbacks. For some propositions (*p*), it fails to show that the condition that one knows *p* is prime, say, one knows that one exists, one knows that $a = a$. For these two propositions, the strategy fails because there is no case wherein the condition that one knows that one exists (or the condition that one knows that $a = a$) fails so that one cannot find such a triple $\langle \alpha, \beta, \gamma \rangle$ of cases, where the condition one knows that one exists obtains in both α and β but fails in γ. However, these special propositions are minority; for most propositions (*p*), the condition one knows *p* obtains in some cases and fails in

other cases. Therefore, for most proposition (*p*), this strategy can be adopted in demonstration of the condition that one knows *p* being prime.

1.3 Criticism

In this section, I will examine several criticisms against the thesis that knowing is a mental state, including criticisms of Quassim Cassam (2009), of Elizabeth Fricker (2009), and of Frank Jackson (2009). Cassam claims that the state of one knowing *p* can be explained by different *means* whereby one is in the state of knowing *p*, say, *one sees that p*, *one remembers that p*, to mention a few. If this *were* true, the state of one knowing *p* is just the disjunction of the *means*. Fricker claims that the thesis KMS is impotent in explanation of the entailment among the state of one knowing *p* and of one believing *p*. Frank Jackson claims that the state one knowing *p* is not prime *state*. The reader will see that all of these criticisms are wanting.

Let us first examine the criticism of Cassam. He claims that the state of one knowing *p* can be explained by different *means* whereby one is in the state of one knowing *p*.

> Instead, the Means Respond explains how one knows that A by identifying the means by which one actually came to know it, and it explains what it is to know that A by identifying different possible means of knowing it, including the means by which one actually came to know it. Since there may be countless different means of coming to know that A, the Means Response does not try to come up with a complete list. (Cassam, 2009, p.27)

To give Cassam the best chance, I suppose that there is such a complete list (Φ_1, Φ_2, ..., Φ_n, ...), where all $\Phi_{i\ (i \in \omega)}$ is FMSO. Even though that (one $\Phi_1\ p \vee$ one $\Phi_2\ p \vee ... \vee \Phi_n\ p \vee ...$) if and only if one knows *p* holds, this would not mean that the state of one knowing *p* can be explained by the infinite disjunction, simply because one may grasp the concept *knows* without grasping the concept

sees (just consider a born-blind person), or without grasping the concept could hear (just consider a born-deaf person). Therefore, we cannot explain the state one knowing *p* in terms of a corresponding disjunction with infinite many disjuncts.

Let us now turn to the criticism of Elizabeth Fricker. Her criticism against the thesis KMS is that it cannot provide explanation to the entailment relationship among the state of knowing *p* and the state of believing *p*, or the state of *p* being true. In section 1.1 I mentioned that, for Williamson, the state of one knowing *p* is *not* a hybrid of a mental state (say, one believing *p*) and non-mental state (say, *p* being true). Despite denial this hybrid, Williamson claims that the state of one knowing *p entails* the state of one believing *p,* and of *p* being true. Fricker does not see how the state of one knowing *p* entails believing *p* (or *p* is true), if the state of one knowing *p* is not the hybrid of a mental state and a non-mental state.

> But this example (the color example in *Knowledge and Its Limits*, p.32) does not provide any insight into why, in the rather different case of knowing, these a priori necessary conditions exist, if not because of implicit semantic complexity in 'knows'. Williamson further suggests that one condition may be a priori necessary for another, not because appreciation of this is involved in grasp of either of those concepts; rather, it may be that two concepts are such that, though learned independently of any linkage between them, once mastered 'the area demarcated by one concept might be so safely within the area demarcated by the other that one could know by a priori reflection that the former is sufficient for the latter' (KAIL 44). This bold new assertion of the possibility of synthetic a priori truth is intriguing, but without further exploration it remains the case that the existence of various a priori necessary conditions for knowing strongly suggests that

> 'knows' either is analysable, or has some other kind of semantic complexity.
>
> (Fricker, 2009, p.46)

Fricker suggests that to explain the entailment relationship among the state of one knowing *p* and the state of one believing *p*, we need taking the state of one knowing *p* as the hybrid of a mental state and a non-mental state. Putting this in her words, we need to appeal to the analyzability of the concept of *knows*. However, to explain the entailment relationship, there is no need to appeal to analyzability or semantic complexity of *knows*. The entailment relationship can be explained in the following way. Observe that *p* is true in every *case* wherein the condition that one knows *p* obtains. Also, whenever one is in the mental state of one knowing *p*, the condition that one knows *p* obtains. By these two observations, one is in the state of one knowing *p* only if *p* is true. Thus, the entailment relationship among these states is explained easily. By a similar strategy, we can also explain the entailment relationship among the states of one knowing *p* and of one believing *p*. Observe that the state of one believing *p* obtains in every case wherein the condition that one knows *p* obtains. Also, whenever one is in the mental state of one knowing *p*, the condition that one knows *p* obtains. By these two observations, one is in the state of one knowing *p* only if one is in the state of one believes *p*. I don't see any difficulty posed by Fricker's challenge.

Finally, let us pay our attention to Frank Jackson's criticism. His criticism was targeted on the thesis Primeness. Unfortunately, he mistakenly takes that the concept *prime* is applied to mental *state*.

> I end up, that is, opposing Williamson's view that such states are *prime*. It seems to me that a majority of philosophers of mind have taken it to be more or less obvious that remembering and knowing are not prime state.
>
> (Jackson, 2009, p.110)

This is a serious misunderstanding of the thesis Primeness, since the concept *prime* is applied to the *condition* that one knows *p*, not the *mental state* of one knowing *p*. This serious misunderstanding disarms his criticism.

1.4 Conclusion

So far, I have demonstrated Williamson's arguments for the thesis that knowing is a mental state (the thesis KMS) and for the thesis that the condition that one knows *p* is *not* a conjunction of a narrow and an environmental conditions (the thesis Primeness). Now, we may summarize these arguments, and then highlight the significances of these two theses.

The thesis KMS is the starting point of Williamson's epistemology. In section 1.1, I demonstrated his heuristic argument for this thesis which is deployed to defend against putative challenges including: (i) mental state is transparent, but knowing is not; (ii) knowing whether one knows *p* requires evaluations of reason for and against *p*, but knowing whether one is in a mental state does not; (iii) belief about one's knowledge can be defeated, but belief about one's mental state cannot be. Williamson replied to the first challenge by showing that mental state is *not* transparent. He rebutted the second challenge by illustrating that even belief ascription needs evaluating reasons as well, and quashed the last challenge by demonstrating that even one's belief about whether one believes *p* is defeasible by new information. Thus, Williamson shows that all of these challenge is wanting. Because these putative challenges are all the threats deserving attentions, after defended against all of them, the thesis KMS is heuristically grounded. The thesis KMS leads to the consequence that the state of one knowing *p* is *not* a hybrid of internal and external states. However, this consequence does not mean that there is nothing we can say about the concept *knows*. For Williamson, *knows* is the most general factive mental state operator. Based on this idea, the following axioms are suffice to characterize the concepts *knows*.

(K_1) If Φ is an FMSO, from 'S Φs that A' one may infer 'A'.

(K_2) 'Know' is an FMSO.

(K_3) If Φ is an FMSO, from 'S Φs that A' one may infer 'S knows that A'.

The thesis KMS leads to a consequence that there is a *mental* state which receiving contributions offered from both internal and external states. Obviously, the obtaining of the condition of being in such mental state hinges on both internal and external states. However, the contributions from internal and external states cannot be treated separately, so that the condition that one knows *p* is *not* a conjunction of a narrow condition and a environmental condition. Williamson illuminated this fact by showing the existence of the triple of cases $\langle \alpha, \beta, \gamma \rangle$, where the condition that one knows *p* obtains in α and β, but fails in γ.

The significance of the thesis Primeness is to indicate that the contributions to the state of one knowing *p*, which offered from internal and external states cannot be treated separately. They are woven together. Therefore, the contributions should be regarded as *a single unit* gained from *blending* the contributions from internal and external states. Accordingly, something is needed to distinguishing this blended contribution. Now, a *case* should be qualified characterizing this blended single unit, since it consists of internal and external state. An advantage of employing a *case* to characterize the blend of contributions offered from internal and external state is that ontological commitments *might* be reducible. With a suitable theory employing a *emergency property*, Williamson might be able to get rid of committing to the existence of an entity named '*case*'. For example, the blended contribution might be just a *property emerging* from suitable combination of an internal state and an external state, so that Williamson might need not committing to the entity called '*case*', but only to internal and external states. Of course, it *might* be clear later that Williamson could not escape from the paradise of *cases*. Whether Williamson needs to presuppose that there is such a entity is out of the scope of my thesis. At this point, I will just take a neutral stance on the ontological status of *cases*. However, this problem will not hinder

Williamson employing the very notion of *case* to characterize the blend of contributions offered from internal and external states.

The significance of the thesis Primeness is to indicate that the contributions to the state of one knowing *p* offered from an internal state and an external state are woven together. So that the notion *case* is called for to characterize this blended contribution. Since one is in mental state of one knowing *p* if and only if the condition that one knows *p* obtains, the obtaining of the condition that one knows *p* hinges on the *case* which one is in. Thus, the thesis Primeness has the consequence that the obtaining of the condition that one knows *p* hinges on the *case* which one is in. In the next chapter, one will see that this consequence is important in the argument for the thesis *Safety Requirement of Knowledge* which claims that the condition that one knows *p* obtains in a *case* only if *p* is true in every similar *case*.

Chapter 2

Anti-Luminosity and Anti-KK Principle

The aim of this chapter is illuminating Williamson's arguments for the thesis Anti-Luminosity and the thesis Anti-KK Principle. The thesis Anti-Luminosity claims that there is a case wherein the condition that one feels cold obtains, but one does not know that one feels cold. The thesis Anti-KK Principle claims that there is a case wherein the condition that one knows *p* obtains, but one does *not* know that one knows *p*. I will illuminate these two arguments in section 2.2.

In fact, these two theses are just consequences of the thesis *Safety Requirement of Knowledge* (SRK) which claims that one knows *p* in a case only if *p* is true in every similar case. I will illustrate the argument for this thesis in section 2.1.

In the previous chapter, I demonstrated Williamson's heuristic argument for the thesis that knowing is a mental state. This thesis leads to the thesis Broadness, which claims that there is a mental state hinges on both an internal state and an external state. I also showed the argument for the thesis Primeness, which claims that the contributions offered from an internal state and an external state cannot be treated separately, so that the condition that one knows *p* is *not* a conjunction of narrow condition and environmental condition. Therefore, the notion *a case* is called for to characterize these contributions. Consequently, the obtaining of the condition that one knows *p* hinges on *the case* which one is in. We can say that *the base* on which one knows *p* is the case which one is in.

In fact, the thesis SRK is just a consequence of the thesis Primeness. By the thesis Primeness, the obtaining of the condition that one knows *p* hinges on *the case* which one is in. Incidentally, one knows *p* entails one *reliably believes p*. The *case* wherein one knows *p* should be able to explain

this entailment relationship, since the obtaining of the the condition that one knows *p* hinges on the *case* which one is in. Williamson employs the thesis SRK to illuminate that this entailment relationship is able to be explained *by* a *case* wherein one knows *p*. Because there is no other plausible way employing a *case* to explain this entailment relation, the thesis SRK is a consequence of the thesis Primeness.

I will employ Goldman's thesis as a guide to the core of the thesis SRK. Alvin Goldman employs the concept *Reliable cognitive mechanism* (*process*) to explain the fact that one knows *p* entails that one reliably believes *p*.[8] For him, one knows *p* in the actual case entails that one has a reliable cognitive mechanism which distinguishes every *relevant possible state of affairs* wherein *p* is false from one's actual case (RA), where a relevant possible state of affairs is actually an external state. Thus, the source of one reliably believing *p* lies in this reliable cognitive mechanism, which is the weapon which Goldman employs to explains the entailment relationship among the state of one knowing *p* and the state of one reliably believes *p*. For Williamson, however, one can never has *the same* source of reliability in different state of affairs, which is in fact a consequence of the thesis Primeness, since the base on which one knows *p* is the *case* one is in, which consists of an internal and *an external state*. These facts shows that Goldman's explanation for the fact that one knows *p* entails one reliably believes *p* starkly contrasts to Williamson's explanation. This contrast should shed enough light on the thesis SRK.

In section 2.3, I will examine several criticisms. These criticisms include: (i) Goldman's doubt whether the thesis SRK has any advantage over his own thesis RA[9]; (ii) challenge of Ram Neta and Guy Rohrbaugh against the thesis SRK by some putative counter examples[10]; (iii) criticism of

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[8] Goldman, A. 1976. 'Discrimination and Perceptual Knowledge'. *The Journal of Philosophy*, Vol. 73, No. 20 (Nov. 18, 1976), pp. 771-791.

