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Disagreement and Newly Understood Equal Weight View

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Abstract

Disagreement and Newly Understood Equal Weight View

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The problem of epistemic disagreement is a problem of rationality in a broad sense. Epistemic disagreement occurs in situations where cognitive subjects who are epistemically equivalent with each other in their reasoning ability arrive different conclusions from the same set of evidence. The question is how should the disputants should revise their original opinions after noticing the disagreement. In Chapter I, I will introduce this question in detail and enumerate contesting theories on this issue. Among them, I will defend the Equal Weight View as a most intuitive answer to the present question. Chapters II and III will each be independent attempts to argue for the Equal Weight View. In Chapter II, I will enter into the controversy between advocates of uniqueness and permissivists. This dispute is known to be closely related with the problem of epistemic disagreement. I will maintain that the controversy between the two theses provides us a reason to prefer the Equal Weight View. In Chapter III, the internal issues of epistemic disagreement will be discussed. Admitting the core creed of the Equal Weight View, I will suggest a new understanding about the theory. My final aim is to show how the new version of

the theory can explicate the existing problems that have been raised against the original theory.

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Keywords : Peer Disagreement, Epistemic Rationality, Uniqueness, Permissivism, Equal Weight View, Probabilistic Belief

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Table of Contents

I. Introduction

It is said that we, as cognitive subjects, are charged with *Epistemic Duties*: the duty to pursue what is true on the one hand and the duty to avoid what is false on the other hand. In forming a belief, one ought to do his or her best to satisfy these duties so that one can be regarded as a rational subject. Generally speaking, one is likely to receive a better phrase as he or she achieves more truth and avoids more falsehood. The problem, however, is that truth and falsehood are not directly known to us. In most cases, we have to distinguish what is true from what is false on the basis of evidence that is available to us. After all, the rationality of a subject relies on whether or not she has appropriately responded to the given set of evidence. Then, how should we respond to our evidence? This is the question that philosophers in epistemology have always concerned and, in the big picture, this is what I am going to discuss in this paper. I will just focus on the particular situation which is called *Epistemic Disagreement(or Peer Disagreement)*. Then, what is epistemic disagreement?

1. What is Epistemic Disagreement?

We say that an epistemic disagreement takes place when there is a dissonance between two cognitive subjects who are referred to as *Epistemic Peers*. To be an epistemic peer of someone, one should be equivalent to her in two respects: available evidence and the reasoning ability. Epistemic peers share the same set of evidence. That means, they have the same source from which their inference starts.

Moreover, epistemic peers are equally matched in their reasoning ability. This means that they have the same track records in fulfilling the epistemic duties. The fact that our hitherto track records are equivalent indicates that I am as good as you are in evaluating the evidence. To say it in other words, we are equally likely to make an inferential mistake in evaluating the evidence and thereby arrive at a false conclusion. Under these conditions, imagine that peers arrive at different opinions so that their final beliefs are incompatible with one another. This is the situation of disagreement we are interested in. The occurrence of disagreement itself, however, will not really be a matter unless the disputants themselves are aware of some facts. First, the disputants are supposed to notice the fact that they are epistemic peers of each other: they possess the same total evidence and their reasoning processes are equally reliable. Secondly, they must be exposed to the disagreement between them. After all these conditions are satisfied, finally, the interesting question arises: how should the disputants revise their original opinion when they find the different conclusion of their epistemic peer?

Some might deny the very possibility of this kind of disagreement even before we begin our discussion. One may have doubts as to whether or not epistemic peers actually exists. Is it really possible for different subjects to have the exactly equivalent set of evidence or reasoning capacity? Cohen gave an explanation as an answer to this question. He said that there is a situation in which no party to the dispute can be said to be in a better evidential circumstance or have a superior reasoning capacity than the other. We are safe to say that those parties are epistemically equivalent. The

very issue of peer disagreement—that is, what rational belief revision is—still remains in this situation. Others wonder how disagreement can even arise between epistemic peers. They might expect any two people, who have the same evidence and equivalent reasoning ability, to arrive at the same opinion. According to Christensen, however, we are epistemically imperfect in two respects[1]. First, our evidential circumstances are limited. Poor and insufficient evidence might support various conclusions that are incompatible with one another. Secondly, and more crucially, our reasoning process is fallible. Although we are generally rational subjects, we do not always succeed in responding to given evidence in the best way. Even if we have a sufficient amount of evidence, we easily make mistakes and derive improper conclusions. Thus, peer disagreement is not only possible but also actually prevalent.

2. Two Levels of Evidence and the Equal Weight View

One of the important features of disagreement between epistemic peers is that the evidence that they share falls into two different categories: psychological and non-psychological. Suppose that you are a meteorologist trying to forecast tomorrow's weather. You judged that it will rain tomorrow. In order to make that judgement, you might use meteorological data and a meteorological model to analyze the data. This kind of evidence has nothing to do with your or any other's psychology. Thus, they are non-psychological evidence. Now, imagine that you do not have any meteorological information, but

1) Christensen(2007: 187)

come to believe that it will rain tomorrow. Suppose that, in this case, it was the fact that your co-worker, who is also a meteorologist, believes that it will rain tomorrow that made you have that belief. Here, you are employing psychological evidence to arrive at a certain judgement about tomorrow's weather condition. Generally speaking, the information of a subject's arriving at a certain conclusion based on a certain set of evidence is called *psychological evidence*. Feldman made the same distinction in a different terminology: *first-order evidence* and *high-order evidence*[2](And I will prefer these terms because, as will be presented in the following paragraphs, psychological evidence and non-psychological evidence seem to have different evidential powers). Assuming this classification, a more precise and advanced description about the epistemic disagreement would be as follows: disagreement occurs when epistemic peers arrive at different conclusions based on an equivalent set of first-order evidence and the issue is that, after being exposed to the present disagreement, how the parties to the dispute can rationally respond to their additionally acquired high-order evidence, i.e. peer's different opinion.

The answer to this question changes depending on the status we assign to the high-order evidence. One might think that there can be no difference between first-order evidence and high-order evidence regarding their evidential power. Most prominently, Kelly insists that the two types of evidence should be considered to have the same "normative significance"[3]. One of the reasons, he argues, is because

2) Feldman(2005)
3) Kelly(2010: 132)

they were given their evidential status for exactly the same reason. Whether it is psychological or not, an information acquires the status of evidence in virtue of its reliability as an indication of truth. To support his claim, Kelly compares the high-order evidence to a litmus paper: as if a litmus paper's turning red is a reliable indication that the test solution is acid, others' believing this or that thing is a reliable indication that I may (or may not) believe the same thing. In this respect, high-order evidence is said to be equivalent to first-order evidence. From this line of thought, Kelly draws the conclusion that the two types of evidence work in the same operational mechanism.

Based on his view about evidence, Kelly gives an answer to the question of epistemic disagreement: when epistemic peers disagree with each other, they should fairly respond to their total evidence without letting the high-order evidence 'overwhelm' the first-order evidence. Kelly claims that there might be a case in which it is rational for one party to the dispute to adhere to one's own original opinion. Suppose that you and I are epistemically equivalent but have derived conflicting conclusions from the same set of evidence. Let's further suppose that our shared evidence supports my conclusion rather than yours. In this case, according to Kelly, although the psychological information about my peer's having a different conclusion on this issue is a reliable indicator that my present inference might include an error, my total evidence—which is the sum of the first-order evidence and the high-order evidence—should still support my answer rather than yours. Thus, the rational response to my total evidence will be holding fast to my own conclusion. Kelly calls this view the *Total Evidence Theory* in that, according to

this theory, one is always expected to reflect one's entire body of evidence in a situation of epistemic disagreement. To do justice, however, a more appropriate name for his suggestion would be the *Right Reason View*. According to this view, one might give an additional weight to one's own opinion rather than his or her peer's in some cases of disagreement. It is when one has rightly inferred his or her opinion from the given set of evidence.

Now, I raise some doubts about whether or not Kelly will succeed in defending his own version of the Right Reason View. The fact that both psychological information and non-psychological information are reliable indicators of reality does not imply that their evidential mechanisms are identical. Then, what would be the difference? We can identify two different types of evidence as a defeater: rebutting evidence and undercutting evidence.[4] The first—and maybe the typical—type of defeater is *rebutting evidence*. It attacks the conclusion itself that has been supported by the original evidence. For instance, observation of a black swan constitutes a rebutting evidence against the hypothesis that all swans are white. On the other hand, there is *undercutting evidence* which attacks the supporting relation between original evidence and the conclusion drawn from it. Suppose that you are in a room and its wall looks red to you. Based on the perceptual experience you have, you believe that the wall of this room is red. Sooner or later, you find a note that says "The ramp in this room emits red light in a way that no one can notice." This new information weakens the connection between your personal experience of seeing red and things being red rather than directly

4) Pollock(1986)

denies the conclusion that the wall of the room is red. It would be irrational to keept beleieving that the wall of the room is red even after noticing the information about the lamp of the room.

In this light, the high-order evidence of our concern would be categorized as the latter kind of defeater. Suppose you came to realize that your epistemic peer has derived a different conclusion than that of yours from the same set of evidence. In this case, the information about your peer's believing something else does not rebut your original conclusion. What high-order evidence brings into question is the alleged relation between the original evidence and your original conclusion. In this regard, high-order evidence belongs to undercutting evidence. Moreover, high-order evidence is thought to be a special kind of undercutting evidence. According to Chirstensen[5], what is special about high-order evidence is its role of bracketing; high-order evidence brackets initially given evidence.

Suppose, as a doctor, you are diagnosing a patient. After checking all of his symptoms, you conclude that all those symptoms were caused by a flu. Before long, however, you find that your fellow doctor judged that the patient might have a disease more serious than a flu. This information does not attack your diagnosis that the patient got flu. What matters again is the connection between patient-reported symptoms and your diagnosis because high-order evidence about your peer's belief implies the fact that you might make a mistake in evaluating the original evidence. Therefore, you should not give your original evidence its due by bracketing it.

Acknowledging these features of high-order evidence, the

5) Christensen(2010: 195-198)

Equal Weight View is considered as the most intuitive answer to the peer disagreement problem. In reconciling the confrontation between epistemic peers, advocates of this theory require one to give equal weight to one's own opinion and peer's different opinion. The fact that your peer has derived a different conclusion based on shared evidence implies that you might have mistakenly derived a wrong conclusion from that evidence. Considering that the peer has reliable belief-forming capacity comparable to yours, you two are equally likely to make inferential mistakes about current issues. Thus, without any further information about who is more likely to make mistake this time, it will be completely irrational for you to cleave to your own opinion: the grounds for your adherence, if at all, should be something irrelevant or irrelevant at most. To avoid such irrationality, you should give equal weight to the different opinion of your peer.

In the following chapter, we will meet another controversial issue that has been considered as having a significant connection with the problem of peer disagreement: the dispute between Uniqueness and Permissivism. Discussion about the peer disagreement will begin in earnest in chapter III. As will be discussed in that chapter, I am in full sympathy with the sprit of the Equal Weight View. However, I will raise some concerns about the way in which the problem has been dealt with.

II. Uniqueness, Permissivism, and Peer Disagreement

The issue of peer disagreement is how one can rationally respond to the high-order evidence about his or her epistemic peer. This issue seems to be closely tied up with the question about evidence. How stringent, or how loose, will the constrains of rational response be given by evidence? This is the issue that uniqueness-theorists and permissivists are confronting. Advocates of uniqueness have a strict criteria on rationality: they only permit single and unique doxastic attitude as a rational react to a given set of evidence. In contrast, permissivists hold a rather generous concept of rationality: they think that there is some range of possible rational reacts to a certain set of evidence. In this chapter, I will first look through the controversy between the two perspectives, and then discuss the implication that the present issue has upon the problem of peer disagreement.

1. The Dispute Over the Uniqueness Principle

1.1. Differences Between the Two Perspectives

Let us compare the details of the two perspectives. Advocates of uniqueness insist that, in every belief-forming cases, there is a uniquely rational doxastic attitude to one's total body of evidence. Their thesis—the so called *Uniqueness Principle*—can be formulated as follows:

> **Uniqueness** : If an agent whose total evidence is E is fully rational in taking doxastic attitude D to *p*, then necessarily,

> any subject with total evidence E who takes a different attitude to *p* is less than fully rational.[6)]

While the uniqueness principle is a universal claim, permissivists are making an existential claim that there are counter-examples against the principle. According to them, there exist some cases—i.e. *permissive cases*[7)]—in which different doxastic attitudes might be thought as identically rational response to a same set of evidence. Permissivism can be divided into two levels depending on the degree of permissibility. Among them, *Strong Permissivism* is the most extreme claim. According to this view, there are some cases in which it is rational to believe not only that *p*, but also its negation, *not-p*, based on the same body of evidence**,** E. The more generally-accepted form of permissivism, however, is *Moderate Permissivism*. Moderate permissivists just narrow the range of rationally permissible reacts to a given evidence set. They insist that there are some cases in which it is rational to believe that *p* with differing degrees of belief based on E. For example, rational reacts to *p* given E might range from believing *p* with minimal conviction to doing it with full conviction.