[9] Goldman, A. 2009. 'Williamson on Knowledge and Evidence'. *Williamson on Knowledge*. Patrick Greenough and Duncan Pritchard (eds). Oxford University Press, pp.73-91.

[10] Neta, R and Rohrbaugh, G. 2004. 'Luminosity and the Safety of Knowledge'. *Pacific Philosophical Quarterly*, 85: 396–406.

Anthony Brueckner and M. Oreste Flocco against the thesis SRK by putative counter examples[11]; (iv) Matthias Steup's criticism against Williamson's argument for the thesis Anti-Luminosity[12]; (v) P. X. Monaghan's criticism against the thesis SRK[13].

2.1 Safety Requirement of Knowledge

In this section, I will illustrate Williamson's argument for the thesis *Safety Requirement of Knowledge* (SRK) which claims that one knows *p* in a case only if *p* is true in every similar case. Even though it is a platitude, I still need to point out the fact that one knows *p* only if one *reliably* believes *p*, because this platitude is crucial for this argument. The traditional account for this fact appeals to the concept *reliable process*. Thus, one knows *p* only if one believes *p through a reliable process*. F. P. Ramsey may be the first philosopher who introduces this idea as a requirement of knowledge. In a very short paper, he says 'a belief was knowledge if it is true, certain and obtained by a *reliable process*'[14].

Alvin Goldman claims that one's belief *p* is entitled to be one's knowledge only if *p* is obtained by a reliable cognitive mechanism (or process). He says

> What kinds of causal processes or mechanisms must be responsible for a belief if that belief is to count as knowledge? They must be mechanisms that are, in an appropriate sense, "reliable". (Goldman, 1976, p.771)

Further, Goldman employs the notion of *relevant possible states of affairs* as testers to indicate that a cognitive mechanism is reliable.

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[11] Brueckner, A and Flocco, M. O. 2002. 'Williamson's Anti-Luminosity Argument'. *Philosophical Studies* 110 (3): 285-293.

[12] Steup, M. 2009. 'Are Mental States Luminous'. *Williamson on Knowledge*. Patrick Greenough and Duncan Pritchard (eds). Oxford University Press, pp.217-236.

[13] 'Monaghan, P. X. 2008. 'Williamson and the Argument from Luminosity'. *Dialogue* XLVII (2008): 619-32.

[14] Ramsey, F. P. 2000. 'Knowledge'. *The Foundations of Mathematics and Other Logical Essays*. Routledge. pp. 258-259.

> A person knows that p, I suggest, only if the actual state of affairs in which *p* is true is distinguishable or discriminable by him from a relevant possible state of affairs in which *p* is false. (Goldman, 1976, p.774)

For Goldman, one knows *p* in the actual state of affairs entails that one is able to distinguish *every* relevant possible state of affairs wherein *p* is false. He claims, 'If there is a relevant possible state of affairs wherein *p* is false and which is indistinguishable by him from the actual state of affairs, then he fails to know that *p*.' (Goldman, 1976, p.774) In other words, that one knows *p* entails that one can discriminate every possible relevant state of affairs wherein *p* is false (the thesis RA). For example, Sam does not know that the person before him is Judy, if he *would* believe the person before him is Judy while Trudy were standing before him.

> Where Sam correctly identifies Judy as Judy, the crucial counterfactual is: "If the person before Sam were Trudy (rather than Judy), Sam would believe her to be Judy." If this counterfactual is true, Sam doesn't know it is Judy. If this counterfactual is false (and all other counterfactuals involving relevant alternatives are also false), then Sam may know it is Judy. (Goldman, 1976, p.778)

Observe that a *state of affairs* is in fact an *external state*. For Goldman, possible relevant states of affairs, which are external states, are just *tools* for examination whether one reliably believes *p*. The state of one reliably believing *p* hinges on one's cognitive mechanism. The following metaphor illustrate Goldman's conception of *reliable* vividly. A reliable cognitive mechanism is just like a car, and possible relevant states of affairs are just like possible driving conditions. One can put a car in different possible driving conditions to examine whether the car is reliable. The reliability of the car depends on the car *itself*, not in different possible driving conditions. For Goldman, the state of one reliably believing *p* depends on the cognitive mechanism *itself*, not in possible relevant states of affairs, i.e., external states.

For Goldman, the state of one reliably believing *p* depends on one's cognitive mechanism. However, this is not plausible in Williamson's theory. To show why this is implausible, I need to revert to the thesis Primeness. According to the thesis Primeness, the obtaining of the condition that one knows *p* hinges on the case which one is in, so that the *base* on which one knows *p* is the case which one is in. The case wherein one knows *p* should be able to explain the entailment relationship among the state of one knowing *p* and the state of one reliably believing *p*. Because a case consists of an internal state and an external state, an external state should also play a part in the explanation of this entailment relationship. For Williamson, an external state is *not* a tool for examination whether one reliably believes *p*, but an integral part of the *base* on which one reliably believes *p*.

Williamson proposes the thesis *Safety Requirement of Knowledge* (SRK) to explain the entailment relationship among the state of one knowing *p* and the state of one reliably believing *p*. The thesis SRK claims that one knows *p* in a case only if *p* is true in every similar case. Although one's base on which one *reliably believes p* in each case is *slightly different* from one's base in similar cases, those similar cases are still suitable tools to examine whether one reliably believes *p* in one's case. The following metaphor should be suitable to illustrate the idea behind the thesis SRK. A case (α) wherein one reliable believes *p* is just like a box of milk (*m*) which is safe to consume. Cases which are similar to α are just like boxes of milk which are similar to *m*. Even though *m* is different from other similar boxes of milk, *m* can be examined whether it is safe to consume by examination on every similar box. We can employ similar boxes as tools to examine whether *m* is safe to consume. But, similar boxes do *not offer* contribution to the safety of *m*, they are just tools for examination. The safety of *m* lies in *m itself*. Similarly, although the case (α) wherein one reliably believes *p* is different from other similar cases, α can be examined whether one reliably believes *p* in it by testing on similar cases. Similar cases do *not offer* contribution to the safety of α, they are just tools for examination. On the one hand, the thesis SRK explains the entailment relationship among the state of one knowing *p* and the state of one reliably believing *p*,

since *p* is true in every similar case. On the other hand, the explanation only appeals to the case *itself* wherein one knows *p.*

For Goldman, the state of one reliably believing *p* hinges on the fact that one has a cognitive mechanism which is able to distinguish every possible state of affairs wherein *p* is false from one's actual state of affairs. Having such a cognitive mechanism is the key to be reliably believing *p*. For Williamson, however, having a cognitive mechanism is never sufficient to be reliably believing *p*. The state of one reliably believing *p* hinges on *the case* which one is in. Since a *case* consists of an internal state and an external state, to determine whether one reliably believes *p*, we cannot just consider whether one has a suitable cognitive mechanism. This difference is vividly illustrated by the contrast between thesis RA and the thesis SRK. For Goldman, since the source of the state of one reliably believing *p* lies in one's cognitive mechanism, even a possible relevant state of affairs wherein *p* is false are qualified as a tester. Thus, Goldman claims that one reliably believes *p* in one's actual state of affairs only if one's cognitive mechanism is able to distinguish every possible relevant state of affairs wherein *p* is false, i.e., the thesis RA. For Williamson, since the case (α) wherein one reliably believes *p might* be *sufficiently* different from a case (β) wherein *p* is false, the base of one reliably believing *p* in α is sufficiently different from one's base in β, so that one's bases in case β does *not* concern whether one reliably believes *p* in α. Therefore, It is not plausible to claim that *all* possible relevant states of affairs are suitable to examine whether one reliably believes *p*. *Only* those cases which are similar to one's case are qualified as a tester, so that one reliably believes *p* in a case only if *p* is true in *every* similar case, i.e., the thesis Safety Requirement of Knowledge.

The thesis Primeness leads to the consequence that a *case* is the base of the obtaining of the condition that one knows *p*. Taking a case as the base of the obtaining of the condition that one knows *p* leads to the thesis Safety Requirement of Knowledge. In the next section, I will show two

astonishing results of the thesis SRK: (i) the thesis Anti-Luminosity and (ii) the thesis Anti-KK Principle.

2.2 Anti-Luminosity and Anti-KK Principle

The thesis that one knows *p* in a case only if *p* is true in every similar case (SRK) entails the following two thesis.

(i) the Anti-Luminosity thesis: there is some case(s) in which the condition *C* for some mental state obtains but one does not know that *C* obtains.

(ii) the Anti-KK principle thesis: there is some case(s) in which the condition (*K*) for one knows *p* obtains but one does not knows that *K* obtains.

Some philosophers hold that one's mental state is transparent in the sense that one is always in a position to know whether one is in a mental state. Descartes is a salient proponent of such a view of mental state. Many textual evidence shows that Descartes think that mind is a transparent realm. The following are some textual supports.

> I see that without any effort I have now finally got back to where I wanted. I now know that even bodies are not strictly [*proprie*] perceived by the senses or the faculty of imagination but by the intellect alone, and that this perception derives not from their being touched or seen but from their being understood; and in view of this I know plainly that I can achieve an easier and more evident perception of my own mind than of anything else. [15](Descartes, 1996, pp.22-23)

> As for the will and the emotions, here too one need not worry about falsity; for even if the things which I may desire are wicked or even non-existent, that does not make it any less true that I desire them. Thus the only

[15] Descartes, R. 1996. *Meditations on First Philosophy*. John Gottingham (eds). Cambridge University Press

> remaining thoughts where I must be on my guard against making a mistake are judgements. (Descartes, 1996, p.26)

For Descartes, the realm of mental states is transparent, in the sense that whenever one is in a mental state, one is in a position to know that one is in the mental state. This realm is human's cognitive home. By the thesis Anti-Luminosity, however, Williamson shows that in some cases, the condition of being in a mental state obtains but one does not know that this condition obtains. In this sense, the condition of being in a mental state is *not luminous*. Since one is in a mental state if and only if the condition of being in this mental state obtains, in some cases one is in a mental state but one does not know that one is in it. For Williamson, there is not the so-called cognitive home. Since *knowing* is also a mental state, It is not surprise that in some cases, one knows *p* but one does not know that one knows *p*. Therefore, KK Principle fails.

I start demonstrating Williamson's arguments for the thesis Anti-Luminosity. Consider the following story.

> 'Consider a morning on which one feels freezing cold at dawn, very slowly warms up, and feels not by noon. One changes from feeling cold to not feeling cold, and from being in a position to know that one feels cold to not being in a position to know that one feels cold. If the condition that one feels cold is luminous, the changes are exactly simultaneous. Suppose that one's feelings of heat and cold change so slowly during this process that one is not aware of any change in them over one millisecond. Suppose also that throughout the process one thoroughly considers how cold or hot one feels. One's confidence that one feels cold gradually decreases. One's initial answers to the question 'Do you feel cold?' are firmly positive; then hesitations and qualifications creep in, until one gives neutral answers such as 'It's hard to say'; then one begins to dissent, with gradually decreasing hesitations and qualifications; one's final answers are firmly negative.' (Williamson, 2000, p.96)

Let *C* be the condition that one feels cold. Although the protagonist knows whether *C* obtains or not in *most* cases, still there are cases wherein *C* obtains but she does not know that *C* obtains. The following argument intends to show such a case exists.

Let t_0, t_1, ... t_n be a series of time slices at one millisecond intervals from dawn to noon. Let α_0, α_1, ..., α_n be cases corresponding to the above series of time slices. Since the story tells that the temperature rises slowly and that both α_i and α_{i+1} last only one millisecond, for every i, α_i and α_{i+1} are similar to each other. Now, suppose the protagonist knows *C* obtains in α_i; according to safety requirement of knowledge, *C* obtains in α_{i+1} as well. Thus, we have the following scheme

(1_i) If in α_i one knows that *C* obtains, then in α_{i+1} *C* obtains.

Suppose the condition that one feels cold is luminous, for every possible case α, whenever one feels cold, one knows that one feels cold. Thus, we have the following scheme

(2_i) If in α_i one feels cold, then in α_i one knows that one feels cold.

Suppose

(3_i) In α_i one feels cold.

By modus ponens, (2_i) and (3_i) we have

(4_i) In α_i one knows that one feels cold.

By modus ponens, (1_i) and (4_i) we have

(3_{i+1}) In α_{i+1} one feels cold.