This issue seems to be closely related to the way we see our belief state itself. We have two competing perspectives about our belief state. On the one hand, there is a common understanding according to which belief is understood as an all-or-nothing matter. We just believe or do not believe a proposition and there is nothing like partial belief. Precisely speaking, relevant belief states we can hold on a proposition are only *belief*, *disbelief* and *suspension of*

6) White(2013: 312)
7) White(2013 :313)

belief. In this paper, for the sake of convenience, I will call this view the *Triple System of Belief*. Each doxastic state could be roughly described as follows. Believing *p* is to affirm that *p* is true, whereas disbelieving *p* is to deny the truth of *p*—that is, to affirm the truth of *not-p*. Suspension of belief is often referred to as the *epoche* about the judgement whether *p* is true or not. It does not affirm nor deny the truth of *p*. On the other hand, there is a seemingly more elaborate theory about belief, which is usually termed the *Credence System of Belief*. It understands our belief state as something that can be splitted up into diverse levels. Under this system, we can talk about various belief states between belief and disbelief. This leads us to the quantified concept of belief, or *credence* in other words. Following the *Standard Bayesian Convention*, the credence system turns the belief state into a numerical index from 0 to 1. Credence 1 corresponds to the state of believing a proposition with full confidence, credence 0 to totally denying its truth, and credence .5 to a neutral attitude on the relevant issue. In the credence system, therefore, by picking any number between 0 to 1, one is be able to indicate diverse degrees of belief state. For example, credence .75 will indicate the state of the exact middle between belief and suspension of belief.

Each belief system has been thought to be preferred by different perspectives about rational belief. To begin with uniqueness, the advocates of the principle might well prefer the triple system of belief. Their conviction is that there is always one fully rational response that one's total evidence permits. Under the triple system, when the given evidence E only permits one to believe that *p*,

disbelief in *p* or suspension of *p* would be regarded as irrational reacts to E and there is no absurdity here. As soon as they adopt the credence system, however, absurdity arises. Now, the uniquely rational response to E is, for example, to believe that *p* to degree .7. In this case, believing *p* to degree .69 or .71 would be less than fully rational. But this seems to be an excessively strict constraint on rationality. When it comes to permissivism, it does not so much matter what belief system is at work. But following credence system would be the easier way to go since this system usually makes the theory more moderate. Credence system enables permissivists to narrow the range of permissible reacts to an evidence. Thus, by advocating credence system as the right theory about our belief state, permissivists will be able to charge uniqueness with being too excessive constraint on rationality as well as to arrange easy way for themselves.

As I see it, however, the credence system will not provide enough reason to prefer permissivism. Rather, it even seems self-destructive for permissivists to adopt the system**.** It is true that the credence system imposes some explanatory burdens on the uniqueness principle. As for the advocates of the uniqueness principle, there seems to be no promising way to explain the excessiveness of their constraint on rationality. But my question is this: does permissivism itself avoid the same problem? I would say no. Unless they defend the strong type of permissivism, they would say that there are some permissive cases where a range of belief states might be regarded as rational reacts to a given set of evidence. For instance, suppose the rationally acceptable range of react to E is to

believe that *p* to degree from .7 to .9. If so, there is no difference in rationality weather I believe that *p* to degree .7 or .71 based on E. What if, however, someone believes that *p* to degree .69 based on E? Should we blame her for forming an irrational belief from E? If at all, why it is so? I cannot expect permissivists to have a promising strategy to answer to this question. In this regard, I conclude that both the advocates of uniqueness and of permissivism are carrying the same burden to explain the excessiveness of their respective constraints on rationality.

Moreover, and more importantly, permissivists themselves are in a worse situation. Uniqueness under the credence system says that there is a unique value of credence that one can rationally assign to a certain proposition on the basis of given evidence. Likewise, advocates of this combination lay a substantial difference between uniquely rational credence and approximate values of it. Suppose you maintain that it is rational to believe that *p* only to degree .7, but not to .71, based on E. Then you should believe that there is a great difference between the credence values of .7 and .71. But permissivists under the credence system postulate a rational range of credence that one can assign to a certain proposition based on given evidence. According to this combination, each value which belongs to that rational range of credence is treated equally. Thus, it seems that there is no significant difference between credence .7 and .71 when you maintain, for instance, that it is equally rational to believe that *p* to degree from .7 to .9 on the basis of E. It is because each value of the rationally permissible range should make no difference that can cause a difference in rationality. Then, why is it less rational to

believe that *p* to degree .69 based on E? I find that permissivists cannot formulate a better answer to this question. Advocates of uniqueness would invoke a significant difference between credence .69 and .7. Although this answer is insufficient, it is at least consistent. As for the permissivists, however, it is hard to expect them to have this kind of consistency: it is incoherent to treat credence .7 and .9 equally, but to discriminate between credence .69 and .7. Unless they are able to provide an adequate answer to this question, they cannot permit believing that *p* to degree .7 based on E, but blame believing that *p* to degree .69 based on E. So, they should permit .69 as a rational credence that can be assigned to *p* based on E. However, this consequence threatens the permissivism itself. We can again ask: why is it less rational to believe that *p* to degree .68 based on E? If credence .69 can be permitted, .68 would be as well. Permissivists cannot help but permit .68 as an equally rational credence again. In this way, they may permit any value of credence as equally rational reacts once the present case is a permissive one. I take it that this suggests a necessary excessiveness of permissivism.

In sum, as soon as permissivists introduce the credence system of belief, they encounter the same question that they have raised to endanger the uniqueness principle. But I also find that this question is more problematic to the permissivists themselves, rather than to their rival theorists: while the advocates of uniqueness have motives to differentiate between a uniquely rational credence and its approximate values, permissivists have no motive to exclude approximate values of the permitted credences. As a result, it seems inevitable for permissivists to expand the range of rationally permissible credence in

any permissible case. This leads us to an interesting conclusion that permissivism of moderate form is unpromising. If a theory can survive only in its strongest form, it is a fatal flaw of the theory.[8)]

1.2. Alleged Implications

So far, I have discussed several points about the controversy between uniqueness and permissivism. From now on, I will invest if this issue has any connection with the problem of peer disagreement. Both White. R., an advocate of the uniqueness principle, and Kelly. T., a leading permissivist, have emphasized the connection between the two problems. White writes:

> ... how we answer the question of permissivism would appear to have consequences for the problem of disagreement. ... permissivism allows you to "stick to your guns" in the face of disagreement. ... it follows from Uniqueness that at least one of [the disputants] is failing to respond rationally to the evidence.[9)]

According to this paragraph, the uniqueness thesis is a sufficient condition of the Equal Weight View, whereas permissivism is the necessary—but not sufficient—condition of the Anti-equal Weight View. At first glance, this explication seems plausible. Following uniqueness, suppose that there is a uniquely rational doxastic react to a given set of evidence. Then, occurrence of disagreement implies the

8) As I see it, the problem suggested here will be the chance to start doubting the credence system itself, rather than uniqueness or permissivsm.
9) White(2013 :313)

fact that at least one of the parties to the dispute had arrived at an irrational belief by mistakenly estimating the shared evidence. Without any additional information, the disputants will not be able to know which one has correctly responded to their shared evidence. Thus, both sides of the dispute should follow the advice from the equal weight view and give same weight to each of their opinions. Now, suppose that permissivism is true and that there are permissive cases. In this case, even if a pair of peers arrive at incompatible conclusions from the same set of evidence, none of the party to the dispute might not deserve our blame for being irrational in their belief-forming performance and, accordingly, both would be allowed to adhere to their own original opinions. As revealed in the preceding discussion, this is what anti-equal weight theorists have argued.

However, there is a claim that this might be a hasty judgement. We need to consider the issue in the point of the disputants themselves. Suppose you and I are epistemically equivalent but come to arrive at different doxastic attitudes about *p* based on E: while I believe that *p* based on E, you suspend the judgement about *p*. After being exposed to this disagreement, we are required to reconcile the dissonance. So far, I have discussed the basic setting of a disagreement case. Now, let's suppose more than this. At this time, suppose that I am an advocate of the uniqueness principle and thus believe that there is one most rational attitude that I can rationally hold for *p* based on E, and you are a permissivist who believes that there are some permissive cases and our present issue is one of them. In this case, with which direction should we comply in reconciling our dissonance? Even if we assume that the uniqueness principle is

right and there is no such thing as a permissive case, following the advice from the Equal Weight View seems irrational for you. Likewise, even if we assume that permissivism is true and this issue is a permissive case, it seems irrational for me to follow the instruction from the Anti-equal Weight View as long as I have faith in the uniqueness principle.

Then, does the controversy between the uniqueness thesis and permissivism have nothing to do with the problem of disagreement? I would say no. In the following chapter, I want to show that there is a notable connection between the two problems. As it turned out, even if we can determine the winner of the present controversy, it will not have any direct influence upon the problem of peer disagreement. However, as will be suggested, the consequence of the present issue is expected to provide a head start for the proponents of the Equal Weight View.

2. Argument Against Uniqueness

2.1. Argument from Kelly

In a bid to reject the uniqueness principle, Kelly attempts to clarify the principle itself. According to him, the principle was designed to constrain the so-called *slack* of rational responses to a given set of evidence. This slack is said to have two different levels of discourse: the *interpersonal slack* and the *intrapersonal slack*. Let *p* be any proposition and E be the set of relevant evidence regarding *p*. Interpersonal slack is the leeway that might exist between different subjects who have respectively arrived at different opinions based on

the same evidence. Suppose that you and I have held different opinions about *p* based on E. To say that there is an interpersonal slack in this case is to say that both of us might be equally rational evaluators of E. Contrary to this, intrapersonal slack leaves room for an individual subject. Suppose I am evaluating E in order to make a judgement about *p*. To say that there exists an intrapersonal slack in this case is to say that there is more than one doxastic attitude regarding *p* that is rational for me to hold based on E. Kelly finds that it is unclear which kind of slack is being forbidden by the uniqueness principle. While denying the intrapersonal slack is relatively easy, it is hard to deny the interpersonal slack. This is because, he argues, the interpersonal slack contains a rather weaker claim than the intrapersonal slack; if the intrapersonal slack is allowed, then the interpersonal slack will also be allowed, but not the other way around. And it seems that Kelly's version of permissivism is not one which aims at warranting intrapersonal slack. He will fully content with allowing interpersonal slack only. And, if the uniqueness principle is to exclude only intrapersonal slack, it will be perfectly compatible with Kelly's permissivism. The principle should concern the intrapersonal slack, and only then will it bring an actual conflict with permissivism.

To find a way to defend the interpersonal slack, Kelly introduces an observation on the epistemic goals which is given by James. W.(1897). As is well known, it is said that we have a twofold epistemic duty: tracking truth on the one hand and avoiding falsehood on the other hand. These goals need to be balanced, since worshipping only one of them as an absolute epistemic value would

lead us to irrationality. For instance, there might be a subject who tries to believe as many things as possible. So, even when an evidence only has a meager power to support a certain proposition, he just believes that proposition on the basis of it. As a result, he maximizes the number of truths in his belief system. Likewise, there also might be a subject who, at this time, underestimates all of the evidence he is given and holds suspension about almost every issue. By doing so, he is able to avoid any false belief. However, though both of the subjects are doing their best in fulfilling their own epistemic goals, none of them seems to be rational. Hence, rationality of an individual consists in well-balanced pursuit between the two epistemic values. But the thing is, as James points out, that different subjects might be motivated to make much of different epistemic values, and that different epistemic values seem to lead us opposite directions in forming a belief. Suppose we are investigating whether *p* is true based on E, which is quite positive evidence on *p*'s truth but its probative force is not that conclusive. Let's further suppose that I am more interested in increasing the number of truths in my belief system. Then it will be rational for me to believe that *p* on the basis of E. In order to prevent false beliefs in your knowledge system, however, it makes sense for you to suspend the judgement about *p* until you acquire sufficient amount of evidence that *p*, or *not-p*, is true.

So far has been James' understanding on the relation between epistemic goals and doxastic attitudes. Here, Kelly finds the possibility of the so-called *rational disagreement.* He seems to hold that a disagreement originated from the difference in each disputant's

targeted epistemic goals is rational disagreement in which none of the party ought to change his or her original position. Suppose that a couple of peers, you and I, are investigating whether *p* is true or not on the basis of E. Again, E is supportive—but, not conclusive—evidence for *p*. After the assessment on E, while I come to believe that *p* based on E, you decide to suspend the judgement about the issue. Once we compare our notes, we find that present dissonance between us arises from the fact that we are targeting at different epistemic values on this issue: I give more weight to seeking truth, and you put more emphasis on beating falsehood. Kelly insists that in this case, none of us should be charged with engaging in an irrational belief-forming process.

To sum up, the difference in targeted epistemic goals between subjects would not bring a difference in their rationality. Thus, as long as the disputants are aiming at different epistemic goals and the dissonance is due to the very fact, none of the disputants will be blamed for making an inferential mistake. Which value is being favored by a subject has nothing to do with how superior or inferior she is in forming her belief. Kelly believes that the interpersonal slack can be guaranteed through the above discussion. However, he denies that this will contribute to justify the intrapersonal slack. For an individual following a certain balance between the two goals, there will be a uniquely rational attitude she must hold based on a given set of evidence. Hence, if I prefer to not loose true belief than to not gain a false one, there is no way I can be rational other than believing that *p* based on E.

Now, Kelly attempts to show how permissivism can resolve

the problem raised by White. As he sees it, it is ambiguous whether White will be content only with excluding intrapersonal slack, or whether he has further aims to deny interpersonal slack by the uniqueness principle. The principle has once been defined as follows by White:

> Given one's total evidence, there is a unique rational doxastic attitude that one can take to any proposition.[10)]

As Kelly points out, the above formation of uniqueness has no interesting implication on the disagreement problem. It will not contribute to restrict the alleged slack between different subjects with conflicting conclusions derived from the same set of evidence. For this reason, what White himself has in mind seems to be the one which has an interpersonal import. Indeed, in his another formulation of uniqueness we saw in the preceding section, it is quite evident that he is actually concerned about the interpersonal slack: "if an agent whose total evidence is E is fully rational in taking doxastic attitude D to *p*, then necessarily, any subject with total evidence E who takes a different attitude to *p* is less than fully rational". The problem, however, is that White has offered no argument supporting this version of formulation. The anti-permissivism argument given by White is well known as the *Arbitrariness Argument*. In that argument, he tries to show an untenable absurdity directly followed by assuming permissivism. Kelly examines his arguments, including the one from arbitrariness, and concludes that they show the absurdity of intrapersonal slack, but never suggests any reason to doubt the

10) White(2005: 445)

possibility of interpersonal slack.[11)]

2.2. Argument against Kelly

Does the above description from James really support permissivism? Before starting to answer this question, I introduce a term '*epistemic perspective*', for the convenience of our discussion, by which I mean one's weighting arrangement between the two epistemic values. As we saw, we seem to have different senses of perspective about which epistemic value has priority over the other: some might place much value on chasing true beliefs, while others might accentuate evading false beliefs. However, it seems that epistemic perspectives are not fixed for an agent, but can be changed depending on the issue one is presently concerned about. That is, an individual who has complied with a truth-seeking epistemic perspective on some issues might follow other perspectives on other issues. Thus, what Kelly argues can be rephrased as follows: the fact that we have difference in our epistemic perspectives does not imply that one is epistemically superior or inferior than the other.

However, I have some doubts about this conclusion. The first potential problem is that an epistemic perspective might be brought from an accidental, practical, or even irrational reason. Suppose, for instance, that you have an epistemic perspective quite biased towards the goal of avoiding falsehood, and therefore you are extremely careful in every belief-forming processes. The problem, however, is that you decided to follow that perspective because of your faith that

11) Kelly(2013: 305)

you would get sick and will not be around much longer if you believe what is not true. This faith, of course, is just ill-founded and blind. Holding this faith, however, you suspend your judgements about almost every issue unless there is confirmative evidence. In this case, is it safe to say that your belief forming process employing such an irrational faith is rational?

Kelly does not mention anything about the principle of how we could—or, should—activate a specific epistemic perspective. Presumably, he might regard any epistemic perspective as equally rational, whatever its motivation is. But, then, assessment on rationality will be quite unfair. Suppose once again that you are a subject with an irrational faith that believing what is false will make you die, and thus follow the epistemic perspective putting particular emphasis on avoiding false belief. Though your total evidence, E, appropriately supports that *p* is true, you suspend your judgement about *p* until you gain further evidence confirming its truth. Now, suppose further that you have an epistemic peer who also agrees with your epistemic perspective. But her epistemic perspective has not been prompted by the irrational faith about the mysterious death of an agent with false beliefs. She just thinks that forming a belief without a definite basis is epistemically irresponsible. So, your peer would also suspend her judgement about *p* based on E with the same goal of avoiding falsehood. Then, is it safe to say that you are as equally rational as your peer in forming that belief? Kelly might answer that it is: you have performed an identically rational inferential process with your epistemic peer. Though the underlying motivation of your epistemic perspective deserves to be blamed, your belief-forming

process itself seems no more defective than hers. Kelly might distinguish the process in which one activates a certain kind of an epistemic perspective from the process in which one actually forms a belief using that epistemic perspective, and then insists that defects of the former would not transfer to the latter. Other things being equal, it is true that you actually have one more irrational belief than your peer and this irrational belief is the very motive of your epistemic perspective. Whatever its motivation is, however, your epistemic perspective itself is completely rational to follow. Thus, there is no reason for you to be blamed for engaging in an irrational belief-forming process. You are completely innocent if you do the right things in forming your belief and your epistemic perspective is proper to follow.

Let's set this issue aside and move on to the next question: what about the case where an epistemic perspective one chooses to follow seems completely irrational? As we saw earlier, certain epistemic perspectives should be avoided. Imagine a subject whose epistemic goal is only to expand the quantity of true beliefs. As a result, she believes almost everything her evidence allows to do so however meager its supportive force is. She is totally indifferent to the goal of avoiding what is false. Imagine another subject who is only interested in not gaining false belief. He is always extremely cautious in assessing his evidence so that he can avoid any false belief. Thus, he doubts the probative force of every given evidence and suspends his judgement on almost every issue. In this case, should we tolerate their radical epistemic perspectives as being sound? Or should we exclude them as being unacceptable? Kelly should

provide a proper explanation whatever his answer is.

The discussions so far were just to ask Kelly to provide additional explanations. However, there remains a more significant question against his suggestion. The question is whether there really is the alleged gap between interpersonal slack and intrapersonal slack. Kelly argued that, "certain views in epistemology that everyone would be inclined to treat as paradigms of 'permissive' views seem to be consistent with uniqueness principles that lack interpersonal import[12]." In other words, paradigmatic permissivists—probably including Kelly—would attempt to allow interpersonal slack but not intrapersonal slack. If this is the case, the uniqueness principle having only intrapersonal slack will not compete with permissivism. Actually, these two claims would be completely compatible with each other in that both agree that allowing intrapersonal slack is irrational. I raise a question about this point. If interpersonal slack can be permitted, why can't the intrapersonal slack? Kelly has showed us that allowable interpersonal slack may exist between you and I when we have different epistemic perspectives. Suppose I put a slightly heavier weight on gaining true belief than you do. Thus, in some marginal cases, while my epistemic perspective encourages me to believe a certain proposition based on some evidence, your epistemic perspective encourages you to suspend your judgment about that issue based on the same evidence. However, if it is rational for you to suspend your judgement as a result of your employing a slightly more conservative perspective than mine, why can't I adopt the same perspective and suspend my judgement?

Kelly has already attempted to answer this kind of question.

12) Kelly(2013, 304)

He first formulated the bridge principle of the two slacks that critics might want to advocate:

> BRIDGE: If it is currently reasonable for some subject S_1 to hold doxastic attitude D_1 towards *p* on the basis of evidence E, and it either is or would be reasonable for some other possible subject S_2 to hold a different doxastic attitude D_2 towards P on the basis of evidence E, then it is also currently reasonable for S_1 to hold doxastic attitude D_2 instead of D_1 towards P on the basis of evidence E.[13)]

The above formulated bridge principle is a conditional sentence whose anticipate affirms interpersonal slack and the consequent affirms intrapersonal slack. It is worth noting that the principle concerns whether it is '*currently reasonable or not*' for an agent to hold a certain doxastic attitude. This makes clear what he means by the term *slack*, especially the *intrapersonal slack*. As for Kelly, the intrapersonal slack is discussed at a fixed point in time: to say that there is no intrapersonal slack is to say that one who rationally holds a doxastic attitude D_1 on *p* given E at time *t* can not rationally hold another doxastic attitude D_2 on p given E at *t*. According to this definition, it would not be limited in principle for an agent to hold different doxastic attitudes for a relevant proposition based on the same evidence at different time points. For instance, it seems possible that I follow a truth-seeking epistemic perspective and thus rationally believe that *p* based on E at first, but sooner or later change my sense of perspective to be more conservative and thereby rationally

13) Kelly(2013: 306)

suspend my judgement about *p* on E.

Then, what is the purpose of discussing the intrapersonal slack at a fixed point in time? By doing so, Kelly might want to fix the epistemic perspective one follows. If he can fix the epistemic perspective of an individual in that way, it is difficult to allow intrapersonal slack. Assuming that the epistemic perspective one may follow at a given time is determined, there surely is a uniquely rational doxastic attitude for one to hold for a proposition based on a relevant set of evidence. If I *actually* follow a truth-seeking epistemic perspective at time *t*, it is uniquely rational for me to believe that *p* based on E whose supportive force is enough to prove *p*'s being true. However, can an epistemic perspective be fixed in this way? It does not seem so. I might have chosen a somewhat different epistemic perspective at *t* and thereby suspend my judgement about *p* after evaluating E. Even though I actually follow a truth-seeking epistemic perspective at time *t*, I could have also followed a conservative perspective at *t* and that would be totally rational for me. I cannot see any reason to accept that permissible epistemic perspective for an agent to follow at a certain time is confined to the one she actually follows—or will follow—at that time. Given that one is allowed to follow any epistemic perspective at a certain time, there is no reason for us to exclude intrapersonal slack while permitting interpersonal slack. Kelly will not be successful in denying the bridge principle.

As Kelly worried about, defending the bridge principle is the shortcut for the advocates of the uniqueness thesis to deny not only intrapersonal slack but also interpersonal slack. In his well-known *Arbitrariness Argument*, White provides us a good reason to exclude

interpersonal slack. But the bridge principle suggests that intrapersonal slack is a necessary condition of interpersonal slack. If the principle is right, White can employ the same argument which he designed to show the absurdity of permitting intrapersonal slack in order to challenge against interpersonal slack again. Now, the ultimate argument for the uniqueness principle would be summarized as follows:

> (i) If there is a case in which interpersonal slack can be permitted, there also is a case in which intrapersonal slack can be permitted as well.
> (ii) However, there is no case in which intrapersonal slack can be permitted.
> (iii) Therefore, there is no case in which interpersonal slack can be permitted.

Premise (i) is exactly what the bridge principle declares, and premise (ii) is what is affirmed by the arbitrariness argument. As long as the conclusion, (iii), is validly derivable from the two premises, permissivism will be beaten. So far, I have spent some pages in order to defend the first premise. Now I am going to evaluate the second premise by inspecting the arbitrariness argument.

3. Arbitrariness Argument

3.1. Previous Discussion on the Arbitrariness Argument

Suppose I am a jury member who has to judge whether the defendant is guilty or not. Suppose that permissivism is true and, as it happens,

the present issue is one of the permissive cases so that I am permitted by the evidence to vote for the defendant's guilt as well as for his innocence. After knowing all the above facts, imagine that I have come to believe that the defendant is guilty. There seems to be something absurd in my current belief. In the arbitrariness argument, the absurdity becomes clear. In the argument, White compares the above situation with the one where I happen to arrive at the same conclusion without any appropriate inferential procedure. He imagines a pill which has magical power to induce an intended belief in the taker's mind: if I swallow the pill which is designed to induce its taker to believe that the defendant is guilty, I will immediately find myself having a firm belief in the defendant's guilt. Here, White raises an interesting question: if the given evidence rationally permits me to believe that the defendant is guilty as well as to suspend the judgement about him, is there any reason for me to prefer to evaluate the evidence rather than swallow the belief-inducing pill in forming my belief?

We do not think that swallowing a pill is a rational way of forming belief. But, indeed, there is no reason for Kelly to recommend me to conduct evaluation over the evidence, or in other words, no reason to forbid me from randomly forming my belief by just popping a pill. White denounces that this is the fatal flaw of permissivism. If I am a rational subject, then I would enjoy a higher probability of arriving at the correct verdict by examining the evidence rather than just by popping a magical pill. In the present case, however, it is said that the given set of evidence does not determine what I have to believe. In that case, it seems absurd for

me to render a certain verdict about the defendant based on such evidence as it must be non-evidential factors that will encourage meto hold that verdict, and believing something based on non-evidential factors is not different from believing something just by taking the magical pill. This way of forming belief, however, seems quite irrational.

Kelly has claimed that the above analogy from White might shows the absurdity of the intrapersonal slack, but not of the interpersonal slack. In the arbitrariness argument, White really did not mention the absurdity of the interpersonal slack: we are just invited to imagine a single subject whose evidence is permissive. Judging from this, there is no doubt that his direct interest was to argue over the intrapersonal slack. It is quite easy, however, to modify the original argument to be relevant to the epistemic slack between two subjects. All we have to do is just cast someone else, *you*, as another member of the jury who has judged that the defendant is innocent based on the same set of evidence. Provided that this is a permissive case, my believing the defendant's guilt and your believing his innocence are all rational reacts to the shared body of evidence. Thus, none of us would be considered to be less rational than the other. Indeed, I will willingly respect your conflicting conclusion as rational as mine. Now, White might bring up the same question he once asked in his original argument: if the shared evidence permits both of our different conclusions as identically rational, is there any adequate reason for us to prefer to examine the evidence rather than swallow the belief-inducing pill in making our judgement? We find exactly the same absurdity we have encountered a while ago: there seems to be

no way to explain our intuition that while examining evidence is the right method of forming our belief, popping a pill is not.