Now, (3_0) α_0 one feels cold is true by description of the story, since one felt freezing in dawn. By repeating the above argument, we have (3_1), (3_2)..., and finally

(3_n) in α_n one feels cold which is obviously false by description of the story, since one feels hot in noon. There must be a premise (or premises) be false in (1_0), (1_1), ..., (1_n), (2_0), (2_1), ..., (2_n), (3_0). Now, every instance of scheme (1_i) is justified by safety requirement of knowledge, and (3_0) is given by description of the story; thus, by R.A.A there is at least one instance of (2_i) fails; therefore,

there is some case(s) in which *C* obtains but one does not know that *C* obtains. The condition that one knows one feels cold is *not* luminous.

By an argument in the similar pattern, Williamson argues that KK principle fails. Consider the following story.

> 'Looking out of his window, Mr Magoo can see a tree some distance off. He wonders how tall it is. Evidently, he cannot tell to the nearest inch just by looking. His eyesight and ability to judge heights are nothing like that good. Since he has no other source of relevant information at the time, he does not know how tall the tree is to the nearest inch. For no natural number *i* does he know that the tree is *i* inches tall, that is, more than *i* - O.5 and not more than *i* + O.5 inches tall. Nevertheless, by looking he has gained some knowledge. He knows that the tree is not 60 or 6,000 inches tall. In fact, the tree is 666 inches tall, but he does not know that. For all he knows, it is 665 or 667 inches tall. For many natural numbers *i*, he does not know that the tree is not *i* inches tall. More precisely, for many natural numbers *i*, he does not know the proposition expressed by the result of replacing '*i*' in 'The tree is not *i* inches tall' by a numeral designating *i*.' (Williamson, 2000, p.114)

Consider a case (α) wherein the tree is *i* + 1 inches. Obviously, case α is similar to a case wherein the tree is *i* inches tall. (If a reader has confidence that the difference in one inch is enough to make two cases *themselves* dissimilar. Pick another number as you like, say one milli-inch, that does not have any effect on the following argument.) Since the case wherein the tree is *i* + 1 inches is similar to the case wherein the tree is *i* inches tall, by safety requirement of knowledge, Mr Magoo does *not* know that the tree is *not i* inches tall in the case wherein the tree is *i* + 1 inches tall. Accordingly, if the tree is *i* + 1 inches tall, Mr Magoo does not know that the tree is *not i* inches tall. By contraposition, Mr Magoo knows that the tree is not *i* inches tall, then the tree is not *i* + 1 inches

tall. Suppose Mr Magoo has basic self-reflection ability on his cognitive limits, so that he knows this fact. Thus, we have the following scheme.

(1_i) Magoo knows that (if he knows that the tree is not i inches tall, then the tree is not $i + 1$ inches tall).

Suppose, for the sake of reductio ad absurdum, that the condition that one knows p is luminous: if one knows p, then one is in a position to know that one knows p. Further, we assume that for each proposition p pertinent to the argument, Mr Magoo has considered whether he knows p. Consequently, if he is in a position to know that he knows p, he *does* know that he knows p. Thus, the following proposition holds:

(KK) For any pertinent proposition p, if Mr Magoo knows p then he knows that he knows p.

We may legitimately assume that Mr Magoo has been reflecting on the height of the tree and his knowledge of it so that he has drawn all the pertinent conclusions about its height that follows deductively from what he knows. Let us consider a time at which this process is complete. We can therefore assume:

(C) If p and all members of the set X are pertinent propositions, p is a logical consequence of X, and Mr Magoo knows each member of X, then he knows p.

Notice that (C) is *not* the universal epistemic closure principle which claims that for *every p* and *every* set of propositions X, if p is a logical consequence of X, and one knows each member of X, then one knows p. (C) is just concerning every *pertinent* proposition about the height of the tree.

By (KK), we can infer (3_i) from (2_i):

(2_i) Mr Magoo knows that the tree is not i inches tall.

(3_i) Mr Magoo knows that he knows that the tree is not i inches tall.

Now, let q be the proposition that the tree is $i + 1$ inches tall. $\sim q$ is a logical consequence (by Modus Ponen) of ((2_i) then $\sim q$) and (2_i). By (1_i), Mr Magoo knows ((2_i) then $\sim q$), and (3_i) just means that Mr Magoo knows (2_i); thus, (C), (1_i) and (3_i) entail that Mr Magoo knows $\sim q$; thus we have

(2_{i+1}) Mr Magoo knows that the tree is not $i + 1$ inches tall.

The foregoing inference shows that from (KK), (C) and (2_i) we can infer (2_{i+1}). Beginning with (2_0), by repeating this argument 666 times, , we reach the conclusion (2_{666}):

(2_0) Magoo knows that the tree is not 0 inches tall.

(2_{666}) Mr Magoo knows that the tree is not 666 inches tall.

Statement (2_{666}) is false, for the tree is 666 inches tall and knowledge is factive. Thus, given the premises (1_0), ... , (1_{665}), (2_0), (C), and (KK), we can deduce the false conclusion (2_{666}). Therefore, at least one of (1_0), ... , (1_{665}), (2_0), (C), and (KK) should be rejected. Scheme (I_i) is justified by safety requirement of knowledge. (2_0) is true by the story. Consequently, either (C) or (KK) is to be rejected. Since by hypothesis, Mr Magoo satisfies (C). Thus we reject (KK).

2.3 Criticism

In this section, I will examine some criticisms against the thesis Safety Requirement of Knowledge and the thesis Anti-Luminosity. These criticisms include: (i) Matthias Steup's criticism against Williamson's argument for the thesis Anti-Luminosity. ; (ii) challenge of Ram Neta and Guy Rohrbaugh against the thesis SRK by some putative counter examples; (iii) criticism of Anthony Brueckner and M. Oreste Flocco against the thesis SRK by putative counter examples; (iv) P. X. Monaghan's criticism against the thesis SRK. (v) Goldman's doubt whether the thesis SRK has any advantage over his own thesis RA.

Matthias Steup claims that Williamson's argument for the thesis Anti-Luminosity is begging the question. This criticism rises from one sentence in Williamson's story. The sentence is:

(NAC) Suppose that one's feelings of heat and old change so slowly during this process that one is not aware of any change in them over one millisecond.

Steup takes (NAC) as saying that two different mental conditions obtain in one millisecond interval and one doesn't aware that (one condition is feeling cold, another is feeling *less* cold).

> During the dawn–noon interval, one continuously undergoes changes of feeling less cold than a moment before. Williamson assumes that, for one-millisecond intervals, one is not aware of these changes. (Steup, 2009, 220)

If (NAC) *did* mean that, then Williamson obviously begs the question against Luminosity friends. However, it seems to me that (NAC) should *not* be so interpreted. Notice that in the whole story and argument for the thesis Anti-Luminosity, Williamson talks about only one condition, i.e. one feels cold. Although Williamson did *say* that one's feelings of heat and old change so slowly during this process, he only means that *the difference between* cases α_i and α_{i+1} can be so tiny that one cannot notice. In this interpretation, Williamson didn't beg the question.

Anthony Brueckner and M. Oreste Flocco presents their criticisms against Luminosity argument too. They targets on the scheme that one knows that one feels cold in a case α_i only if one feels cold in the case α_{i+1}. As I mentioned in section 2.2, Williamson's justification of the scheme depends on the thesis *Safety Requirement of Knowledge* (SRK). Brueckner and Flocco well observes that; therefore they attempt to attack the thesis SRK to undermine the scheme by the following example. The example goes as followings.

> Suppose that S is staring at a dead parrot for five hours and correctly believes that he sees a dead parrot throughout this interval. At the time t at which the interval ends, S sees the dead parrot and then blinks. One millisecond later, at t + 1, S opens his eyes and sees a dead-parrot-hologram. At t + 1, S mistakenly believes P (= S sees a dead parrot). Let us assume that prior to t + 1, the Deception Squad had been completely unable to produce any holograms. The hologram-producer finally goes briefly on-line at t + 1, and it is linked to a hologram-placer that randomly places holograms. It just so happens that the Squad's first and only success is a dead-parrot-hologram that winds up being placed before S at t + 1, unbeknownst to the Squad

> (who were trying to produce a live-chihuahua-hologram). So prior to t + 1, S was not at any time hanging fire on, or in any sense in imminent danger of, being deceived by means of holograms.

Obviously, S sees that a dead parrot (lies there) before *t* + 1. Williamson would agree with that. Surprisingly, they claims that one does *not* reliably believe that a dead parrot (lies there) in the case at *t*.

> 'There seems to be no reason to say, following the reasoning behind (R), that at t, S did not know P, because his confidence regarding P could not have been reliably based (in virtue of his passing from correctly believing P at t to mistakenly believing P at t + 1)' (p.289)

By '(R)', Brueckner and Fiocco mean the thesis SRK. It seems to me the cause for Brueckner and Fiocco claiming this is that the case at *t* and the case at *t* + 1 *happened closely*. However, the case at *t* + 1 is never similar to the case at *t*, simply because there is a dead parrot in the case at *t* but there is *not* in the case at *t* + 1. Recall that the concept *case* involves an important component, that is the environment. Now, obviously, the case at *t* and at *t* + 1 are *distinctively different*. One falsely believes that the dead parrot lies there in the case at *t* + 1 would never make one's belief in the case at *t* not safe, since these two cases are sufficiently different. It is not necessary that what happen in the next millisecond is similar to the former millisecond; things could change dramatically. This story is never a counter-example against the thesis SRK.

Neta and Rohrbaugh criticize the thesis SRK by the following two examples.

> I am drinking a glass of water which I have just poured from the bottle. Standing next to me is a happy person who has just won the lottery. Had this person lost the lottery, she would have maliciously polluted my water with a tasteless, odorless, colorless toxin. But since she won the lottery, she does no such thing. Nonetheless, she *almost* lost the lottery. Now, I drink the

> pure, unadulterated water and judge, truly and knowingly, that I am drinking pure, unadulterated water. But the toxin would not have flavored the water, and so had the toxin gone in, I would still have believed falsely that I was drinking pure, unadulterated water . . . Despite the falsity of my belief in the nearby possibility, it seems that, in the actual case, I know that I am drinking pure, unadulterated water.
>
> I am participating in a psychological experiment, in which I am to report the number of flashes I recall being shown. Before being shown the stimuli, I consume a glass of liquid at the request of the experimenter. Unbeknownst to either of us, I have been randomly assigned to the control group, and the glass contains ordinary orange juice. Other experimental groups receive juice mixed with one of a variety of chemicals which hinder the functioning of memory without a detectable phenomenological difference. I am shown seven flashes and judge, truly and knowingly, that I have been shown seven flashes. Had I been a member of one of the experimental groups to which I was almost assigned, I would have been shown only six flashes but still believed that I had been shown seven flashes due to the effects of the drug. It seems that in the actual case I know that the number of flashes is seven despite the envisaged possibility of my being wrong. And yet these possibilities are as similar in other respects as they would have to be for the experiment to be well designed and properly executed. (Neta and Rohrbaugh, 2004, pp.399-400)

Neta and Rohrbaugh commit to the same fallacy as Brueckner and Fiocco did. In the actual case, one's drink is *not* poisoned. Even though the drink was poisoned in another case, this case is

sufficiently different from the actual case, simply because the external states of these two cases are distinctly different from each other.

In section 2.1, I showed Williamson's argument for the thesis SRK. SRK claims that *if* one *knows p* in a case then *p* is true in every similar case. *p* is true in every similar case because one *knows p* in one's case. P. X. Monaghan totally misses this point. He says

> It simply does not follow that if at t_{i+1} one is almost as confident that one feels cold as one was at t_i, then at t_{i+1} one feels cold. Williamson is correct to point out that one's confidence that one feels cold at t_i and what ever confidence that one has that one feels cold at t_{i+1} have a similar basis. But, since they do not have the same basis, it leaves open the possibility that the transition from t_i to t_{i+1} is the transition from the last case in which one knows that one feels cold to the first case in which one no longer feels cold. (Monaghan, 2008, pp.626-627)

Monaghan well observed that one's base in t_i is slightly different from one's base in t_{i+1}; therefore it is possible that one feels cold in t_i but does *not* in t_{i+1}. Williamson would never reject that. But if one *knows* one feels cold in t_i, then one must feels cold in t_{i+1}. Williamson *never* means that since the both cases are *similar* to each other *so that* if one feels cold in t_i then one feels cold in t_{i+1}, but if one *knows* one feels cold in t_i then one feels cold in t_{i+1}. I have no idea how Monaghan can miss this obvious (and also important) point.

Goldman does not notice a crucial difference between the thesis SRK and his own thesis (RA) which claims that if there is a relevant possible state of affairs wherein *p* is false and which is indistinguishable from one's actual state of affairs, then one fails to know that p. Thus he doubts that why we should adopt the thesis SRK but not his thesis.