As a possible response to rescue interpersonal slack from the above modified version of argument, Kelly might invoke the difference in our epistemic perspectives. As before, let the available evidence be permissive. Suppose you and I have come to arrive at different judgements about the defendant based on the same evidence. However, at this time, this was because of the fact that I was holding a somewhat active epistemic perspective, while you were following a rather conservative epistemic perspective. Now, Kelly will insist that we might employ non-evidential factors in deciding the epistemic perspective we follow, but did not in making our judgements about the defendant. As we saw earlier, arbitrariness in choosing an epistemic perspective is not a matter of concern in Kelly. If this is the case, however, what we ought to assume is not the pill directly inducing a certain belief about the defendant's guilt. It is supposed to be the one which will make us follow a certain kind of epistemic perspective. Seeing things in this way, the absurdity does not seem to arise any longer. Now there are two possible ways of forming one's epistemic perspective: autonomously choosing one's own epistemic perspective on the one hand, and just popping a perspective-inducing pill on the other hand. Notice that we still do not have any reason to prefer the autonomous process to swallowing the pill in order to decide our epistemic perspective. Nevertheless, contrary to the original case, there is nothing irrational in popping the perspective-inducing pill. We felt reluctant to swallow the original pill because its taker will arrive at a certain belief without any process of

evaluating the relevant evidence. However, we don't feel the same in taking the perspective-inducing pill because it is impossible for a subject to arrive at a certain belief just by popping such pill.

However, I take it that Kelly cannot escape from the arbitrariness argument in the abovementioned way. As we saw earlier, what Kelly has described as the paradigm of permissivism was the one which is permitting interpersonal slack while denying intrapersonal slack. For this purpose, however, only the modified version of the argument should be denied while maintaining the influence of the original argument. This strategy will fail because, as I see it, the way in which the modified argument has been denied will be the way in which the original argument will be denied. As I have put forward, if it is possible for different subjects with different epistemic perspectives to rationally hold different conclusions based on the same set of evidence, it is also possible for an individual subject to rationally derive a different conclusion other than the one she actually follows from the evidence by switching her epistemic perspective. Thus, as a jury member, although I have employed a truth-seeking epistemic perspective under which I could rationally believe that the defendant is guilty based on the available evidence, I might have followed a somewhat conservative epistemic perspective under which I could rationally suspend my judgement based on the same evidence. Therefore, the pill that had to be imagined in the original argument—as well as in the modified argument—is not the one which can immediately induce a certain belief about the defendant in its taker. It is supposed to be the one which has a power to make the taker follow a certain epistemic perspective. Once we assume this kind of a

pill, the original argument loses its initial effect against the intrapersonal slack. This will eventually paralyze the project of denying intrapersonal slack while permitting interpersonal slack.

To sum up, the lesson we have learned from the above discussion is that the original arbitrariness argument and the modified version of it share their fate. The original argument was designed to show the absurdity of the intrapersonal slack, but it can be modified to also attack the interpersonal slack. Kelly might want to defend permitting the interpersonal slack by claiming that the arbitrariness in question arises not from our belief-forming process but from our epistemic perspective. If we follow his claim, however, the original argument will lose its influence by invoking the arbitrariness of our epistemic perspective. Thus, the original argument and the modified version of it should be affirmed or denied at the same time.

3.2. A Reappraisal of the Arbitrariness Argument: The Unstability of the Popping Pill

Now, my concern of this section is to see if we can reject permissivism by affirming the arbitrariness argument. I expect that Christensen's consideration would support my plan. Christensen has attempted to break the seemingly strong connection between permissivism and *live-and-let-live attitude*[14]. The term 'live-and-let-live attitude,' which was introduced by Elga, indicates the attitude of holding one's ground in a disagreement case. The theory defending this attitude has been called in different ways. Elga referred to it as

14) Christensen(2007: 190-191)

the *Extra Weight View* according to which we are expected to put more weight on our own opinion than our peer's[15]. Kelly terms it the *No Independent Weight View* that permits us to put no weight on our peer's opinion[16]. Indeed, the live-and-let-live attitude goes with permissivism. However, Christensen suggests an example to reveal the so-called *unstability* of accepting the two theses at the same time. The following is a shortened version of his example:

> You and I, as equally skilled doctors, were examining a patient to find what disease he was suffering from and how it can be cured. As it turns out, we only have two medial theories—T_1 and T_2—under which his symptoms could be explained. After a great deal of thinking, I came to give more credence to theory T_1 whereas you gave more credence to T_2 as the proper medical theory for the reported symptoms of the patient. Suppose I believe that permissivism is true and that this is a permissive case. Thus I cling to my original opinion even after facing your conflicting diagnosis. That is, while I think that each of our diagnoses are equally rational reacts given our evidence, I decided to adhere to mine and prescribe our patient according to T_1.

Christensen mentions that "[t]here's something unstable about holding onto my belief while acknowledging that a different belief enjoys equal support from the evidence[17]". Unfortunately, Christensen does

15) Elga(2007: 485)
16) Kelly(2010: 115-116)

not provide a more developed explanation about the unstability. As I see it, however, this must be a similar concept to *inconsistency*. If I really permit the conflicting opinion of my peer as rational as mine, it would be inconsistent for me to ignore his diagnosis and adhere to my judgement. It will be helpful to enumerate the—psychological—facts about myself in this situation:

> (i) I believe that it is identically rational for me to employ T_2 as well as T_1 in order to explain the patient's disease given my evidence.
> (ii) I employ T_1 to explain the patient's symptoms given my evidence.

(i) reports the fact about my belief that the current issue is a permissive case, and (ii) reports the fact about my arriving at a certain belief about this issue. At first sight, one might think that there is no problem. However, the following requirement for consistency reveals the conflict between (i) and (ii):

> (iii) I will employ T_1 given my evidence only if I believe that it is irrational to employ T_2 in explaining the patient's symptoms given that evidence.

The above statement, (iii), clearly reveals the inconsistency between (i) and (ii). According to (ii) and (iii), it follows that I am expected to believe that it is irrational to employ T_2 in explaining the patient's symptoms. However, this is inconsistent with (i). I take it that Christensen might bring the concept of *unstability* to indicate the

17) Christensen(2007: 191)

hidden inconsistency that would be revealed anytime. Cohen has discussed exactly the same issue from a somewhat different approach. According to what he calls *Doxastic Uniqueness*, "[a] subject cannot rationally believe there are two (or more) rational credences for *h* on e, while rationally holding either[18)]". In this thesis, Cohen also requires a subject to refrain from holding unstable beliefs. The only difference is that Cohen proposes the thesis in terms of credence. Suppose that I am examining how much credence I should impose on *p* given E. If I take E to be so permissive that it allows a range of credences to be identically rational, could I settle down into a specific degree of belief other than the others? Unless I abandon the faith in permissivism, that settlement would be unstable in Christensen's term, or running counter to doxastic uniqueness in Cohen's term.

Now, let's turn back to the matter of forming belief by popping a magical pill. When I swallow a pill—say, a guilty one—in order to judge whether the accused committed the crime or not, the following are all true:

> (i) I believe that it is identically rational for me to swallow the NOT GUILTY pill and thereby believe that the defendant is not guilty as well as to swallow the GUILTY pill and thereby believe that he is guilty.
> (ii) I come to believe that the defendant is guilty as a result of popping the GUILTY pill.
> (iii) I will believe that the defendant is guilty only if I think that it is irrational to believe that he is innocent.

18) Cohen (2013: 101)

As before, (i) indicates the psychological fact that I regard the present issue as a permissive case, (ii) is the fact that I am adopting the live-and-let-live attitude, and (iii) is the requirement for consistency with which I am supposed to comply in this case. Putting these three facts together, I come to find myself in trouble. (ii) and (iii) together imply that I would be reluctant to swallow the NOT GUILTY pill because I know that it will infuse me what I think irrational. This directly contradicts with (i). As before, my verdict will end up with unstability. Finally, we have a lesson: the belief-forming process like popping such pill will eventually render the intended belief unstable. But notice that, according to arbitrariness argument, forming belief by popping a pill is corresponding to forming belief in permissive case. Thus, we can conclude that we will encounter the same trouble when we arrive at a certain belief on an issue while I believe that the issue is permissive case.

Though White himself did not refer to Christensen, it seems that he is also aware of the problem of unstability. Right after introducing the arbitrariness argument, he asks, "[c]ould I reasonably maintain my belief while recognizing that I formed it just by popping a pill?[19]". When I acknowledge that my belief has been caused by a pill, I do mean more than that I just swallowed a piece of pill. Besides, I am supposed to have the underlying belief that it is rational for me to form a belief on this issue by just popping that pill. This is to have belief in permissivism after all. The faith in permissivism leads one to a live-and-let-live attitude. However, it is unstable to keep the faith and the attitude at the same time. This

19) White(2013: 315)

would be a good news for White. We can conclude that one who advocates permissivism cannot help but arrive at a belief not only arbitrarily but also unstably.

As we saw earlier, Kelly has attempted to avoid the problem of arbitrariness by invoking one's epistemic perspective. Is it possible for him to resolve the problem of unstability in the same way? If I am a permissivist who attributes the interpersonal slack to the difference in epistemic perspective, the following statements are true:

> (i) I believe that it is identically rational for one to adopt conservative perspective and thereby suspend judgement on *p* based on E as well as adopt truth-seeking perspective and thereby believe that *p* based on E.
> (ii) I adopt a truth-seeking perspective and thereby believe that *p* based on E.
> (iii) I believe that *p* based on E only if I believe that it is irrational for one to suspend judgement on *p* based on E.

(i) is the fact that I am adopting permissivism on the basis of difference in epistemic perspective, and (ii) is the fact that I'm adopting a live-and-let-live attitude on the present case. Given the consistency requirement (iii), the unstability arises between (i) and (iii): (ii) and (iii) together imply that I would believe that it is irrational to suspend judgement on *p* based on E, but it immediately conflicts with (i). After all, even though Kelly succeeds in avoiding the arbitrariness, he has no way of resolving the problem of unstability.

3.3. Implications on Peer Disagreement

My present concern is whether the above criticism on permissivism can have any influence on the problem of peer disagreement. What we have learned is that one cannot be a permissivist with a live-and-let-live attitude since this combination traps one into unstability. To evade the alleged unstability, we cannot help but abandon at least one of them. And we know that the live-and-let-live attitude is the motto of the Extra Weight View. So to speak, we are in front of a road which diverges into two directions: permissivism on the one hand, and the Extra Weight View on the other hand. Then, where does each road finally lead us?

Firstly, one might abandon the live-and-let-live attitude and hold on to his faith in permissivism. If I choose to follow this way, the right response for me to take after examining a permissive case is to suspend judgement on that issue among various doxastic attitudes which I regard as equally rational responses. Thus, for instance, when I am in front of a pill which has a power to randomly induce one of the doxastic attitudes which I regard as equally rational reacts, I should not swallow the pill. Even if I think I am rational whatever my judgement about the defendant will be, I should suspend my judgement about him. Even if I think that both T_1 and T_2 are equally rational ways to explain my patient's disease, I should suspend my diagnosis.[20] However, these are exactly what equal

20) Notice that this is epistemic duty, but not practical duty. Thus, as a doctor, I might prescribe a treatment indicated by either T_1 or T_2, though I am ignorant about which is the correct theory to explain the patient's disease. But, this decision is from practical consideration to increase probability to save a man's

weight theorists will demand. As we saw, the faith in permissivism and the extra weight attitude are two sides of the same coin. For this reason, if a permissivist abandons the live-and-let-live attitude and suspend his original judgement by giving equal weight to his peer's conflicting opinion, he would end up with inconsistency again. Generally speaking, it is irrational and unstable in its own way for a permissivist to suspend judgement on an issue which he regards as a permissive case.

As an alternative way, one might adhere to the live-and-let-live attitude but give up his faith in permissivism. However, if I cease to be a permissivist, then I cannot help but become a defender of uniqueness who might think that one's given evidence always indicates the unique doxastic attitude as the most rational response. Then, the following comes into question; is there anything unstable between the uniqueness principle and permissivism? The answer seems negative. If I truly accept uniqueness as being true, it also seems very unstable for me to cling to my original opinion in front of the conflicting opinion from my epistemic peer[21]. For instance, suppose again that I am a doctor and my patient is waiting my diagnosis. This time, however, suppose further that I truly uphold the uniqueness principle as a truth. Holding the live-and-let-attitude, I decided to maintain my original diagnosis even though I know that my peer has arrived at a different conclusion. Thus, we now have the following facts about my diagnosis.

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life, but not from my belief that certain theory is the correct one.

21) This problem was raised by Professor Kihyun Kim in the Peer Disagreement Seminar at SNU(2014 fall semester).

(i) I believe that there is only uniquely rational diagnosis for the patient's disease—explaining it by either T_1 or T_2—given my medical information.

(ii) Based on my medical information, I actually employ T_1 to explain his disease.

(iii) I would employ T_1 to explain the disease only if I believe that explaining it through T_2 is irrational(or less rational) given my medical information.

(i) corresponds to my belief in the uniqueness principle, and (ii) indicates that I'm adopting the live-and-let-live attitude on the present case. And (iii) reports the consistency requirement for (ii) to be satisfied. So far there seems nothing unstable. But the following psychological fact reveals the hidden inconsistency;

(iv) I recognize the fact that another doctor, who is my epistemic peer on this case, employs T_2 to explain the patient's disease.

Now, (iv) and (iii) together raise a doubt about (ii). Provided that either T_1 or T_2 is the unique way of explicating the disease, and it is already known to me that my peer has judged that T_2 is the right theory, my belief in the irrationality of employing T_2 in this case will lose its ground. This is because of the absence of further information who is more likely to make a mistake at this time. Having no idea whose diagnosis is correct, it is problematic for me to stick with my original opinion. Thus, even if we combine permissivism with the uniqueness principle, the problem of unstability

still remains.