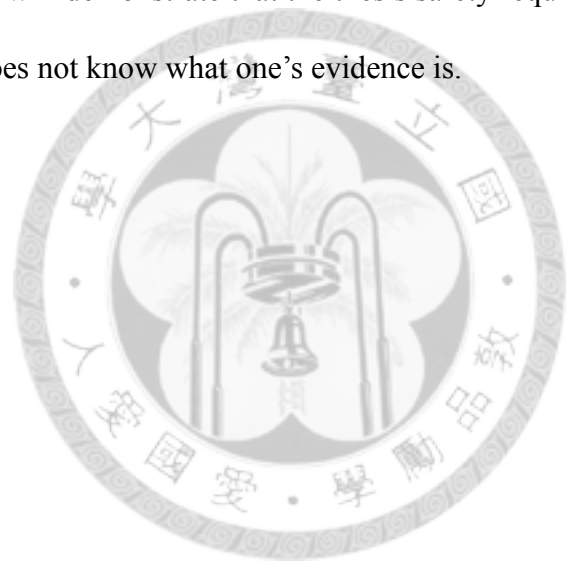
> So why not opt for (my version of) RA theory with its internal individuation of bases, rather than Williamson's safety theory? (Goldman, 2009, p.83)

As I have mentioned, the crucial difference between the thesis SRK and the thesis RA is that SRK appeals to the *case* wherein one knows *p* in explaining the fact that one knows *p* entails one reliably believes *p.* Since one's base in one's actual case is closed to one's base in similar case, that is why the similar case is qualified to be a tester in examination of reliability of one's belief in one's actual case. There is no guarantee that a case wherein *p* is false can be a tester in examination of reliability of one's belief *p* in one's actual case, since the case might be distinctively different from one's actual case so that it does not concern with the question whether one reliably believes *p* in one's actual case. Therefore, in the thesis SRK, only a similar case qualifies as a tester in the examination of the reliability of one's belief *p*. Consequently, the thesis SRK claims that one knows *p* in a case only if *p* is true in *every similar case*. Goldman can adopt RA because he takes the source of reliability lies in one's cognitive mechanism. Since the source of reliability lies in one's cognitive mechanism, one can adopt a possible relevant state of affairs to examine the reliability of one's cognitive mechanism. Even a possible relevant state of affairs wherein *p* is false is guaranteed to be suitable as a tester in the examination of reliability of one's belief *p*, since the reliability of one's belief hinges on one's cognitive mechanism, it does not concern with any external state (possible relevant state of affairs). Therefore, Goldman can adopt RA as an explanation of the fact that one knows *p* entails one reliably believing *p*. In summary, for Goldman, the reliability of one's belief hinges on the fact that one has a reliable cognitive mechanism, while for Williamson, the reliability of one's belief hinges on the case which one is in. Thus, Goldman appeals to the thesis RA to explain the fact that one knows *p* entails one reliably believing *p*, while Williamson appeals to the thesis SRK to explain the same fact.

2.4 Conclusion

The thesis Primeness exerts great impact on the concept *reliably believes*. It indicates that if the entailment relationship between one knows *p* and one reliably believes *p* holds, this entailment relationship should be explained by the *case* wherein one knows *p*. Since the *case* wherein one knows *p* should be able to explain this entailment relationship, similar cases are called for to indicate that one is reliably believing *p*. This leads to the result the thesis safety requirement of knowledge. The thesis Safety Requirement of Knowledge leads to two immediate consequences, they are the thesis Anti-Luminosity and the thesis Anti-KK Principle.

In the next chapter, I will demonstrate that the thesis safety requirement of knowledge entails that in some cases, one's does not know what one's evidence is.



Chapter 3

Luminosity of Evidence

By the thesis Primeness, the obtaining of the condition that one knows *p* hinges on the case which one is. We can say that the base on which one knows *p* is the case which one is in. Whether one knows *p* depends on which case one is in. Whenever one is in a case wherein the condition that one knows *p* obtains, then one knows *p*; whenever one is in a case wherein the condition that one knows *p* fails to obtain, then one does *not* know *p*. Because one knows *p* only if one has suitable *evidence*, the base on which one's *evidence* has π (π is a piece of evidence) also should be the *case* which one is in. In other words, one's evidence hinges on the case which one is in.

In chapter 2, I showed that the argument for the thesis Anti-KK Principle. It is obvious that this argument depends on the thesis Safety Requirement of Knowledge. Since one's evidence also hinges on the case which one is in, a similar argument can be constructed to show that there is a case wherein one's evidence has π (or lacks π), but one does *not* know that one's evidence has π (or lacks π), where π is a piece of evidence. Thus, one's evidence is not luminous. In this chapter, I will show Williamson's argument for the thesis Anti-Luminosity of Evidence, i.e., there is a case wherein one's evidence has (lacks) π but one does *not* know that one's evidence has (lacks) π.

A rational agent should respect her evidence. Accordingly, an rational agent should be able to know her evidence, otherwise she cannot be rational. A. J. Ayer says,

> A rational man is one who makes a proper use of reason: and this implies, among other things, that he correctly estimates the strength of evidence.[16]
> (Ayer, 1973, p.3)

[16] Ayer, A. J. 1972. *Probability and Evidence*. The MacMillan LTD.

Meanwhile, W. V. Quine and Ullian say,

> Insofar as we are rational in our beliefs, the intensity of belief will tend to correspond to the firmness of the available evidence. Insofar as we are rational, we will drop a belief when we have tried in vain to find evidence for it. (Quine and Ullian, 1978, p.10)[17]

An rational agent is in a position to know her evidence. But, is one *always* in a position to know her evidence? *Most of the times*, one knows one's evidence. However, this does not entail that one is *always* in a position to know one's evidence.

Williamson calls a case *the good case* wherein one knows *p*; *the bad case* wherein *p* is false and one *believes* that one knows *p*. By the thesis Primeness, the base on which one knows *p* is the case which one is in. Incidentally, one knows *p* only if one has suitable evidence. Since one knows *p* in the good case but does *not* know *p* in the bad case (*p* is false in bad case), one's evidence in the good case must be different from one's evidence in the bad case. Thus, for Williamson, one's evidence in the good case is different from in the bad case.

For a sceptic, however, one's evidence in the good case is the same as in the bad case. Their reasoning is quite simple. If one's evidence in the good case is different from in the bad case, then one could tell that one does not know *p* in the bad case, since one's evidence is in the bad case is different from the good case. In fact, one is in no position to tell one does not know *p* in the bad case (if one was able to tell that one does not know *p*, then one would *not* believe one knows *p*, so that one would not in the bad case); therefore, one's evidence must be the same in the good case and in the bad case. In this reasoning, however, the sceptic presupposes implicitly that one is *always* in a position to know one's evidence (one's evidence is luminous). Even in the bad case, one is in a position to know one's evidence. In section 3.1, I will show Williamson's formulation of the sceptic

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[17] Quine, W. V and Ullian, J. S. 1978. *The Web of Beliefs.*

argument. By the formulation, one will clearly see that the sceptic presupposes one's evidence is luminous.

The claim that one's evidence is the same in the good case and in the bad case is critical in many sceptical challenges. For example, Descartes' dream argument wherein the sceptic claims that one's evidence is the same in dreaming case and in good case. If this claim is ill-grounded, dream argument fails automatically. Since this claim presupposes that one's evidence is luminous, demonstration of one's evidence being *not* luminous disarms many sceptical challenges. In section 3.3, I will examine Anthony Brueckner's criticism which claims that Williamson's argument *based* on E = K. One will see that this claim is totally ungrounded.

3.1 Sameness of Evidence in different cases

Sceptic notoriously claims that one's evidence is the same in the good case and in the bad case. In this section, I will demonstrate Williamson's argument illustrating that this claim presupposes one's evidence is luminous. What we concerning is *one's evidence*; thus it is natural to think that if π is a piece of one's evidence, one's evidence *has* π, in this sense one's evidence is a whole body. Whether there is any objective evidence which is *not* included in anyone's evidence is not our concern here. In order to know what one's evidence is, one must be in a position to identify every appropriate property of one's evidence. In chapter 1, I mention that one knows *p* entails that one grasps *p*. If one does not grasp the proposition describing π then one does not know one's evidence has π. For the sake of the argument, we assume that for every appropriate property π of one's evidence, one has suitable description of π. Also, we assume one is in the ideal situation so that one is in a position to know that one's evidence has π then one knows that one's evidence has π. Thus we have

(1) For any appropriate property π, in any case in which one's evidence has π, one knows that one's evidence has π.

Except the above assumption, a sceptic also needs to assume that in the bad case one can refer to one's evidence in the good case; otherwise she is not able to compare her evidence in the good case and in the bad case so that she is not able to claim that one has the same evidence in the good case and in the bad case. In fact, this assumption is legitimate if we take 'the good case' or 'the bad case' just as full description of one's evidence in the good case and in the bad case respectively. We have assumed that for every appropriate property π one has suitable description of π; thus the sceptic can legitimately assume that in the bad case one can refer to one's evidence in the good case. Obviously, the sceptic also needs the assumption that in every case one's evidence *lacks* π then there is a correspond appropriate property *not*-π so that one has a suitable description of *not*-π (the description of one's evidence in every case is closed under complementation). Thus we have

(2) For any appropriate property π, if in the good case one's evidence lacks π, then in the bad case one knows that in the good case one's evidence lacks π.

Not only sceptic, even opponent to sceptic agrees that in the bad case one cannot know that one is in the bad case. In the bad case, one's evidence cannot show that one is in the bad case. Thus we have

(3) It is consistent with what one knows in the bad case that one is in the good case.

By the above three premises, Williamson shows the sceptic argument for the claim that one has the same evidence in the good case and in the bad case. Now, assume

(4) In the bad case one's evidence has π.

For the sake of reductio ad absurdum, we further assume

(5) In the good case one's evidence lacks π.

By (1) and (4), we have

(6) in the bad case, one knows that in the bad case one's evidence has π.

By (2) and (5), we have

(7) in the bad case, one knows that in the good case one's evidence lacks π.

Now, if one knows that in the bad case one's evidence has π and that in the good case one's evidence lacks π, one should be able to deduce that one is not in the good case. By (6) and (7), one knows both; therefore one can deduce that one is not in the good case. In other words, what one knows in the bad case is inconsistent with what one knows in the good case; therefore we have

(8) it is inconsistent with what one knows in the bad case that one is in the good case.

Now, (8) is contradict to (3); by R.A.A., we reject (5) so that we have

(9) in the good case one's evidence has π.

We conditionalizes (9) on (4), thus we have

(10) in the bad case one's evidence has π then in the good case one's evidence has π.

By the assumptions (1), (2), (3) and that descriptions of one's evidence in every case is closed under complementation, we can construct an similar argument to show

(11) in the bad case one's evidence has not-π then in the good case one's evidence has not-π.

By (10) and (11), we have

(12) one's evidence in the good case has the same appropriate properties as one's evidence in the bad case.

(12) just says that one's evidence is the same in the good case and in the bad case.

The point of this argument is to makes the presupposition of the premise (1) explicit. This argument reveals that, in order to argue that one has the same evidence in the good case and in the bad case, the sceptic needs to presuppose that one is always in a position to know what one's evidence is. One might complain this argument is just Williamson's argument for (12), a sceptic may have another argument in mind which *does not* presuppose that one is always in a position to know one's evidence. But what would that be? If the sceptic does not presuppose that one is always in a position to know one's evidence, it seems to me that one even cannot compare one's evidence in the good case to one's evidence in the bad case. How can she then claim that one's evidence is

the same in both the bad case and the good case? If the sceptic did *not* presuppose that one's evidence is luminous, she is *not* in a position to claim that one's evidence is the same in both cases.

The claim that one's evidence is the same in the good case and in the bad case is crucial in many sceptical arguments (say, dream argument). If we can show that one's evidence is *not* luminous so that this claim is ill-grounded, we thus disarm many sceptical arguments. Williamson's argument for the thesis Anti-Luminosity of Evidence precisely shows that one's evidence is not luminous. In the next section, I will show this argument.

3.2 Williamson's argument against Luminosity of Evidence

In this section, I will show Williamson's argument for the thesis Anti-Luminosity of Evidence, which claims that there is a case wherein one's evidence has π and one does *not* know that one's evidence has π, where π is a piece of evidence. The argument involves a critical premise, i.e., it is consistent with what one knows in case α_i that one is in case α_{i+1}, where α_i and α_{i+1} are two similar cases. This premise is in fact a consequence of the thesis Safety Requirement of Knowledge which claims that one knows p in a case only if p is true in every similar case. In Chapter 2, I showed Williamson's argument for this thesis. I start to demonstrate Williamson's argument for the thesis Anti-Luminosity thesis. Consider the following story.