We were standing on a crossroad divided into permissivism and the Extra Weight Theory. If we devote ourselves to permissivism and cease to hold the live-and-let-live attitude, we become permissivists who follow guidance from the Equal Weight View. In contrast, if we follow the live-and-let-live attitude and abandon permissivism, we are once again left with unstability between the two theories. As I see it, this gives us an important lesson in continuing the question about peer disagreement. The lesson might be summed up as follows; the Extra Weight Theory suffers from unstability whether it is combined with permissivism or with anti-permissivism. Indeed, it would be a mere leap of logic if we convict the Extra Weight View on the basis of present lesson. But it provides enough grounds to make us suspicious about the theory itself. We could not find significant relevance between uniqueness principle and the Equal Weight View, or between permissivism and the Extra Weight View. Nevertheless, through the controversy between uniqueness and permissivism, we come to discover a clue on the next controversy on peer disagreement.

III. A New Understanding Of Disagreement

The controversy we discussed in the preceding chapter implies that one of the theories on peer disagreement is suspicious. In the present chapter, I am going to look into the internal issue of peer disagreement in earnest. However, as I have explained, the problem of peer disagreement concerns the question about rationality in belief revision. Thus, it should be preceded by deliberation on belief itself. How should we best understand belief state? I would like to begin with this question. As we will see, there are different analyses on our belief state. But we have been totally uninterested in examining which is the proper theory about our belief state. As a result, I think, we were presupposing an inappropriate analysis on belief. Thus, my immediate concern is to correct our understanding on belief state. Then, I am going to defend the Equal Weight View under the modified view of belief state. As I will explain, the newly understood Equal Weight View enjoys more force against its competing theory than the original one does.

1. A New Understanding of Belief

1.1. Coarse-grained vs. Fine-grained

In the earlier discussion on uniqueness, we have seen two different perspectives on belief states. On the one hand, we have a simple and intuitive understanding according to which belief state is an all-or-nothing matter. As introduced, I called it the *triple system of*

belief. In terms of triple system, belief is divided into only three different states; belief, disbelief, and suspension. On the other hand, we have more elaborate theory which is called the *credence system of belief*. According to this, degree of belief state is represented by the so called *credence*—i.e. a figure from 0 to 1.

In discussing the problem of peer disagreement, many philosophers have followed the credence system rather than the triple system. The triple system is more commonly known as the *coarse-grained system of belief*. This labeling sounds quite negative because, I think, it reflects the criticism that belief state has been too simply divided under that system[22]. Critics against the triple system entertain a doubt that the theory will fail to specify certain kinds of belief states. For instance, they would have the following belief state in mind. Suppose I am watching a race between two horses, white and black. I see that the black horse gets slightly ahead of the white one when they cross the finish line. So I come to believe that the black horse wins the game. But I cannot feel confident of its winning inasmuch as the two horses seemed to me to finished the race almost simultaneously. In this case, it does not seem that I will be convinced that "the black horse won the race", much less that I will suspend my judgement about which horse won the race. According to the critics, this is the main drawback of the triple system. Contrary to this, the so-called *Fine-grained System of Belief* has been referred to as an alternative system. This system enables us to talk about doxastic states between suspension and belief, or between suspension and disbelief. Thus, my doxastic state when I almost believe, but not

22) That's why I prefer to introduce rather neutral term for it.

assure, that the black horse won the white by a nose corresponds to the state of giving credence of, say, .9 to the relevant proposition.

My question is whether the credence system really provides us with a better understanding about our belief state. Before discussing this question, it must be noticed what exactly motivates the credence system. It is sometimes said that while the triple system adopts qualitative interpretation about belief, the credence system introduces a quantitative analysis[23]. However, this terminology might lead to a misunderstanding. The triple system has been betrayed because it is considered to be unable to cover the broad spectrum of belief state. In response to this, the credence system came into spotlight in virtue of its quantitative system that can embrace various qualitative doxastic states other than belief, disbelief, and suspension of belief. Quantification of belief is just the method to accommodate various qualitative states of belief. In this regard, first, it is natural for us to expect that each value of credence should correspond to a specific qualitative state of belief. Besides, one doxastic state singled out by a certain value of credence is meant to be distinguished from the one picked up by another value of credence. However, neither is hopeful.

Let's begin with the problem of distinction between doxastic states indicated by different credences. For the credence system to be a genuine theory about belief state, numerical differences in credence should lead to qualitative differences in belief state. This, however, seems hopeless. The credence system makes it possible for us to talk about the doxastic state between belief and suspension, or between disbelief and suspension. If this is so, there is nothing to prevent one

23) Christensen(2007: 188, 213)

from introducing an excessively delicate unit of belief state. Thus, it is in principle possible not only to distinguish credence 1 from .5, but also .7 from .6999. Suppose that my credence for a proposition *p* is .7 and yours is .6999. Then, credence theorists should say that I am giving a stronger affirmation of *p* than you are by a degree of .0001. But what difference will be occurred by giving an additional credence of .0001 to a proposition? It is dubious that there will be a difference at all.

Our next concern is whether there always will be a corresponding doxastic state which is singled out by a certain value of credence. Under the credence system, without any additional constraint, belief might be divided into bits and pieces because credence can be infinitely splitted from 0 to 1. Then, it is in principle possible for one to give credence .4142135623⋯ to a certain proposition. What, however, does it mean for someone to believe that *p* to degree .4142135623⋯? Would it be meaningful to talk about his mental state? It is hard to see whether there can be any mental state corresponding to such a credence.

In response to the present doubts, some might attempt to ascribe these problems to our epistemic limit. Kelly once discussed an imaginable epistemic subject:

> Suppose that when we meet the Alpha Centaurians, they differ from us in only one important respect: they routinely take up doxastic attitudes towards propositions that are extremely fine-grained compared to our own. So, for example, the Alpha Centaurians really do have

> psychological states such as *believing to degree .5436497 that the Democrat will win*, or *believing to degree .5122894 that it will rain tomorrow*. I assume that this is a perfectly coherent possibility.[24)]

Let's see if the two problems I raised will be solved by assuming such a cognitive subject. I first asked whether an extremely small amount of difference in credence will bring a corresponding difference in our belief state. Indeed, in case of the Alpha Centaurians, it is possible to qualitatively distinguish between believing a proposition to degree .6999 and doing so to degree .7. In their mental system, difference in degree of .0001 is significant. But I can ask again whether the difference of degree $1/10^{10}$ will bring significant difference in doxastic state for the Alpha Centaurians. Moreover, I can also ask whether the difference of degree $1/10^{100}$, $1/10^{100}$, $1/10^{1000}$ will cause a significant difference in their belief state. Kelly might positively reply to all these questions. He might invoke a 'coherent possibility' for a subject to have such a fine-grained belief system. Although this seems an *ad hoc* way of answering my question, we can be tolerant on this issue and proceed to the next question. Unfortunately, it seems more difficult for Kelly to escape from the second problem. Suppose that you have an extremely sensitive mind like an Alpha Centaurian. Still, however, it would be somewhat dubious to say that you assign credence .4142135623… to a proposition. Thus, however finely grained our belief state might be, it

24) Kelly(2013: 300)—Though Kelly did not mean it as the answer to my question, it seems to be a possible approach to solve the problem.

does not look promising to split it up into an infinite amount of pieces and allocate different mental states to every such separated value of credence.

White once made a short statement about a relevant issue. He says, “perhaps our convictions do not, and even should not come in precise degrees, but rather cover vague ranges.”. However, he “ignore[s] these matters as they are not crucial here.”[25] As I see it, the present matter cannot be ignored in such a way. By assuming an improper sketch for our belief state, we will eventually initiate an unproductive discussion on the rationality of belief.

Indeed, my doubt on the credence system traces back to chapter II. In chapter II, I maintained that the credence system faces a problem not only with the uniqueness principle but also with permissivism.[26] Permissivists were the first to call the uniqueness principle under the credence system into question. According to their criticism, the uniqueness principle becomes an excessively stringent restriction on rationality. Against this, I have argued that the same problem can occur with permissivism. Unlike its name, permissivism brings an even more severe guideline on rationality. Although either the uniqueness principle or permissivism must be true, both of them seem to be unsustainable claims under the credence system. We cannot expect the system of belief with which neither uniqueness nor permissivism can be compatible to be a sound theory of our belief state.

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25) White(2005: 457: note3)
26) Section 1.1 on this paper.

1.2. The Triple System for Probabilistic Statement

My present concern is to show that, when it comes to our doxastic state, we can only talk about belief, disbelief, and suspension of belief and these would be sufficient for our discussion. If the triple system can explain the seemingly partial belief, we no longer have to adopt an artificially quantified system that brings disharmony with the essence of belief state. It seems, however, that we actually talk about doxastic states existing between belief and suspension, or between disbelief and suspension. As I see it, it is probabilistic judgement that we have actually been meaning.

Imagine a subject, S, who is concerned with whether or not *p* is true. After examining the relevant evidence E, S becomes quite confident that *p* is true but still hesitates to give full credence to it. In this case, which doxastic state can be assigned to S? As for advocates of the credence system, it will be a certain value of credence which is bigger than .5 and smaller than 1 that corresponds to the present doxastic state of S. Thus, they might say that S believes *p* to degree, say, .7. However, is this really the credence that S assigns to *p*? I take it that what S really assigns to *p* is not credence but probability. For instance, S might believe that *p* is true with—subjective or objective—probability .7 given E. I maintain that this is what really happens and will possibly happen. If this is so, we do not need to introduce qualitatively different doxastic states other than belief, disbelief, and suspension of belief any longer. When S is assigning probability .7. to *p*, he is affirming a statistical statement that *p is true with probability .7*. Then we can employ only three

kinds of doxastic states in explaining S's belief state. Though it is not an independent theory from the triple system, let me call it the *Triple System for Probabilistic Statement* for the sake of clearness in the subsequent discussion.

There are several points to be clarifed. First, some might question the difference between credence and probability. Indeed, there are some philosophers who do not draw a clear line between the two concepts[27]. Are they just same thing with different name? To answer this question, the exact definition of credence or probability must be clearly given. It is relatively easy to define what probability is. Whether subjective or objective, probability is the degree of chance that is objectively quantifiable. If I roll a six-sided dice, the object probability that it will land on 3 is 1/6. On the other hand, the definition of credence is not as clear. What is only said is that credence is the degree of belief. Whatever it is, let's assume for the moment that credence is identical to—or interchangeable with—(subjective) probability. Then, there should be the following relation (R) connecting the two concepts:

> (R) It is rational for S to give credence *n* on *p* given E if and only if it is rational for S to give (subjective) probability *n* on *p* given E. ($0 \leqq n \leqq 1$)

Now I want to discuss whether (R) is true or not. The outlook is negative. (R) is a biconditional sentence. This means that (R) is true if and only if a pair of conditional sentences consisting it are all true:

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27) 권홍우(2014; 72; note4); 김남중(2014; ch.3, 4)

(R1) If it is rational for S to give credence *n* upon *p* given E, it will also be rational for S to give (subjective) probability *n* upon *p* given E. ($0 \leqq n \leqq 1$)

(R2) If it is rational for S to give (subjective) probability *n* upon *p* given E, then it will also be rational for S to give credence *n* upon *p* given E. ($0 \leqq n \leqq 1$)

(R1) is a conditional sentence whose antecedent is the left side of (R) and the consequent is the right side of it. (R2) is a conditional with the reverse antecedent and consequent. To prove against (R), it will be enough to provide a counter-example against either (R1) or (R2). My aim, however, is to demonstrate that neither is true.

The first case I want to look into is when n is .5. In this case, (R2) is true; when you rationally give probability .5 to p, it would be rational for you to assign credence .5—i.e., hold suspension—to p. For instance, imagine that you flip a coin. It is rational for you to believe that the probability that it will land on heads is .5. In accordance with (R2), you can rationally suspend judgement about whether it will land on heads or tails. So far, so good. Then, however, what about (R1)? Suppose that it is rational for you to suspend judgement on p. Then is it also rational for you to assign subject probability .5 to p? Maybe it is, maybe it is not. There are two possible situations where suspension on p is required: first, when the relevant set of evidence E supports p with probability .5, and second, when E is far from enough—or is absent at all—to make a judgement about p. Either case is a sufficient—but not a necessary—condition for one to rationally suspend one's judgement. Thus, it is

not always rational for you to give probability .5 to the relevant proposition p given E even if you rationally suspend your judgement about p given E. Then, we can find a case in which (R1) fails to be true: it is when the given set of evidence E is so insufficient that one cannot make a judgement on the relevant issue, p. Suppose that you are a meteorologist. You were receiving meteorological data for tomorrow's weather forecast. When the measuring instruments had transmitted only 20% of the total data to your computer, it broke down and you lost the rest of the data. How do you respond then if someone asks you whether it will rain tomorrow? You cannot say anything before you get additional information because you do not know if it will rain tomorrow at all. When there is only an insufficient set of evidence about *p*, what S ought to do is to suspend his judgment about whether or not *p* is true. Now, with how much probability could you rationally expect tomorrow's rain as a meteorologist? Should you give probability .5 to the proposition "it will rain tomorrow" because it is rational for you to give credence .5 to the same proposition? In other words, would you affirm the propositon "the probability of tomorrow's rain is .5"? You would not. As your meteorological information is too meager to infer tomorrow's weather condition, you should suspend your judgement. This directly rebutes the claim of (R1).

The next case I want to introduce will be the counter example against (R2). There might be a case in which S rationally gives probability *n* upon *p* given E, but it is certainly inappropriate for S to believe that *p* to the same degree *n* given E. Suppose that I am playing a dice game. Before throwing the dice, I wager on 3 as

the outcome of this roll. So your concern is whether "it will land on 3"—say, p. In this case, my subjective probability which is rational to give upon p is $.1\dot{6}$ in respect that the object probability of a fair dice's landing on 3 will be $.1\dot{6}$. If this is so, should I believe that p to degree $.1\dot{6}$? It seems not. According to the credence system, believing a proposition to such a low degree corresponds to the doxastic state of disbelief in that proposition. So if $.1\dot{6}$ is the rational credence for p, I should not believe that the dice will land on 3. Indeed, then, I should not have betted on 3. However, this is far from truth.[28] This directly reveals that (R2) is false. I hereby rebute the alleged relation between credence and probability. My conclusion is that the two concepts cannot be identified nor are interchangeable.

28) Actually, the right attitude for me to take in this case is suspending my belief. I should suspend believing whether the dice will land on 3 or not. I know that it will land on a certain side between 1 and 6, but I have no idea which will be the actual outcome given my evidence. Therefore, I should give credence .5 to the corresponding proposition p and suspend my judgement about p. As I see it, this distinction between probability and credence will explicate the lottery paradox. Suppose that there is only one winning ticket among 1000 fair ones, from L_1 to L_{1000}. If I have one of them, say L_1, it is rational for me to believe that I will not win the lottery because I know that the winning probability of L_1 is only .001. For the same reason, it is rational for me to believe that owners of L_2, L_3, L_4 ... L_{1000} will not win the lottery. This means that I should believe that any ticket will win. But this is absurd because I know that one of L_1, L_2, L_3 ... L_{1000} will be the lucky one. This paradox can be resolved as follows. The rational probability I should assign to the proposition "L_1 is the winning ticket" is .001. In contrast, I should not disbelieve the same proposition by assigning such a low amount of credence. I know that there is a winning ticket but I do not know which is the one. So I should suspend my judgement about whether or not L_1 is the lucky one. Again, the credence I should assign to "L_1 is the winning ticket" is .5.

So I am going to proceed our discussion about peer disagreement in terms of probability.

Nevertheless, some critics might want to emphasize necessity of discussing our issue in terms of credence. Indeed, there are some cases in which the credence comes into question at first sight. I can easily come up with a possible situation they might have in mind:

> Charles, a student of Logic, was asked to determine whether an argument is valid or not in the final exam. Through a series of processes determining validity of the argument in question, he concluded that it is deductively valid. After the exam, Charles found that Jane, one of his classmates, had a different opinion. Her answer was that the argument is deductively invalid. Inasmuch as Jane is his epistemic peer regarding the present issue, Charles has to reduce his original confidence in his belief that the given argument is valid.

Let α be the very argument that Charles had encountered in the final exam, and t_1 the time point when he was exposed to Jane's different judgement about α. Before time t_1, Charles rationally believed that α is valid. But after t_1, rationality requires Charles to change his doxastic state regarding that belief. Then, in precisely what respect should he modify his belief about α at that time? As critics might say, it would not be his probabilistic judgment about its validity. If Charles truly believes that α is deductively valid, he should do so with probability 1. This is because a deductive argument is valid in virtue of its form, but not of its contents. That is why

validity of an argument is necessary: in terms of possible world semantics, if an argument is valid, it is so in every possible world. Thus, the probability of an argument's being valid, so to speak, is 1 or 0. As long as Charles believes that α is valid and he understands the intrinsic nature of validity, he should believe that α is valid with probability 1. In this respect, advocates of the credence system might insist that Charles must reduce initially high degree of belief that α is valid after hearing Jane's different judgement about α. At first glance, it seems plausible to assume as such.

However, I want to introduce another possible approach from a reliabilistic point of view. We can question how accurate Charles' belief-forming process on this issue is. It will be calculated on the basis of his track records of evaluating the validity of an argument in the past. If his success rate was .9, the probability of his being right in determining the validity of a newly given argument will be .9. Although his past track record tells us that he is quite skillful at evaluating an argument, the disagreement with Jane implies that he might have made a mistake this time. Then, it becomes clear in what respect Charles has to change his belief about α at t_1. At that moment of disagreement, Charles needs to adjust his initial *reliabilit y*[29] of his belief-forming process. He should reduce the initially high degree of reliability his inference has enjoyed before time t_1. Then, we do not need to talk about credence anymore. All we have to concern is probabilistic judgement again. This, I think, is a more natural way of explaining the expected change in Charles' belief. To sum up, when p is "α is deductively valid", it can be said that

29) Goldman(1979)

Charles and Jane had a disagreement on their probabilistic judgement on *p*: Charles believed that *p* with probability 1 and Jane with 0. After hearing Jane's different opinion, Charles has to suspend his probabilistic judgement about *p*. This is the belief revision required by the disagreement. In addition to this, however, Charles is also expected to modify his belief about the reliability of his own belief-forming process: he ought to decrease the probability that his answer will be correct after noticing the disagreement. Here again, we cannot find any reason to invoke credence.

Still, some might want to insist that we can identify or replace reliability with credence. Indeed, one's judgement about how reliable a belief-forming process is affects one's judgement about whether a belief acquired through that process will subsist or not. For instance, let *i* be the inference process that Charles employs in order to determine the validity of α. Provided that *i* generally leads him to a correct judgement, it is rational for Charles to assign a high reliability upon *i* before t_1. But at time t_1, he comes to realize that Jane arrived at a different judgement about α through a more or less reliable process than his. Then this fact implies that *i* might lead Charles to a false belief this time. Thus, the accuracy rate of *i* will decrease to, say, .5 since that time. In this regard, it is hard to deny the relationship between reliability of a belief-forming process and the belief produced by that process. It does not seem, however, that the first determines the latter. Suppose again that Charles has a reliable process which will lead him to a true judgement about the validity of an argument with probability .9 and he knows this fact. Using that process, Charles comes to believe that α is a valid argument. On the

other hand, it is possible for Jane who is using an identically reliable process and is aware of that fact to suspend her judgement about the validity of α. She might be so careful that she cannot get rid of her doubt that the process might lead her to false belief.

There is more conclusive reason to argue that we cannot identify the two concepts. Think about the peer disagreement case. In terms of the credence system, epistemic disagreement arises when peers sharing the same evidence believe the same proposition with differing degrees of credence. However, if credence is reliability, disagreement disappears; now, peers will differ in reliability of their belief-forming process. Difference in reliability implies the fact that one's epistemic ability is inferior than the other. After all, they are not even peers of each other at all.

1.3. The Explanatory Power of the New Triple System

Now, I want to discuss some advantages of adopting the triple system for probabilistic judgement. In section 1.1 of this chapter, I pointed out some problems of the credence system. We can avoid these problems by switching the discussion from credence to probability.

The first one was the problem of distinction. The credence system will split up our belief state so fine that we will not be able to distinguish doxastic states singled out by different values of credence. What is the difference between believing a proposition to degree .7 and to .6999? Credence theorists were not able to answer this question. Under the new triple system, this does not matter any

longer. Now, we do not have to assign a different doxastic state to every probability we might refer to. Suppose that you and I differ in the opinion on *p*. If we are in conflict in terms of credence, we should be in different doxastic states regarding *p*. However, if our conflict consists of different probabilities we assign to *p*, we might be in the same doxastic state, i.e. *belief*. For instance, I might believe that *p is 70 percent true* and you might believe that *p is 69.99 percent true*. The only difference is in the content of our belief. Indeed, we are in homogeneous doxastic states.

The new system also contributes to solve the second problem I pointed out, which is the problem of infinity: the credence system splits up our belief state into infinitive pieces. As a result, we are invited to imagine a certain numerical value of credence whose corresponding doxastic state is beyond our conception.

Consequently, credence theorists suffer from an explanatory burden about some questions. What does it mean for a subject to believe a proposition with credence like .4142135623…? How could someone ever entertain such a credence? Suppose that someone, say S, actually reports her doxastic attitude about *p* as being located in the very credence in question. Can S explain what it means to be in such mental state? Or is there any method for us to possibly identify S's current belief state? It seems very difficult to answer these questions. If we adopt the new understanding of our belief state, these questions disappear. Suppose that S believes a statistical statement asserting that *p is true with probability .4142135623…*. Here, I cannot see anything awkward about her doxastic state. While it is difficult to explain what it means to assign credence .4142135623… to *p*, it does not seem as

difficult to explain what it means to affirm *p* to probability .4142135623⋯. We can, at least, understand what doxastic state S might be in when she assumes *p* with probability .4142135623⋯.

The last problem was that the quantified system of belief collides not only with the uniqueness principle, but also with permissivism. Under the credence system, the uniqueness principle becomes extremely strict to the extent that every other credence even slightly different from the uniquely rational credence will be considered as irrational. Permissivism, likewise, struggles with the same problem. They will have difficulty demarcating the range of rationally permissible credence. Although either uniqueness or permissivism must be the case, the credence system can get along with neither of them. The triple system for probabilistic judgement will not raise the same kind of problem. Let *p* be any proposition with which we are concerned, and *h* the relevant statistical statement asserting that *p is true with probability n*($0 \leq n \leq 1$). Suppose first that uniqueness is true and that believing *h* is the uniquely rational attitude given E. In this case, it would be irrational for one to believe *not-p* or suspend judgement about *p* given E. We will not accuse this restriction of excessiveness any longer.[30] Suppose now that permissivism is true and that this is a permissive case. Then, we

30) There remains another point to be clarified. Suppose that the uniqueness principle is true and that it is uniquely rational for one to believe that *p is true with probability .7* given E. Then, it would be irrational to believe other statistical judgements about *p*. For instance, it would be irrational to believe that *p is true with probability .6999* given E. While the difference of .0001 in credence is meaningless, the same amount of difference in probability is significant

might be equally rational even though, for instance, I believe *h* given E, and you suspend judgement on *h* given E. Here, the only irrational attitude for someone to take given E is to disbelieve in *h*. The demarcation problem we once worried about does not arise any longer. Thus, we can conclude that it is preferable to adopt the triple system rather than the credence system.

2. A New Understanding of the Disagreement Problem

By switching the discussion to probability, not only do the alleged merits of the credence system remain but its drawbacks can also be resolved. Now, it does not seem that there remains any reason for us to retain the mysterious concept of credence. From now on, adopting the triple system for probabilistic judgement, I would like to discuss howwe can appreciate the problem of disagreement and the real lesson from the Equal Weight View.

2.1. The Equal Weight View under the Triple System

If the credence system has unacceptable consequences, not only the system itself but also the theory assuming that system will be threatened. However, Kelly insists that equal weight theorists have compelling reasons to accept the credence system rather than the triple one[31], and Cohen agrees as well[32]. In effect, almost every discussion defending the Equal Weight View has assumed that belief has degrees. Following the existing understanding, therefore, the

31) Kelly(2010: ch.2)
32) Cohen(2013: 99)

problem of epistemic disagreement was about how the disputants should reconcile their different values of credence that they assign to the same proposition based on the same body of evidence. And equal weight theorists have required the disputants to split the difference between the two credences.

Kelly has claimed that without adopting the fine-grained system of belief, the Equal Weight View is not likely to subsist. He mentioned the problem that equal weight theorists will inevitably encounter when they choose to follow the coarse-grained system of belief. One that has been called into question is, in general, a peer disagreement case between one believing that *p* and the other suspending judgement about *p*[33]. For the sake of convenience, let Yelena be the one who has agreed with *p*, and Pyrrhon be the one who has suspended judgement about this issue. Of course, Yelena and Pyrrhon are epistemic peers of each other who share the same set of total evidence E, and they are equally matched in their reasoning ability. According to Kelly, equal weight theorists have trouble reconciliating the two doxastic states held by Yelena and Pyrrhon. According to the theorists, Yelena and Pyrrhon would be required to retreat their original opinions by splitting the difference with each other. However, is it possible for them to reach a compromise? Is compromise possible at all? Generally speaking, it seems difficult to

33) In his paper, Kelly suggested a disagreement case between an atheist and an agnostic. While atheists deny that God exists, agnostics suspend their judgement about God's existence. However, as I see it, this instance is no good in our discussion. It is because we do not know what can be positive or negative evidence for God's existence, or how it can—if at all—be given to us. To avoid such an irrelevant argument, I reconstituted the case as above.

explain what the middle ground between belief and suspension—or, between suspension and disbelief—is. Kelly insists that the equal weight theorists can evade this problem just by adopting the credence system of belief. Suppose now that Yelena believes that *p* to degree .9 and Pyrrhon to degree .5 based on the same evidence. In this case, all they have to do after being exposed to the conflicting opinions of each other is to split the difference between their credences respectively assigned on *p*. Therefore, both Yelena and Pyrrhon are required to adjust their initial credence to .7. This is what Kelly expects from equal weight theorists and what they have actually agreed with so far.