> Let t_0, t_1, ..., t_n be a long sequence of times at one-millisecond intervals. Imagine that one's experience very gradually changes from t_0 to t_n; for example, one watches the sun slowly rise. One loses exact track of time. One's evidence at the beginning of the process (pitch darkness is quite different from one's evidence at the end (bright daylight).

Let α_0, α_1, ..., α_n be cases corresponding to t_0, t_1, ..., t_n. For the sake of reductio ad absurdum, we assume

(1) For any appropriate property π, in any case in which one's evidence has π, one knows that one's

evidence has π.

(1) is just the claim that one's evidence is luminous. Further, we take each case just as a description of one's evidence. Thus we have

(2_i) For any appropriate property π, if in α_{i-1} one's evidence lacks π, then in α_i one knows that in α_{i-1} one's evidence lacks π.

The justification of every instance of (2_i) is just like (2) in the sceptic argument. Since by the description of the story, one's evidence are changes *gradually* so that each case α_i is similar to case α_{i-1}. By the thesis Safety Requirement of Knowledge, one knows *p* in α_i only if *p* is true in α_{i-1}. Thus whatever proposition *p* one knows in current case, *p* is true in the case one millisecond ago. In other words, one cannot find any inconsistent with what one knows in current case that the case one millisecond ago. Thus we have

(3_i) It is consistent with what one knows in α_i that one is in α_{i+1}.

Now assume

(4_i) in α_i one's evidence has π.

Further, for the sake of reductio ad absurdum, we assume

(5_i) In α_{i-1} one's evidence lacks π.

By premises (1) and (4_i), we have

(6_i) In α_i one knows that one's evidence has π.

By (2_i) and (5_i), we have

(7_i) In α_i one knows that in α_{i-1} one's evidence lacks π.

If one knows that one's evidence has π α_i and that one's evidence lacks π in α_{i-1}, one can infer that some evidence in α_i is lacking in α_{i-1}. By (6_i) and (7_i), one knows both, so that we have

(8_i) it is inconsistent with what one knows in α_i that one is in α_{i-1}.

(8_i) is contradict with (3_i), thus by R.A.A. we reject (5_i) and have

(9_i) In α_{i-1} one's evidence has π.

Conditionalizing (9_i) on (4_i), we have

(10_i) in α_i one's evidence has π then in α_{i-1} one's evidence has π.

By the assumption of the description of one's evidence is closed under complementation, we can construct a similar argument to show

(11_i) in α_i one's evidence lacks π then in α_{i-1} one's evidence lacks π.

Finally, by (10_i) and (11_i) we have

(12_i) one's evidence in α_i has the same appropriate properties as one's evidence in α_{i-1}.

Repeating the above argument *n* times we have (12_1), (12_2), ..., (12_n). Since the relation 'has the same appropriate properties' is transitive, thus we have

(13) one's evidence in α_n has the same appropriate properties as one's evidence in α_0.

(13) is obviously false since the appropriate properties of one's evidence in α_n (bright daylight) are different from the appropriate properties of one's evidence in α_0 (pitch dark). Now, (13) is deduced from (1), (2_n), (2_{n-1}), ..., (2_0), (3_n), (3_{n-1}), ..., (3_0); since (2_n), (2_{n-1}), ..., (2_0), (3_n), (3_{n-1}), ..., (3_0) are true, by R.A.A., Williamson rejected (1). So that there is a case wherein one's evidence has π, but one does not know that one's evidence has π.

3.3 Criticism

In the argument for the thesis Anti-Luminosity of Evidence, Williamson only presupposes the thesis Safety Requirement of Knowledge, he does not presuppose any view of *one's evidence*. Specifically, he does *not* presuppose that one's evidence is one's knowledge (E = K). Quite on the opposite, Anthony Brueckner suggests that Williamson in the argument already presupposed that E = K. Brueckner discusses Williamson's mountain example in argument for E = K.

> Williamson discusses a pair of cases: S sees a mountain in normal circumstances and correctly believes that it is a certain shape, and S sees a

> mountain in unfavorable circumstances and is under the illusion that it is a certain shape (it is some other shape). What is S's evidence in each case? The evidence will consist of believed propositions, on Williamson's view. In this good case, S's evidence is the true proposition expressed by his utterance of 'It is that shape'. Williamson specifies this as the proposition that the mountain is that shape (call this M). But this proposition cannot be S's evidence in the pertinent bad case, since S mistakenly believes the proposition in the bad case. The proposition is false in the bad case, hence not known by S in the bad case, and hence (*in light of E=K*) not a candidate for being S's evidence in the bad case.[18] (Brueckner, 2005, p.440)

Brueckner well observes that one's evidence in the good case has that the mountain is that shape. But in the bad case, one's evidence has not. And this of course is a consequence of E = K[19] (or in Brueckner's words *in light of E = K*). Williamson should have no complain here. But following this passage, Brueckner says

> let us consider my belief of the proposition that my cup is red (call this C). Let us suppose that this is an instance of perceptual knowledge. .... My belief of C, we are assuming, is an instance of knowledge. Let us suppose that my belief of C is justified on the basis of evidence, which, on Williamson's view, will consist of one or more believed propositions. Which? In the mountain example, S's evidence in the good case consists of

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[18] Brueckner, A. 2005. 'Knowledge, Evidence, and Skepticism According to Williamson'. *Philosophy and Phenomenological Research*, Vol. 70, No. 2 (Mar., 2005), pp. 436-443.

[19] Williamson says: 'In unfavourable circumstances, one fails to gain perceptual knowledge, perhaps because things are not the way they appear to be. One does not know that things are that way, and E = K excludes the proposition that they are as evidence.' (Williamson, 2000, p.198.)

> the proposition that the mountain is that shape. Apparently, Williamson will maintain that in the present example, the proposition that my cup is red constitutes my evidence for my belief of C (supposing that that belief is indeed evidentially based). In order to function as my evidence, I must believe the evidential proposition in question. Further, Williamson may grant that that evidential proposition attains the status of evidence only because I am undergoing a visual experience of the red cup. So now we have arrived at the following position: my belief of C is justified in virtue of my belief of the evidential proposition that my cup is red. That is to say, my belief of the proposition that my cup is red is justified in virtue of my belief of the proposition that my cup is red! This is an unacceptable view of the structure of perceptual knowledge and justification. Further, insofar as Williamson's rejection of SEL is *based* on this view (see the earlier discussion of S's evidence in the mountain example), his main answer to the skeptic is vitiated. (Brueckner, 2005, pp.441-442)

By ‘SEL’ (Same Evidence Lemma), Brueckner means S has exactly the same evidence in the good case and in the bad case (Brueckner, 2005, p.438). Brueckner is absolutely right about C is S’s evidence, simply because in this example one knows C. Brueckner obviously does not accept that C is included in one’s evidence. Whether it is acceptable does not concern us here. The serious misunderstanding occurs in the last four lines, where Brueckner claims Williamson’s rejection of SEL is based on ‘this view’. By ‘this view’, Brueckner refers to the thesis E = K. Williamson rejects SEL by the thesis Anti-luminosity of evidence which is support by the argument showed in section 3.3 in which he does not presuppose E = K. I cannot see any hints what is the reason for Brueckner makes this claim. It is quite clear that Williamson does not presuppose the thesis E = K in the argument for the thesis Anti-Luminosity of Evidence.

3.4 Conclusion

Williamson shows that a sceptic presupposes that one's evidence is luminous. By the argument for thesis Anti-Luminosity of Evidence, he also shows that this presupposition is ill-grounded. In the bad case one's evidence has π but one is in no position to know that one's evidence has π. Even one *believes truly* that one's evidence has π in bad case, one still is in no position to know that. *The bad case* is *bad* because one does not *know* what one's evidence is.

Even though one is not in a position to know one's evidence in the bad case, one is still in a position to know one's evidence in the good case. By the thesis Primeness, the base on which one knows *p* is the *case* which one is in. Since one knows *p* entails that one has suitable evidence, the base on which one's evidence has π is the *case* which one is in. In the bad case, the situation is so bad, so that one is in no position to know one's evidence. Nevertheless, in the good case, the situation is good enough to help one knowing one's evidence, because one's base in the bad case is distinctively different from one's base in the good case.

Both one's knowledge and one's evidence are hinges on the case which one is in. In fact, one's evidence is one's knowledge, i.e., the thesis E = K. In the next chapter, I will show Williamson's argument for the thesis E = K.

Chapter 4

Knowledge Rule of Assertion

In Chapter 1, I showed Williamson's argument for the thesis Primeness, which claims that both an internal state and an external state offer contributions to the state of one knowing *p*, and these contributions cannot be treated separately, so that a *case* is called for to characterize these contributions. Thus, the obtaining of the condition that one knows *p* hinges on the case which one is in. It is possible that there is a case wherein the situation is not that good so that one is not in a position to know one's cognitive states. Therefore, there is a case wherein one knows *p* but one does not know that one knows *p*. In Chapter 2, I have showed Williamson's argument for the existence of this *case*. If one knows *p* then one has suitable evidence. Since the obtaining of the condition that one knows *p* hinges on the case which one is in, one's evidence should also hinges on the case which one is in. This leads to the result that there is a case wherein one's evidence has π, but one does not know that one's evidence has π. In Chapter 3, I have demonstrated Williamson's argument for the existence of this case. From Williamson's point of view, the *case* which one is in dominates one's knowledge and one's evidence.

Intuitively, if knowledge is able to be communicated, the media should be an *assertion*. If this is true, then the following rule of assertion should holds: one must: assert *p* only if one knows *p*. This is the so-called knowledge rule of assertion. In this chapter, I will illustrate Williamson's argument for the thesis that the rule of assertion is knowledge rule (the thesis Knowledge Rule of Assertion). Since one must: assert *p* only if one knows *p*, one is warranted to assert *p* if and only if one knows *p*. Since the obtaining of the condition that one knows *p* hinges on the which one is in, we can claim that one knows *p* if and only if one is in a case wherein the condition that one knows *p* obtains. Thus, one is assert *p* only if one is in a case wherein the condition that one knows *p*

obtains. Incidentally, one must assert *p* only if one has suitable evidence, so that one is warranted to assert *p* if and only if one has suitable evidence. Thus, one has suitable evidence for *p* if and only if one is in a case wherein the condition that one knows *p* obtains. In other words, one has evidence for *p* if and only if one knows *p*, i.e., the thesis E = K. If the thesis Knowledge Rule of Assertion holds, then the thesis E = K holds.

Williamson could directly argue for the thesis Knowledge Rule of Assertion, and then get the immediate consequence that the thesis E = K. But he did not take this approach, but argues for the thesis E = K, and then shows that one must assert *p* only if one's evidence includes *p*. Thus, he argues indirectly for the thesis Knowledge Rule of Assertion. I will illuminate both his arguments for the thesis E = K and the claim that one must assert *p* only if one's evidence includes *p*.

In section 4.2, I will show Williamson's argument for the claim that one must assert *p* only if one's evidence includes *p*. This claim is enough to show that one must: assert *p* only if one knows *p* provided the thesis E = K. To show the complete argument for the thesis Knowledge Rule of Assertion, I need also to show Williamson's argument for the thesis E = K. This is the burden of section 4.1. In Chapter 3, I illustrated Williamson's argument for the thesis Anti-Luminosity of Evidence which claims that there is a case wherein one's evidence has π but one does not know that one's evidence has π. One will see that thesis plays pivotal role in the argument for the thesis E = K. In section 4.3, I will discuss the criticisms of Frank Hindrik who claims that assertion is just expressing one's belief[20]. In section 4.4, I will discuss the thesis Anti-Luminosity of Assertibility which claims that there is a case wherein *p* is assertible but it is not assertible that *p* is assertible. Obviously, the thesis Knowledge Rule of Assertion and the thesis Anti-KK Principle entail that assertibility is not luminous. In fact, Williamson has an argument for the thesis Anti-Luminosity of Assertibility which is also in the pattern of arguments for the theses Anti-Luminosity, Anti-KK Principle, and Anti-Luminosity of Evidence. I will show this argument as well.

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[20] Hindriks, F. 2007. 'The Status of The Knowledge Account of Assertion', *Linguist Philos* (2007) 30: 393-406.

4.1 Williamson's argument for E = K

In this section, I will demonstrate Williamson's argument for the thesis E = K. Obviously, the following three propositions entail the thesis E = K.

(1) All evidence is propositional.

(2) All propositional evidence is knowledge.

(3) All knowledge is evidence.

Ergo, Williamson's task is to show these three propositions hold. Although one's evidence may have different functions, a major function is to provide reasons for one's belief. Williamson's arguments for propositions (1) - (3) are based on this observation.