If Kelly is right in insisting that the Equal Weight View cannot be maintained without introducing the credence system, and if credence is an untenable concept about belief, this will bring a lethal crisis in the theory itself. However, if we follow the alternative analysis about belief, the problem of epistemic disagreement and the reply from the Equal Weight View about the problem should be understood in a completely different way. Now, difference in credences will be understood as difference in probabilistic judgements. Suppose that you and I are peers of each other and, on the basis of E, I believe that *p* is true with probability .3 and you believe the same with probability .7. In this case, our probabilistic judgements are incompatible with each other: while I would affirm the probabilistic statement that *p is true with probability .3*, you would not. Understanding the disagreement in this way, what we have to do after noticing the conflicting opinion of each other? Should we split the difference between the probabilities we have initially assigned to *p*'s

being true and believe that p is true with probability .5? This is absurd. Let's approach this question in this way. We did a division and arrived at different quotients; my answer was 43 and yours 45. Inasmuch as we are epistemic peers regarding arithmetics, we decided to split the difference. It would be completely absurd, however, if we converge on 44. The proper attitude is to suspend one's judgement about the division question. This will be a genuine way of giving equal weight to our different answers. Likewise, splitting the difference in our probabilities is ridiculous. We should suspend judgement about whose probabilistic judgement is right.

Assuming this, think about the Charles-Jane disagreement. Before time t_1, Charles believed that α was valid with probability 1 and Jane believed the same with probability 0. At t_1, Charles came to encounter a different probabilistic judgment from his epistemic peer, Jane. Suppose that after t_1, Charles reduces the probability of α's being valid to .5. It does not even make sense, however, that a deductive argument is valid with probability .5. The right thing to do is to suspend judgement about whether the right probability of α's being valid is 0 or 1. Then, let's turn back to the Yelena-Pyrrhon disagreement. What would be the right command of equal weight theorists in this case? According to my suggestion, Yelena and Pyrrhon ought to suspend judgement between believing p and suspending p.

The consequence so far is as follows. Both critics and advocates of the Equal Weight View have misunderstood what epistemic disagreement is and which creed is advocated by the Equal Weight View. This is because they have adopted a problematic

analysis about our belief state without any reflection. By quantifying our belief state, we have discussed the disagreement between different credences and the way in which we can reconciliate the dissonance. However, as it turns out, credence ends up in a labyrinth. Our doxastic state can be—and should be—understood under the triple system. The triple system combined with probabilistic judgement offers us a better understanding of epistemic disagreement and the Equal Weight View. When a pair of epistemic peers disagree with each other, the dissonance does not consist in their different degrees of belief, but rather in their different doxastic states. Thus, what is required for the disputants as rational subjects is not to split the difference in their credences, but to suspend their initial judgements about the issue.

2.2. Swamping and Bootstrapping

It is expected that the Equal Weight View employing the triple system of belief will contribute to resolving the doubts that have been raised upon the original theory. Above all, I want to focus on the problems that have been advanced by Kelly. The gist of his argument against the Equal Weight View is that the theory will provide us an inappropriate understanding of rationality. Under this theory of belief revision, he claims, rationality might become regressive on the one hand, and it might be propagated in an indiscriminate way on the other hand. Let's first look into the problem of regression in rationality:

(i) Assume that it is uniquely rational to believe that *p* to

> degree .7 given E. S_1 evaluated E in a proper way and gave credence .7 to *p*. In contrast, S_2 mistakenly underestimated E and gave credence .3 to *p*. According to Equal Weight View, it would be rational for S_1 and S_2 to split the difference and converge on credence .5.

Kelly manifests his dissatisfaction of the Equal Weight View in that it encourages the same amount of belief revision in S_1 as well as S_2 when only one of them, i.e. S_2, deserves to be blamed for the poor performance in evaluating E. Before splitting the difference, S_1 was in a completely rational position whereas S_2 was far from that. Nevertheless, according to equal weight theorists, S_1 is required to give the same weight to the inappropriate judgement of the opponent once she gained psychological evidence about her peer's different opinion even though she was initially perfect in estimating the original—non-psychological—evidence. Kelly said that "E gets completely swamped by purely psychological facts[about what S_1 and S_2 believe]."[34] As a result of *swamping*, while the bad evaluator benefits from the belief revision, the good evaluator becomes a victim of the revision. This seems absurd.

Another problem is that the Equal Weight View seems to encourage an indiscriminate propagation of one's rationality. Kelly concerns that one might be able to enhance one's rationality just by properly reacting to one's high-order evidence. This is referred to as the problem of *bootstrapping*. Notice that there are two kinds of high-order evidence: while I can access others' minds by comparing

34) Kelly(2010: 124)

notes with them, I can also access my mind through self-reflection. There are two kinds of bootstrapping that correspond to this classification. Let's first examine the bootstrapping that might arise in a disagreement between two subjects:

> (ii) Assume that it is uniquely rational to give credence .3 to *p* given E. However, both S_1 and S_2 mistakenly overestimated E and came to believe *p* to degree .7 and .9, respectively. According to the Equal Weight View, after acknowledging the disagreement, it is rational for both of them to split the difference and converge on credence .8.

Notice that both parties to the dispute failed to rationally estimate the shared evidence. Nevertheless, Kelly points out that each of the disputants becomes rational just by splitting the difference in credence with each other. Generally speaking, whenever epistemic peers have different credences about the same proposition, they can enhance their own rationality just by averaging out all the credences, whether their initial credences were rational or not. However, can we increase our rationality in such an unsophisticated way?

In addition, Kelly imagines another possible case of bootstrapping that might occur in an individual's mind:

> (iii) S believes that *p* to degree .7 based on E. Sooner or later, S accesses the psychological fact that '*I believe that p to degree .7 based on E*'. Right after S observes the high-order evidence about herself, the Equal Weight View would require S to split the difference and converge on

credence .7 again.

In the above case (iii), the same problem is being brought into question. The only difference is that, at this time, a subject is said to be engaging in bootstrapping all by herself. Notice that S increases her own rationality just by looking into her mind. A reflection will allow S to access the psychological facts about her current doxastic state and the reliability of her belief-forming process. Now, she is aware of the fact that *I give credence .7 to p given E* and that *I am generally reliable in forming a belief on this kind of issue*. What would be a rational response to this additional information? According to the equal weight theorists, S ought to adhere to her initial credence .7 because, as S refers to different opinions of other subjects based on their reliability, she might be able to refer to her own opinion based on the fact that *I'm generally a reasonable performer of belief-forming processes*. In this way, however irrational S was in estimating the original evidence, she becomes rational just by holding fast to the very credence she once assigned upon p. From this point of view, the Equal Weight View might be a source from which we might draw rationality in a totally irrational way.

To be a plausible theory about rationality in belief revision, advocates of the Equal Weight View must find a way of dealing with the problem of swamping and bootstrapping. Then, how can we cope with these problems? As I see it, all the above-suggested cases from (i) to (iii) are adopting the untenable system about our belief state and thereby misunderstanding what epistemic disagreement is and how equal weight theorists should answer that problem. Now, I want to

provide a reinterpretation of those cases based on a correct understanding about our belief state. First, let's go back to case (i):

> (i*) Assume that the objective probability of *p* given E is .7. S_1 evaluated E in a proper way and thereby believes that *p* is true with probability .7 given E. However, S_2 mistakenly underestimated E and thus concluded that *p* is true with probability .3 given E. Now, it would be rational for S_1 and S_2 to suspend judgement about how probable *p* is true given E.

The problem with which we are concerned in (i) is that the theory requires S_1 to recede from the fully rational doxastic state that she has held right before she met her peer, S_2, who made a mistake in forming a belief. Now, what is commanded by the Equal Weight View is not to split the difference between different credences, but to suspend one's probabilistic judgement about the current issue. Then, in what ways does it differ from suspending one's judgement on *p* as a result of splitting the difference with one's peer? As we saw, in (i), S_1 is required to turn back to total ignorance about the issue despite all the relevant evidence she has. Contrary to this, in (i*), she is just required to suspend the judgement on whether her probabilistic judgement is correct or not. Here, E will not be swamped by the psychological fact about S_2. Regression of rationality does not arise any longer.

What about the problem of bootstrapping, then? The two types of bootstrapping cases can be modified as follow:

(ii*) Assume that the objective probability of *p* given E is .3. Both S_1 and S_2, however, mistakenly overestimated E and came to believe that *p* is true with probability .7 and .9, respectively. Now, if they meet and compare their notes, it will be rational for the two to suspend their judgement about with which probability *p* is true given E.

(iii*) S believes that *p* is true with probability .7 given E. Sooner or later, S accesses the psychological fact that *I believe that p is true with probability .7 given E*. Now, the rational probability that S ought to assign upon *p* given E right after she observes the high-order evidence about herself will be .7 again.

The problem in cases (ii) and (iii) was that a subject might increase her rationality just by appropriately reacting to the given psychological facts about peers or about herself. Do the modified cases suffer from the similar problem? They do not seem to. Let's compare (ii) and (ii*) first. When we talk about credence, S_1 and S_2 cannot help but end up with irrational beliefs as a result of splitting the difference in credence, for the average of initially irrational credences will still be irrational. When we talk about probability, suspension of belief is all we need to do. As a result, S_1 and S_2 stop holding irrational beliefs for the present. This does not propagate their rationality any more. It is said that rationality consists in discharging the epistemic duties of pursing what is true and avoiding what is false. In case of (ii*), S_1 and S_2 are satisfying the latter duty by conceding that they might be

wrong in estimating E and suspending their judgement. Now, it seems that they increase their own probability in a quite sensible way.

The problem of intrapersonal bootstrapping raised in (iii) can be resolved in the same way. Let E* be the psychological fact that *I —i.e. S—believe that p is true with probability .7 given E* and let *t* be the time when S gains E*. There is nothing irrational for S to adhere to her initial probabilistic judgement that *p is true with probabilistic .7 given E** after *t*. To keep believing something that one has believed is not an underhand way of propagating rationality. Rather, it is what rationality minimally requires. Therefore, propagation of rationality does not occur any more.[35)]

3. Further Considerations

So far, we have seen that our newly advanced theory regarding belief revision will succeed in providing a rational guideline for typical cases of peer disagreement. Despite its explanatory power, however, we might need further discussion in order to examine the plausibility of the theory. Presumably, critics might challenge the new theory in various respects. Above all, I can find two urgent problems that could

35) The only thing we have to concern in (iii*) is whether S increases her reliability—the probability that her original opinion will be turned out to be true. Let *i* be the belief-forming process that S uses in order to arrive at the judgement about *p* given E. Could our additional information, E*, be used to raise the rationality of *i*? It definitely cannot, for the reliability of *i* will be determined by the rate that S gains true beliefs using *i*. However, it is still unknown to S whether the currently inferred belief about *p* is true or not. Thus, S will not use E* to raise the rationality of *i* or confidence about her judgement about *p*.

undermine the theory. These are the suspicions that have been constantly raised against the Equal Weight View. Contrary to the problems which we have discussed in the preceding section 2.2, these suspicions are not likely to be resolved just by introducing the triple system for probabilistic statement.

3.1. Special Disagreement Cases

The first doubt is that the Equal Weight View dose not seem to be a general answer to the problem of epistemic disagreement. There might be various situations in which peers are in disagreement other than the typical cases we have discussed so far. If our view fails to cover the diverse cases, it cannot be maintained as a general theory of belief revision.

The first case I want to examine is when all the parties to the dispute actually respond to their shared evidence in a proper way. This case seems bring no trouble if we adopt the credence system about belief state:

> (iv) Assume that it is rational to believe that *p* to degree .85 given E. Both S_1 and S_2 did well in evaluating E and they came to believe that *p* to degree .8 and .9, respectively. According to the original version of the Equal Weight View, S_1 and S_2 are required to split the difference in their credences and converge on the mean, i.e. credence .85.

Let me rewrite the above case in terms of probability:

(iv*) Assume that the rational probability of *p* given E is .85. Both S_1 and S_2 evaluated E and came to believe that *p* is true with probability .8 and .9, respectively. Now, S_1 and S_2 are required to suspend the judgment about with which probability they should believe that *p* is true given E.

Indeed, probabilistic judgements from S_1 and S_2 are very close to the objectively rational probability of *p* given E. For this reason, some might want to say that they are rational enough in evaluating E. Seeing things in this way, it becomes dubious if it is really rational for them to renounce their original probabilistic judgements and hold suspension about the issue[36]. In order to discuss this matter, we need to know what kind of probability is being said. If S_1 and S_2 are assigning subjective probability to *p*, disagreement does not arise. Since subjective probability will be suggested with vagueness, both of them will affirm that *p* is highly probable given E. In the above instance, however, S_1 and S_2 are concerned with objective probability of *p* given E in respect that they attempting to calculate the accurate value of probability. If this is so, it does not seem really permissible for one to judge that *p* is true with probability .8 or .9 on the basis of E. Under the credence system of belief, approximate values of credence might be regarded as kindred doxastic states. Thus, it might be equally rational for one to believe that *p* to degree .85 as well as to degree .8. However, this is not true in the case of probabilistic judgement. Let's imagine a detailed version of (iv*). Suppose that

36) I thank Professor Kihyun Kim for suggesting this problem.

there is a box which contains 100 balls; only 15 of them are white and the remaining 85 are black. Being aware of this information, S_1 and S_2 are going to randomly select one ball from the box. Now, let *p* be the proposition that "a black ball will come out." Then it will be uniquely rational to believe that *p* is true with probability .85. However, S_1 comes to believe that *p* is true with probability .8, and S_2 does so with probability .9. In this case, neither of their probabilistic judgements can be regarded as being rational responses to their evidence. There is nothing absurd about requiring them to suspend their original judgements.