Williamson's argument for the thesis E = K based on the observation that a major function is to provide reasons for one's belief. But this observation is too vague, to employ this observation as a premise, Williamson needs a more suitable characterization of it. Consider the relation *e* is evidence for *h* for S, where S is an agent, *h* a hypothesis. Intuitively, *e* provides a reason for S to believe *h* entails *e does favor* to *h*. Williamson interprets that *e* does favor to *h* as that *e* raises the *probability* of *h*, in symbols $P(h \mid e) \geq P(h)$, where $P(e)$ is a real number greater than 0 and smaller than 1. However, *just* being capable of raising probability of *h* is not enough to be one's evidence for *h*. For example, although the proposition that it is raining raises the probability of the proposition that the ground is wet, the former proposition is still *not* enough to be one's evidence for the latter proposition, simply because one's evidence might *not* include the proposition that it is raining. To be one's evidence for the ground is wet, *one's evidence needs includes the proposition that it is raining*. Combining these two ideas we have

> (EV) *e* is evidence for *h* for S if and only if S's evidence includes *e* and $P(h \mid e) > h$.

A consequence of EV is that for every *e*, *e* is evidence for itself. Consider, if one's evidence includes *e* for *h*, then P (*e*) cannot be 1 or 0. On the one hand, if P (*e*) = 1, then it cannot be evidence for *h*, simply because P (*h* | *e*) = P (*h*). On the other hand, if P (*e*) = 0, then P (*h* | *e*) is undefined, so that *e* cannot raise any probability of any hypothesis. For any *e*, the value of P (*e*), 0 < P (*e*) < 1, thus we have P (*e* | *e*) = 1 ≥ P (*e*). Therefore for any *e*, *e* is evidence for itself.

Should we revise EV to eliminate this counter-intuitive consequence? Could we add one more condition on the right hand side that *e* is *not h*? The revised version of EV would look like the following.

> EV^R *e* is evidence for *h* for S if and only if S's evidence includes *e*, P (*h* | *e*) > *h*, and *e* is not *h*.

EV^R is acceptable only if for any acceptable *h* there is always *e*, which is different from *h*, such that P (*h* | *e*) > *h*. However, for some beliefs, the *only* evidence for it is just itself. For example, a dentist asks whether you have toothache and you answer yes. Intuitively, you have evidence for the proposition that you have toothache. What is the evidence for the believe you have toothache? Intuitively, the *only* evidence you have is exactly that you have toothache. One might suggest that the evidence should be *one's sensation*. But sensation is *not* propositional; thus it cannot be evidence for the proposition that you have toothache. I will show Williamson's argument for the proposition that all evidence is propositional. If one can *not* employ the proposition that one has toothache as evidence for that one has toothache, then one would run out of resource to know that one has toothache. Of course, in ordinary discourse, one should not cite *p* as evidence of *p*. We practically do not employ *p* as evidence of *p* itself, *not* because it is impermissible but because usually *p* is *not included* in one's evidence. That is why *usually* one should not use *p* as evidence for *p* itself. But once *e* is included in one's evidence, one is authorized to employ it as evidence for every belief, including itself. In the dentist example, however, your evidence includes the proposition that you have toothache; thus it can be your evidence for the believe you have

toothache. Besides, if one cannot cite *p* as evidence for *p* itself whenever challenge arises, then one may easily run out of resource. Let *p* be that one thinks rationally. If *p* is challenged and one cannot cite *p* as evidence for *p* itself, then one can do nothing when facing such a challenged. In some cases, one's evidence *e* can legitimately be one's evidence for itself. Therefore, we should not reject EV for this pseudo-reason. Unless there is other reasonable challenge, Williamson legitimately assumes EV.

I start showing Williamson's argument for the thesis E = K with (1), i.e., *all evidence is propositional*. The strategy Williamson adopted is to pick out theoretical functions central to the ordinary concept *one's evidence for proposition p*. I showed that EV based on two ideas of one's evidence (*e*) for hypothesis (*h*): firstly, one's evidence includes *e*; secondly, *e* raises the probability of *h*. Now, the second idea is crucial to show that all evidence is propositional.

Suppose one's evidence has *e*. Practically, we choose the available hypothesis that has the highest probability based on *e*; this practice is the so-called *best explanation*. Obviously, *h* must be propositional, because the probability of *h* just means how probable *h* is *true* and *only* proposition is capable of being true. Therefore if *h* were *not* propositional, then it could not be true so that it has *no* probability. According to EV, that *e* raises the probability of *h* means that $P(h \mid e) > P(h)$, where $P(h \mid e) = P(h \wedge e) / P(e)$. Obviously that *e* itself has probability as well as *h*. *Only* those having probability could ever raise probabilities of others; thus evidence has its probability as well. Again, *only* proposition has probability; hence evidence is propositional. This simple argument shows that all evidence is propositional. Another justification for all evidence is proposition is that hypothesis could be *inconsistent* to evidence. Obviously, only propositions could be inconsistent to each others.

Our practice of providing causal explanation supports the claim that all evidence is propositional as well, because causal explanation is in the form "*p* because *q*" where *p* and *q* are always in propositional form. Because the propositional form of evidence is often sealed, one might overlook that all evidence is propositional. For example, one might says '*that* sensation in my throat

causes by *cold*'. Actually, what one saying is that '*that* I have that sensation in my throat causes by *that* I got cold'. In this unraveled form, we clearly see that both the explanandum and explanans are propositional. In a history class, a teacher might ask a student to explain World War I. But what she actually asking is an explanation of the fact *that* World War I happened. If she were asking the student to explain *that* World War I, there would be indefinitely many possible answers, because that question had indefinitely many interpretations (why World War I happens in 1914, why World War I erupted in Europe, etc). What needs explanation is a proposition. In a courtroom, a lawyer might claim *that* the finger print on the knife is a strong evidence proving that an accused commits to the murder. However, the lawyer just means *that* the finger print is on the knife. A finger print *itself* has indefinitely interpretations (the finger print is of a left thumb, the finger print is intact, to mention a few). Again, what needs an explanation is *that* the finger print is on the knife, a proposition. This finished Williamson's justifications for the proposition that all evidence is propositional.

I turn to premise (2), i.e., all propositional evidence is knowledge. The strategy Williamson adopted is showing that if one's epistemic status of p is short of knowing p, then p is not included in one's evidence. Williamson assumes that there is *no* any relevant epistemic status concerning evidence which locates between knowing p and justified truly believing p. Therefore if Williamson can show that a justified true belief p is not enough to be one's evidence, then all propositional evidence is knowledge. Consider the following story.

> Suppose that balls are drawn from a bag, with replacement. In order to avoid issues about the present truth-values of statements about the future, assume that someone else has already made the draws; I watch them on film. For a suitable number n, the following situation can arise. I have seen draws 1 to n; each was red (produced a red ball). I have not yet seen draw $n + 1$. I reason probabilistically, and form a justified belief that draw $n + 1$ was red

> too. My belief is in fact true. But I do not know that draw n + 1 was red.
>
> (Timothy Williamson, 2000, p.200)

Now, consider two hypotheses h and h*

h: Draws 1 to n were red; draw n + 1 was black.

h*: Draw 1 was black; draws 2 to n + 1 were red.

Suppose n is large enough, say 100000; as a result, one is justified in believing draw n + 1 is also red. Now, draw n + 1 is in fact red. If the status of justified true believing p was enough to include p in one's evidence, then the proposition that draw n + 1 is red was enough to included in one's evidence. If it was the case, then one's evidence should include Draws 1 to n + 1 were red, so that both hypothesis h and h* would be inconsistent with one's evidence. h is inconsistent with one's evidence since draw n + 1 was black, while h* is inconsistent with one's evidence since draw 1 was black. However, *only* h* is inconsistent with one's evidence, meanwhile h maintains consistent with one's evidence. This story shows that the status of justified truly believing p is not enough to include p in one's evidence. If the status of justified true believing p is the closest relevant epistemic status short of knowing p, then this argument shows that all propositional evidence is knowledge.

I turn to the last premise, i.e., all knowledge is evidence. Williamson adopts a heuristic argument for this premise. The first putative challenge is that even though one knows both p and q, it might happen that p is one's evidence for q while q is *not* one's evidence for p. For example, one knows both that (p) Henry V died in 1422 and that (q) the assertion 'Henry V died n 1422' is printed in various books. One's knowledge that Henry V died in 1422 is inter-connected to one's knowledge that 'Henry V died in 1422' is written in various book. Such inter-connection seemingly missed in one's evidence, because one might claim that Henry V died in 1422 is one's evidence for the assertion 'Henry V died in 1422' is written in various books, but *not* vice versa. Thus, one's knowledge might not be one's evidence, since some evidential inter-connections occurred in one's knowledge are missing in one's evidence. In Williamson words, 'the concern is rather that if all

one's knowledge is treated as a single body of evidence, its internal evidential interconnections will be obliterated, and therefore that such an account would falsify the nature of our knowledge.' (Timothy Williamson, 2000, p.204) Although it is tempting to object that one's knowledge is one's evidence from this observation, but this objection is wanting. To see why, observe that, by EV, for every x and y, if both x any y are included in one's evidence, x is evidence for y if and only if y is evidence for x; there is a evidential interconnection between one's evidence corresponding the evidential interconnection between one's knowledge. The evidential connection can be showed by the following argument. Suppose both x and y is included in one's evidence. $P(x \mid y) = P(x \wedge y) / P(y)$, and $P(y \mid x) = P(x \wedge y) / P(x)$. $P(x \mid y) > P(x)$ if and only if $P(x \wedge y) > P(x)\ P(y)$, also $P(y \mid x) > P(y)$ if and only if $P(x \wedge y) > P(x)\ P(y)$. Therefore, $P(x \mid y) > P(x)$ if and only if $P(y \mid x) > P(y)$. In other words, x is evidence for y if and only y is evidence for x. This shows there is evidential interconnection between one's evidences.

In Chapter 2, I showed Williamson's argument for the thesis Anti-KK Principle which claims that there is a case wherein one knows p but one does not know that one knows p. This leads to the consequence that one's knowledge would never be certain, since there is just such a case wherein one knows p but one does not know that one knows p. If one's evidence is one's knowledge, that means one's evidence would neither be certain. This result starkly contrasts to the conception of evidence in standard Bayesian probability theory, because one's evidence will never lose in this theory, so that once e is one's evidence, one can be certain about e. The standard way of accommodating hypothesis (h) to new evidence (e) is conditionalizing on the old probability of h to old probability of e: $P_{new}(h) = P_{old}(h \mid e)$. In particular, $P_{new}(e) = P_{old}(e \mid e) = 1$. Once e obtains probability 1, this status remains no matter how many new evidence comes in; the following simple argument shows this. Let e_1 be any new evidence, and $P_{old}(e) = 1$. Since $P_{old}(e) = 1$, $P_{old}(e \wedge e_1) = P_{old}(e_1)$. $P_{new}(e) = P_{old}(e \mid e_1) = P_{old}((e \wedge e_1) \mid e_1) = P_{old}(e_1 \mid e_1) = 1$.

Has one's evidence this status? Many ordinary examples show that most evidence have *not*. For example, suppose I put one black and one red ball in the bag. I have evidence that there are one red ball in the bag, since I remember that I put the red ball in the bag. I make 10000 draws after, and it turns out that each draws is black. If there is one red ball in the bag, the probability of making 10000 black draws in a row is $\frac{1}{2}^{10000}$. I *had* evidence that there is one red ball in the bag before the draws. However, if I am rational, I should drop the evidence after seeing 10000 black draws. The moral of this story is showing one's old evidence may be lost because one's new evidence lowers dramatically the probability of one's old evidence. In this situation, a rational agent should drop her old evidence. Even one has old evidence that there is a red ball inside the bag, this evidence would never be certain, since one might give it up later. One is not *certain* about one's evidence. One was unreasonable if one ignored new evidence. If one gives proper weight to the new evidence, one may drop one's old evidence *e* even though *e was* one's evidence. The above example just shows this point. One needs not be certain about *e* in order to include *e* in one's evidence. One's evidence includes *e now*, however, it is still possible that one may be doubt whether one's evidence includes *e* in cases which one is in *later*; however, doubt in such cases would *not* make one's evidence lacking *e now*. One loses old evidence and gains new evidence.