Let me move on to the next case that interests me. We can imagine a disagreement case in which one of the disputants might fully trust herself to be the right evaluator of given evidence. The following is an example of the *Extreme Restaurant Case* suggested by Christensen. He imagines a situation in which my friend and I had dinner in a restaurant:

> It's time to pay the check, so the question we're interested in is how much we each owe. We can all see the bill total clearly … and we further agree to split the whole cost evenly …. I do the math in my head and become highly confident that our shares are $43 each. Meanwhile, my friend does the math in her head and[37] … becomes confident that our shares of the check are $450—quite a bit over the whole tab. Here, I think that I need not significantly reduce my confidence in my $43 answer, or

37) Christensen(2007: 193)

raise my very low confidence in $450 answer.[38]

According to Christensen, 'I' can rely on what is called the *common-sense check* in order to disregard the ridiculous opinion of 'my friend'[39]. What does he mean, then, by common-sense? In order for something to be a common-sense, it should first be an inference with an extremely high degree of reliability. Second, this inference should be independent from the reasoning that one used to derive her conclusion. For instance, that "the share cannot be greater than the whole bill[40]" is common sense. However, as 'I' see it, the share of 'my friend' is much bigger than the total bill and 'I' cannot find any reason for 'my friend' to implement the same kind of check. Thus, 'I' can ignore 'my friend' for this time only.

At first glance, this suggestion from Christensen might seem plausible. However, I wonder if one party to the dispute can attribute the present disagreement to the opposite party in such an easy way. Indeed, what he calls the common-sense check might be another field of disagreement. If 'I' truly respect 'my friend' as my epistemic peer, 'I' should expect that 'my friend' will have the same check that 'I' do. Also, if 'I' truly regard myself as a peer of 'my friend', then 'I' cannot be sure that 'I' did not commit the same kind of mistake in doing common-sense check. Christensen assumes that the inference we use in common-sense check is extremely reliable. However, it is undeniable that we are actually likely to commit a mistake even when we engage in a straightforward inferential process. Thus, 'I' should

38) Christensen(2007: 199)
39) Christensen(2007: 201)
40) Christensen(2007: 201)

suspend the judgement for the time being after 'I' find a different judgement of 'my friend'.

It might seem regressive to abandon the apparent truth due to apparent falsehood. When my peer and I disagree, however, my confidence that my peer must have made a mistake in deriving her conclusion would not justify myself to adhere to my opinion. We commonly worry about errors that might be included in our belief forming process even when we gained a true belief through a wonderful process. Also, we commonly feel confident about our conclusion even when we committed a great mistake in arriving at that belief. Confidence is not an indicator of truth. Thus, I should suspend my judgement even if I feel confident that my peer is totally wrong. As long as we are epistemic peers of each other, we do not know who made a mistake without further information. It will not be too late for me to return to my original opinion after I get additional information that reveals her inferential mistake.

3.2. The Swamp of Skepticism

The last and notable problem raised against the Equal Weight View is the doubt that the theory would encourage skepticism. As we have seen so far, the Equal Weight View commands us to suspend our judgements in every peer disagreement case. This guidance might be conflicting with our epistemic duty. As cognitive subjects, it is our duty not only to avoid what is false but also to pursue what is true. Indeed, a conservative attitude of suspension is loyal to the former purpose: one could evade false belief on every issue about which she

is conflicting with her peers. However, this disturbs us to pursue the other goal: we will lose quite some amount of true beliefs just by meeting our peer with a contrary opinion. Ultimately, the theory seems to lead us into the swamp of skepticism by recommending suspension on every disagreement case. Skepticism is an old problem in epistemology. A theory is not epistemically recommendable if it is defenseless against the threat of skepticism. Would it be an obstacle in the present issue again? Elga and Chirstensen have attempted to make a breakthrough. Let's see if their answers can be helpful.

Elga refers to this problem as the *Problem of Spinelessness* in that universal suspension would make us spineless in having our own opinion[41]. He observes that there are two different kinds of peer disagreement: one pure, the other messy. When it comes to a pure disagreement case, each party to the dispute is able to entertain a consideration independent from the currently disputed issue in order to judge whether the other party is one's epistemic peer or not. Disagreement in arithmetics is a representative case. In the extreme restaurant case, for instance, 'I' can determine whether 'my friend' is my epistemic peer or not in the light of her past track records in arithmetics. 'I' do not have to bother with the present case we are conflicting with each other. In contrast, it is not that easy to estimate the epistemic status of others in messy cases. Messy disagreements are likely to take place in such fields like philosophy, ethics, politics, and so on. Disputants of this type of disagreement have trouble arranging independent reasoning in order to determine whether the opposite party is one's peer or not. This is because all the past issues

41) Elga(2007: 492-494)

they had confronted are tangled up with the present case they are presently conflicting about. Elga imagines an instance of a messy disagreement in ethics. Suppose that you and I are having a conflict concerning an ethical issue. And I am not yet aware of your epistemic state. For me to confirm that you are my epistemic peer on this issue, I need to look over the other issues we had encountered so far in ethics. However, ethical issues are knotty problems; my opinion about one issue is closely related with my opinion about other issues. Due to this entanglement, a conflict in an issue is likely to continue to almost every other ethical issues. But if we have usually disagreed on ethical issues, there seems to be no reason for me to regard you as having equal epistemic status with me. Thus, you will be disqualified as a reliable adviser on ethical issues and, for this reason, I will not suspend my judgement about the current issue. Elga concludes; "contrary to initial impressions—the Equal Weight View does not require one to suspend judgment on everything controversial.[42)]"

At first glance, Elga seems to succeed in pulling the Equal Weight View out of the swamp of skepticism. According to him, there are some disciplines in which we might give extra weight on our own opinion. As I see it, however, this is somewhat radical and is consequently an irrational solution to our problem. According to him, whenever I find myself conflicting with my peer on a messy issue, I can give extra weight to my opinion based on the current disagreement. Not only does this seem irrational, but it also cannot be the Equal Weight View any longer. As a result, Elga ends up with

42) Elga(2007: 494)

an irrational form of Extra Weight View.

The way Christensen copes with skepticism is both similar and different from Elga's attempt. He also starts with distinguishing the two realms in which disagreements take place. Disagreement is rampant in disciplines like philosophy, ethics, religion and politics. It is because epistemic conditions of these disciplines are poor. Contrary to this, it is hard to find a genuine case of disagreement in disciplines like mathematics or science, for these areas are enjoying affluent circumstances with respect to their methods as well as evidences. In this sense, he insists, disagreement is 'bad news'; the fact that disagreement is prevalent in an area implies the fact that epistemic circumstances for that kind of research are poor[43]. Indeed, it is hard for a philosophical, ethical, or political theory to find conclusive evidence that can overwhelm their competing theories. But, it might be a matter of when to discover further evidence that will resolve the present contests between existing scientific theories. For this reason, Christensen takes it that conflicts in science are not subjects of epistemic disagreement; defenders of scientific hypotheses are just required to make some stay at suspension just until new evidence comes out. On the other hand, in case of disciplines whose epistemic circumstances are not expected to improve, researchers are indefinitely sentenced to suspension of belief.

After breaking the bad news, Christensen adds good news. Despite the poor circumstances, we have a good strategy to overcome it. The good strategy is to follow guidance from the Equal Weight View. Disciplines that have poor epistemic conditions are vulnerable

43) Christensen(2007: 214)

to errors. Thus, for instance, if I have an only insufficient amount of evidence about an issue, it will be irrational for me to have high confidence in my opinion on that issue. According to Christensen, the Equal Weight View might function as the "precautions against unfounded confidence[44]." When we deal with an issue from a discipline with a poor epistemic condition, suspension of belief prevents us from being irresponsibly confident in having an opinion about that issue. In this regard, suspension of belief is a rational way of responding to disagreement.

Elga and Christensen confront the problem of skepticism in a totally reverse way. What Elga categorizes as messy examples of disagreement are regarded as significant fields of disagreement in Christensen. While Elga tries to liberate those fields from the command of suspending judgement, Christensen recommends the researchers in those fields to suspend their judgement as a positive strategy to keep themselves rational. Contrary to Elga's, the theory of Christensen has no effect on the initial aim of avoiding the threat of skepticism; although cognitive subjects might avoid false beliefs by suspending judgement, they will still lose true beliefs by doing so.

It is undeniable that skepticism is a sticky question for equal weight theorists to answer. However, they cannot just bite the bullet. From the point of the Equal Weight View, all our passionate discussions about interesting subjects in philosophy, ethics and politics will be disregarded as irrational behaviors. Indeed, once someone decides to be an equal weight theorist, she would rather abandon her faith in that theory because she should require herself to suspend her

44) Christensen(2007: 216)

judgement when she encounters her epistemic peer with a different theory about belief revision.

Now, I want to close our discussion just by suggesting one possible way out of the swamp of skepticism. We need to remind what implication epistemic disagreement has and what role suspension of belief performs in disagreement. Disagreement implies the fact that at least one party to the dispute has made a mistake in estimating given evidence. Equal weight theorists require the disputants to suspend their judgements as a method of pursuing our epistemic duty —especially, the duty of avoiding what is false. Thus, suspension will be required only when one's opinion can be turned out to be true or false. For this reason, contrary to what Christensen has argued, science is the most significant area of disagreement. Indeed, the scientific claims are supposed to have a truth value. It is an inevitable duty for the researchers of this field, i.e. scientists, to pursue what is true and avoid what is false.[45] In contrast, there are interesting disciplines where truth or falsehood does not matter. For instance, many, if not all, issues of ethics, politics, religion and philosophy seem to refuse truth value judgement.[46] Equal weight theorists do not have to extend their directions to every issue in those

45) Of course, scientists might not follow such duties; they will not easily make suspension about their hypothesis after they notice competing theories. In order to understand this phenomena, see the great work from Thomas Kuhn, *The Structure of Scientific Revolutions(1962)*. Christensen also attempted to explicate this tendency in a similar way in his paper(2007: 215).

46) I am not saying that those two different fields can be sharply distinguished. Some issues of science might eventually return to philosophical questions. On the other hand, some philosophical theories might include factual claims.

fields, for many of them will not be significant subjects of disagreement. Therefore, I conclude, we can talk about many issues in which suspension of belief will not be required.

IV. Closing Remarks

Finding an answer to the problem of epistemic disagreement, we have dealt with various questions about rationality. I want to finish this paper stating the significance and limitations that our discussion might have.

Above all, we have clarified the issues that are essential for our discussion but did not attract our attention until now. The problem of epistemic disagreement has been discussed under the credence system about belief. However, there was no discussion on whether the system provides us with a proper understanding about our belief state. Finally, the system turned out to be inappropriate; it quantifies our belief state and thereby raises serious problems that cannot be easily resolved. The problem of disagreement is the problem of belief revision. And the discussion about belief revision must be preceded by the discussion about how we should understand our belief state. If we accept an inappropriate system about belief, we will get lost in discussing what rational belief revision is.

Another significance of the current discussion is that we have suggested a possible way to overcome the existing criticisms that have been raised against the Equal Weight View. Critics claimed that the theory will bring epistemic regression in a way that decreases or propagates our rationality. But the equal weight theorists had no way

to deal with such problems. As we saw, however, the newly understood Equal Weight View can cope with those problems. It suggests a new way of resolving the problems that have threatened the original theory.

Despite all these advantages, there might be some doubts about our discussion. As usual, the new theory has to cope with upcoming challenges. Could the triple system successfully substitute the credence system? How does probability of our concern differ from credence? Is it always possible to specify the contents of our belief into probabilistic judgement? Could the new theory actually overcome the problem of skepticism? There might be various questions that need to be noticed, and we need to answer those questions.

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국문초록

이 논문에서 다루고자 하는 불일치 문제는 크게 합리성에 관한 논의에 속한다. 인식론적 불일치란 인식적 능력의 측면에서 동등하다고 생각되는 인식 주체들이 같은 증거를 통해 다른 결론에 도달하는 상황을 말한다. 불일치 문제의 쟁점은 불일치의 당사자들이 이러한 사실에 노출된 뒤 각자의 의견을 어떻게 수정하는 것이 합리적인지이다. 불일치 문제와 그에 대한 경쟁 이론들은 I장에서 소개될 것이다. 그중 필자는 불일치 문제에 대한 가장 직관적인 대답으로 균등 가중치 이론을 꼽는다. 본문을 구성하는 II장과 III장 각각은 균등 가중치 이론을 옹호하는 독립적인 시도가 될 것이다. II장은 단일론-허용주의 논쟁에 관여한다. 이 논쟁은 불일치 문제와 직접적인 연관을 갖는다고 여겨져 오는 논쟁이다. 나는 이 두 이론들 사이의 논쟁이 균등 가중치 이론에게 유리한 시사점을 제공한다고 주장할 것이다. III장은 불일치 문제 내부의 쟁점들에 관여한다. 여기서 나는 균등 가중치 이론을 지지하면서도, 그 신조를 새롭게 이해할 필요성을 제안할 것이다. 그리고 새롭게 이해된 이론이 기존의 균등 가중치 이론에 제기되어 오던 문제들을 어떻게 해소할 것인지 보이고자 한다.

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주요어 : 의견불일치, 인식적 합리성, 단일론, 허용주의, 균등가중치 이론, 확률적 믿음

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