A sceptic should not rush to claim that if one might doubt that (*e*) there is a red ball in the bag *later*, then *e* is *not* included in one's evidence *now.* In the previous chapter, I show Williamson's argument for the thesis Anti-Luminosity of Evidence. A moral of this argument is showing that one's evidence may be lost gradually, so that one might not in any position to know one's evidence in some cases. One's evidence may be lost gradually, simply because *cases* may change gradually and *one's evidence hinges on the case which one is in*. There might be some cases wherein the situation is so bad, so that one cannot know one's evidence. In the good case, since the situation is good enough, so that one knows that one's evidence includes that there is a red ball in the bag. After

all, one's base in the good case is distinctively different from one's base in the bad case. The foregoing story just makes this point vividly. Since the case wherein one sees there is one red ball in the bag is totally different from the case in which 10000 black draws have happened, for Williamson, there is nothing surprise that one's evidence in the two cases are different from each other. A sceptic should not be rash to claim that if one *would* give up the proposition that there is one red ball in the bag then the proposition would not be one's evidence *even in the case* wherein one sees that there is one red ball in the bag.

Williamson showed that both of the two challenges above are wanting. Of course, there *might* be other challenges, but so far no threatening one has been proposed. It seems to me that Williamson has provided good reasons for the claim that all knowledge is evidence and for the thesis E = K. In next section, I will show Williamson's argument for the thesis Knowledge Rule of Assertion.

4.2 Knowledge rule of Assertion

This section shows Williamson's argument for the thesis Knowledge Rule of Assertion, i.e., one must: assert *p* only if one knows *p*. Before showing Williamson's argument, I would like to discuss the status of this rule, which is crucial to this argument.

Human has speech acts, say, query, greeting, warning, promise, command, conjecture, assertion, to mention a few. Every speech act is governed by *norm*. Most speech acts are governed by more than one norms. For example, query is governed by *be polite*, *be explicit*, *be relevant*, *be sincere*. As a speech act, assertion is also governed by many norms, say, *be true*, *be informative*, *be relevant*, *be sincere*, *be warranted*, *be well phrased*, *be polite*. The knowledge rule, i.e., one must: assert *p* only if one knows *p*, is just one norm among these norms of assertion.

Incidentally, some norms are shared by different speech acts. For example, the norm *be explicit* is shared by speech acts query, command, and assertion. However, to characterize a speech act, one needs *not* to show *every* norm of it, but *just* needs to show the norm(s) *distinguishing* it from other speech acts. Just like specifying rule(s) of *an* examination *E*, we *never* try to identify *all* rules of *E*. I seldom see any examination whose rule includes 'participant should not cheat'. This rule may need to be specified only if we were specifying the rules of *examination*. When we are specifying the rules of *E*, however, we need not specify the rule 'participant should not cheat' because *E* is already an examination. In order to characterize *E*, we only need to specify those rules which are *not* shared by other examinations. To tell who Henry V is, one never needs to tell *every* characters of him, but only the character distinguishing him from others, say, he is The King of England who is on his throne from 1413 to 1422. Assertion shares norms with other speech acts; thus to characterize assertion, we only need to specify those norm(s) which distinguishes assertion from other speech acts. Williamson calls the norm(s) distinguishing assertion from other speech acts *constitutive rule*(*s*) *of assertion*. If assertion is a speech act, it should have constitutive rule, which distinguishes it from other speech acts. Williamson presupposes that assertion is a speech act so that it has constitutive rule. For the sake of convenience, 'rule' refers to constitutive rule hereafter.

Constitutive rule has an important characteristic. That is *C* is constitutive rule of speech act *A* only if *C necessarily* govern *A*. Since *C* distinguishes *A* from other speech act, *C* govern *A* in *every situation.* In this sense, *C* necessarily governs *A*. Asking *why C* is governing *A* doesn't make any sense; just like asking *why* the rule participant must not cheat governs *examination* doesn't make any.

Other than presupposing that assertion has constitutive rule, Williamson also presupposes that assertion only has *one* rule. Obviously, the simpler a theory is, the better it is. In construction a theory of assertion, the fewer rules the theory involves, the simpler it is. If we can find one workable rule to characterize the speech art assertion, this characterization should be the best.

Under these two presuppositions, Williamson argues for the thesis Knowledge Rule of Assertion which claims: one must: assert *p* only if one knows *p*.

Truth rule is the first candidate for the rule of assertion. Truth rule claims: one must: assert *p* only if *p* is true. However, we use truth to appraise speech acts other than assertion. For example, *conjecture*, *guessing*. A *true* conjecture is better than a false conjecture. A true guessing is better than a false one. Truth is a norm of the speech acts of conjecture and guessing as well as assertion. Constitutive rule of assertion *only* governs assertion. Therefore truth rule could not be constitutive rule of assertion. This simple argument shows that truth rule is not constitutive rule of assertion.

Although truth rule is not constitutive rule of assertion, truth is still a norm of assertion. Other than assertion, truth is also a norm of conjecture, guess, and swear. Guess, conjecture, assertion, and swear all share another norm, i.e., *evidential norm*. However, the evidential standard of these speech acts are different from each others. This difference suggests that we can distinguish assert from other speech acts by its *unique* evidential standard. The following story shows that assertion has an extremely high evidential standard, i.e., one must: assert *p* only if the evidential probability of *p* is 1, i.e., the probability of *p* is 1 *based on one's evidence*. Consider the following story.

> 'Suppose that you have bought a ticket in a very large lottery. Only one ticket wins. Although the draw has been held, the result has not yet been announced. In fact, your ticket did not win, but I have no insider information to that effect. On the merely probabilistic grounds that your ticket was only one of very many, I assert to you flat-out 'Your ticket did not win', without telling you my grounds.' (Timothy Williamson, 2000, p.246)

Let *p* be 'Your ticket did not win'. *p* is true. Also, I believed *p*. Since *p* is highly probable on my evidence, I am justified in believing it. Although I am justified truly in believing that *p*, I am not yet warranted to assert it. This story shows that justified truly believing *p* is not enough to be warranted to assert *p*. Further more, it shows that assertion requires an extremely high evidential probability

standard; I am not warrant to assert *p* unless the probability of *p* base on one's evidence is 1. Observe that no matter how low is the winning probability of your ticket, I am still not warranted to assert *p*. This means that one is warranted to assert *p* only if *p* has probability of 1 based on one's evidence.

One may worry about that this consequence might induce sceptic consequence, since the probabilities of most our ordinary assertions based on one's evidence are seemingly lower than probability 1; however, this would happen only if one takes that evidential probability of *p* is 1 means that one is *certain* with *p*. However, one should not take the former as the latter. For Williamson, that one is certain with *p* means that one would *not* giving *p* no matter what would happen. In previous section, I mentioned that one may lose one's evidence. Evidential probability is based on one's evidence, thus *p* which has probability of 1 based on one's evidence *now* may drops to below 1 *later*. Consider Williamson's example. 'I toss a coin, see it land heads, put it back in my pocket and fall asleep; once I wake up I have forgotten how it landed.' (Timothy Williamson, 2000, p.219) Obviously, before I fell asleep, that the coin lands head is included in my evidence; therefore, according to EV, the evidential probability of that the coin lands head based on my evidence is 1 since the proposition is included in my evidence. After I fell asleep, that the coin lands head is no longer included in my evidence, since I have forgotten how it landed. According to EV, the evidential probability of that the coin lands head is 1/2 based on my evidence since the proposition is *no* longer included in my evidence. This example shows that one may lose evidence because one forgot, however, one may lose evidence by gaining new evidence as well. The example of drawing black balls in the previous section shows one lost evidence even one doesn't forget any relevant information. *When* I put the red ball in the bag, I saw the red ball; thus I had the evidence that there is a red ball in the bag. The evidential probability of that there is a red ball in the bag based on my evidence is 1 at that time. However, *after* 10000 drawings of black ball, I wonder whether I mis-remember or mis-seen that is a red ball. I no longer believe that there is a red ball in

the bag, according to E = K, the proposition is no longer included in my evidence, since one knows *p* entails one believes *p*. The evidential probability of the proposition drops below 1. One should not confuse that *p* having probability of 1 based on one's evidence with that one is *certain* with *p*, since one may lose one's evidence so that probability of *p* may drop below 1.

One is warranted to assert *p* only if the probability of *p* based on one's evidence is 1. How to explain this phenomena? Williamson's explanation is that one must: assert *p* only if *p* is included in one's evidence. According to EV, If *e* is included in one's evidence, then the evidential probability of *e* is 1. Although EV does *not entail* that *p* is included in one's evidence whenever the probability of *p based* on one's evidence is 1, it seems to me that there is no good reason to reject Williamson's explanation. Because E = K, that one must: assert *p* only if *p* is included in one's evidence just means that one must: assert *p* only if one knows *p*. That is the thesis Knowledge Rule of Assertion.

One may challenge that the thesis Knowledge Rule of Assertion is counter-intuitive. There are some situations wherein the knowledge rule of assertion isn't answered while the assertion is *reasonable*. For example, knowing that it is the last second for catching your train, I assert 'that is your train' without knowing that. Intuitively, my assertion is reasonable since it is the last second to catch your train. I am reasonable to assert that even I don't know that is your train. However, one should not confuse that one's assertion is *reasonable* with that one's assertion is *permissible*. Although my assertion is reasonable, it is not permissible. Sometimes, real life forces one to break rule in order to fulfill greater good. For example, the old story telling that in order to save a life one is forced to lie in some situations. Of course, lying in such situation is reasonable, still one broke the rule of assertion so that one's assertion is *not* permissible. One is sometimes reasonable in lying doesn't entail that knowledge rule is not in force. Sometimes different rules might conflict with each other. In such situations, some rule overrides others. I assert that is your train without knowing that is your train. My assertion is reasonable because it is the last second you catch your train. The knowledge rule is overrode. Obviously, if the situation was not that bad, you could resent that I

don't know that. You didn't resent because the knowledge rule is overrode; but that doesn't mean I did *not* break the rule of assertion. Real life is a mess, sometimes it forces us to do impermissible.

4.3 Criticism

In this section, I will examine criticism of Hindrik who claims that assertion is just expressing one's belief.

In the previous section, I indicate that we should not confuse that an assertion is *reasonable* with that an assertion is *permissible*. Frank Hindriks confused these two concepts. Hindriks claims that the traditional analysis of assertion (linguistic expression of belief) provides an excellent start point for arguing that assertion is indeed governed by a knowledge rule. He says,

> As it turns out, then the traditional analysis of assertion as the linguistic expression of belief (BE), provides an excellent point of departure for defending the idea that assertion is indeed governed by a knowledge rule. (Frank Hindriks, 2007, p.405)

For Hindriks, asserting *p* in itself is *just* expressing a belief *p* but one needs *not* believe in *p*.

(BE) To assert that *p* is to utter a sentence that means that *p* and thereby express the belief that *p*. (Frank Hindriks, 2007, p.400)

Notice that BE is *not* a normative claim. It seems to me that, for Hindriks, assertion in itself has not any norm governing it. However, if one assert *p* when one does not believe *p*, still one is breaking a norm. If assertion in itself has not any norm governing it, what norm did one break then? Hindriks acknowledges that in *normal situation*, one must: asserts *p* only if one believes *p*. For Hindriks, this is just a consequence of another norm, that is

(NS) In situation of normal trust, one ought to be sincere. (Frank Hindriks, 2007, p.401)

For Hindriks, that one sincerely asserts *p* means that one believes *p*. When (NS) applies to assertion, we have:

(NS_{AB}) In situations of normal trust, one must: express the belief that *p* only if one believes that *p*. (Frank Hindriks, 2007, p.402)

For Hindriks, the rule that one must: express the belief that *p* only if one believes that *p* is in force *only in situations of normal trust*. In other words, the norm is coming from *situations* of normal trust, not from assertion itself. Hindriks accepts Williamson's claim

(R_{BK}) One must: believe that *p* only if one knows that *p*. (Frank Hindriks, 2007, p.403)

From (NS_{AB}) and (R_{BK}), we have

(R_{AK}*) In situations of normal trust, one must: assert *p* only if one knows that *p*. (Frank Hindriks, 2007, p.403)

From R_{AK}*, Hindriks claims that one must: assert only if one knows that *p in situations of normal trust*. That means, R_{AK}* does not *necessarily* govern assertion. Both NS and R_{AK}* are not constitutive rule of assertion.

It seems to me that the motive of Hindriks taking this stance is that there are some situations in which one is *permissible* to lie.

> Imagine, for instance, a Nazi asking you whether there are Jews in your house. If you are in fact hiding Jews because you want to protect them from being deported, we deem it permissible to lie to the Nazi. (Frank Hindriks, 2007, p.402)

I cannot find any reason in Hindriks's paper to support that in the situation it is *permissible* to lie to the Nazi. Of course, we deem that in such situation, it is *reasonable* to lie to the Nazi, but that would not entail that it is a *permissible* lie.

Hindriks claims that knowledge rule is *not* constitutive rule of assertion, it only governs *some* assertion, but not all of them (Frank Hindriks, 2007, p.393) Obviously, NS is neither constitutive rule of assertion since it governs *only* situations in normal trust. Nor BE is constitutive rule of

assertion since it is totally *not* a rule at all. Hindriks never suggests another constitutive rule for assertion. Could assertion have *not* any constitutive rule?

If knowledge is able to be communicated, then the tool we use to communicate should be assertion. If assertion is *the* tool for communicating knowledge, then it must have constitutive rule. Although Williamson himself have not argued for assertion has constitutive rule, it seems to me the foregoing reasoning supports the claim that assertion has constitutive rule. Hindriks does *not*, however, provide any reason to claim that assertion has not constitutive rule.

4.4 Conclusion

I have demonstrated Williamson's argument for the thesis Knowledge Rule of Assertion, i.e., one must: assert *p* only if one knows *p*. Williamson shows that the evidential standard to assert *p* is extremely high: one must: assert *p* only if the probability of *p* based on one's evidence is 1. By EV, i.e, *e is evidence for h for S if and only if S's evidence includes e, P (h | e) > h*, Williamson interprets that one must: assert *p* only if the evidential probability of *p* as that one must: assert *p* only if *p* is included in one's evidence. Since E = K, we have one must: assert *p* only if one knows *p*.

By the thesis Primeness, the obtaining of the condition that one knows *p* hinges on the case which one is in. Since one must: assert *p* only if one knows *p*, the obtaining of the condition that *p* is assertible should also hinges on the *case* which one is in. The case which one is in dominates assertibility of *p*. In Chapter 2, I showed Williamson's argument for the thesis Anti-KK Principle, which claims that there is a case wherein one knows *p* but one does not know that one knows *p*. Since the obtaining of the condition that *p* is assertible is hinges on the case which one is in, there should be case wherein *p* is assertible but that *p* is assertible is *not* itself assertible. In fact, Williamson have provided an argument there is such a *case*. Consider the following navigator's story.

> Imagine an early navigator sailing unknown seas on a slowly moving boat. He wonders whether there is land ahead (at any distance: assume for simplicity that he does not know that the earth is round). Early in the morning, he has no idea; it is clear to him that no land is yet visible. Gradually something appears on the horizon. At first he is not sure whether he is imagining it; even after he is sure, he has at first no idea whether it is land or a mere bank of clouds. The former hypothesis slowly gains in probability over the latter. After several hours there is no doubt. By evening the boat is moored to land. The navigator is phlegmatic; his confidence that there is land ahead grows as slowly as the visible scene changes; he experiences no flash of conviction. The whole process is gradual.[21](Williamson, 1995, pp7-8)

Let t_0 be a time early in the morning, t_n be the time the boat is moored to land; and for each i, t_i be one second interval between t_0 and t_n; also for each i, C_i be the case corresponding to each t_i; P be 'there is land ahead'. By the similar argument in chapter 2, we have

(1_i) If in C_i it is assertible that it is assertible that P, then in C_{i-1} it is assertible that P.

Since the boat is moored to land in C_n, P is assertible in C_n.

(2_n) P is assertible in C_n.

For the sake of *reductio ad absurdum*, we assume

(3_i) if P is assertible in C_i then it is assertible that P is assertible.

By similar process of the argument in Chapter 2, we got a absurd consequence

(2_0) P is assertible in C_0.

Instances of (1_i) is true, and (2_n) is also true by the story; hence, some instance(s) of (3_i) fail. There is a case wherein p is assertible but that p is assertible is *not* assertible.

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[21] Williamson, T. 1995. 'Does Assertibility Satisfy The S4 Axiom?'. *CRITICA*, Vol. XXVLL, No. 81, diciembre 1995: 3-25.

Chapter 5

Conclusion

Toward an Elegant Model for Knowledge, Evidence, and Assertibility

In chapter 4, I showed Williamson's argument for the thesis knowledge rule of assertion, i.e., one must: assert *p* only if one knows *p*. In ordinary discourse, we do make assertions to communicate with others; and we can understand each other in most cases. Now, if Williamson's argument holds, knowledge is communicated by assertion. Consequently, we have an answer to the question *if knowledge is communicable*, *how*? We communicate knowledge *by assertion*.

In fact, the knowledge rule of assertion is essentially nothing more than a theoretical consequence of the thesis that knowing is a mental state. To see this, let us review all theses I have demonstrated in previous chapters. They includes

(i) the thesis that knowing is a mental state (KMS);

(ii) the thesis that the condition that one knows *p* is prime (the primeness thesis);

(iii) the thesis Safety Requirement of Knowledge;

(iv) the thesis Anti-Luminosity;

(v) the thesis Anti-KK Principle;

(vi) the thesis Anti-Luminosity of Evidence;

(vii) the thesis E = K;

(viii) the thesis Knowledge Rule of Assertion.

In the previous chapters, I illustrated each argument for thesis (ii) to (viii). I deliberately emphasized the presupposition of each argument for the theses. The emphasis on Williamson's presupposition had two aims: firstly, to indicate that each thesis is well-grounded. Secondly, to reveal that the theses (ii) to (viii) are all theoretical consequences of thesis (i). In this chapter, I will summarize the arguments we have seen in the previous chapters. In the summary, the reader can clearly see that each thesis in the list is just a theoretical consequence of the thesis that knowing is a mental state. Further, the reader will clearly see that the theses in the list provides us an elegant model for knowledge, evidence, and assertibility. We only need to admit that there is a class of *case*s wherein the condition that one knows *p* obtains, then this class can be also the model of one's evidence including *p*, and of assertibility of *p*, because the following three propositions hold in Williamson's theory.

(a) for every case α, one knows *p* in α if and only if *p* is assertible in α.

(b) for every case α, one knows *p* in α if and only if *p* is included in one's evidence in α.

(c) for every case α, *p* is included in one's evidence in α if and only if *p* is assertible in α.

I will then draw the conclusion that Williamson provides an elegant model for knowledge, evidence, and assertibility.

The thesis that knowing is a mental state (KMS), is the starting point of Williamson's epistemology. In Chapter 1, I demonstrated his heuristic argument fencing off all putative challenges to the thesis KMS. These putative challenges includes the followings:

(1) One's mental state is transparent, in the sense that whenever one is in the mental state *s* one knows that one is in *s*; meanwhile, one's knowledge is not transparent, i.e., one might not know *p* but does *not* know that one does not know *p*.

(2) Knowing whether one knows *p* requires evaluating reasons for or against *p*. Belief ascription needs no evaluating reasons.

(3) One's belief whether one knows *p* is defeasible by new information; meanwhile one's belief about whether one believes *p* is not defeasible in the same way.

Williamson replied to the first challenge by showing that mental state is *not* transparent. He rebutted the second challenge by illustrating that even belief ascription needs evaluating reasons as well, and quashed the last challenge by demonstrating that even one's belief about whether one believes *p* is defeasible by new information. By these defenses, Williamson legitimately presupposes that knowing is a mental state. Also he employs three axioms to characterize the mental state of *knowing*.

K_1 If Φ is an FMSO, from 'S Φs that A' one may infer 'A',

K_2 'Know' is an FMSO,

K_3 If Φ is an FMSO, from 'S Φs that A' one may infer 'S knows that A',

where K_1 is just explaining what is a FMSO, K_2 claims *know* is an FMSO, and K_3 claims that *knows* is the most general FMSO.

Since knowing is a mental state, this claim obviously entails that the obtaining of the *condition* that one knows *p* hinges on an internal state (the state of an agent) and an external state (the state of the external world). Therefore, the condition that one knows *p* is broad, i.e. the thesis Broadness. Both an internal state and an external state offer contributions to the mental state of one knowing *p*, however, these contributions cannot be treated separately, so that a *case* is called for to characterize these contributions. This is the thesis Primeness. In Chapter 1, I demonstrated Williamson's argument for the thesis Primeness. The strategy Williamson adopted is finding a triple of *cases* (α, β, γ), where the internal state of γ is the same as α, the external state of γ is the same as β, and the condition that one knows *p* obtains in α and β, but *not* in γ. The existence of such triple of cases should be enough to illustrate that the contributions offered from an internal and an external state cannot be treated separately, so that the condition that one knows *p* is not analyzable into narrow condition and environmental condition. Therefore, a *case* is called for to characterize the

contributions offered from an internal and an external state, and the condition that one knows *p* obtains *in a case*. Since the obtaining of the condition that one knows *p* hinges on the case which one is in, we may claim that the *base* on which one knows *p* is the case which one is in. Since knowing is a *mental state*, the thesis Primeness indicates that one's cognitive state depends on the case which one is in.

Because one knows *p* entails that one reliably believes *p*, a good characterization of *knowing* should be able to explain this entailment relationship. Since the obtaining of the condition that one knows *p* hinges on the *case* which one is, the *case* wherein one knows *p* should be able to explain this entailment relationship. In Chapter 2, I illustrated Williamson's explanation for this entailment relationship. He has proposed the thesis Safety Requirement of Knowledge to explain this entailment relationship, which claims that one knows *p* in a case only if *p* is true in every similar case. On the one hand, since *p* is true in every similar case, so that one is reliably believes *p* in one's case. On the other case, by the thesis Safety Requirement of Knowledge, the *case itself* can explain the entailment relationship among the state of one knowing *p* and the state of one reliably believing *p*.

In Chapter 2, I showed that the thesis Safety Requirement of Knowledge entails the thesis Anti-Luminosity and the thesis Anti-KK Principle. The former thesis claims that there is a case wherein one feels cold but one does *not* know that one feels cold; the latter claims that there is a case wherein one knows *p* but one does *not* know that one knows *p*. I have mentioned that one's cognitive state depends on the case one is in, thus it is possible that there is a case wherein the situation is not that good, so that one might not know one's cognitive state. The thesis Anti-KK Principle shows that one might be in the cognitive state that one knows *p*, but one does *not* know that one knows *p*.

The thesis Primeness indicates that the obtaining of the condition that one knows *p* hinges on the case which one is in. Because one knows *p* entails that one has suitable evidence, one's evidence

should hinges also on the case which one is in. By the thesis Safety Requirement of Knowledge, Williamson argued that there is a case wherein one's evidence has π but one does not know that one's evidence has π, where π is a piece of evidence. This is the thesis Anti-Luminosity. In Chapter 3, I illustrated the argument for this thesis.

Intuitively, if knowledge is able to be communicated, assertion should be the media of communication. If this is true, then the thesis Knowledge Rule of Assertion should hold, i.e., one must: assert *p* only if one knows *p*. Incidentally, one is warranted to assert *p* only if one has suitable evidence, thus the following rule also holds: one must: assert *p* only if one has suitable evidence. This two rules lead to the consequence that one's evidence is one's knowledge, i.e., the thesis E = K. The thesis E = K is a consequence of the thesis Knowledge Rule of Assertion. Nevertheless, the converse also holds, i.e., the thesis Knowledge Rule of Assertion is a consequence of the thesis E = K, since Williamson showed that one must: assert *p* only if one's evidence includes *p*. In Chapter 4, I illustrated Williamson's arguments for the thesis E = K, and for the proposition that one must: assert *p* only if one's evidence includes *p*.

By the thesis Primeness, the obtaining of the condition that one knows *p* hinges on the case which one is in. Since one must: assert *p* only if one knows *p*, the obtaining of the condition that *p* is assertible hinges on the case which one is in. Therefore we have

(a) for every case α, one knows *p* in α if and only if *p* is assertible in α.

Also, since both one's knowledge and one's evidence hinges on the case which one is in, by the thesis E = K, we have

(b) for every case α, one knows *p* in α if and only if *p* is included in one's evidence in α.

By (a) and (b), we have

(c) for every case α, *p* is included in one's evidence in α if and only if *p* is assertible in α.

If we admit that there is a class of cases wherein the condition that one knows *p* obtains, and take this class as a model for the mental state of one knowing *p*, by (a), (b), and (c), we simultaneously

have a model for one's evidence includes *p*, and for assertibility of *p*. It seems to me this model is an elegant one, because we only need to assume that there is such a class of cases wherein the condition that one knows *p* obtains.

Now, it is clear that Williamson shows that if M is a model for one's knowledge, then M is also a model for one's evidence and for assertibility of *p*. Obviously, This model explains how one has knowledge: one knows *p* because one is in a *case* wherein the condition that one knows *p* obtains. This model is *not only* capable of explaining how one has knowledge, it also explains how one's evidence includes *p*, one's evidence includes *p* because one is in a *case* wherein the condition that one knows *p* obtains. Also it explain how *p* is assertible, *p* is assertible because one is in a *case* wherein the condition that one knows *p* obtains. Accordingly, the model shows that once we have knowledge, we don't need to worry about whether knowledge is communicable or how it is communicable, because *p* is assertible in the same cases wherein one knows *p*. *By assertion, we communicate knowledge*.

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