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What's Going on, When We Share Knowledge?¹

When we say “We share knowledge”, the expression is vague and ambiguous. As we see in detail later, it means simply “shared knowledge” in some cases and “common knowledge” in other cases. The problem we work on here is how we can understand “common knowledge”. Many researchers explain it by reduction to individual knowledge (belief, assumption, or expectation, etc.) But, is this possible actually? Isn’t it necessary instead to suppose “our knowledge” cannot be reduced to individual knowledge? This thought might be opposed to the ordinary understanding in epistemology but I pursue its possibility here.

1 “Shared Knowledge” and “Common Knowledge”

(1) Definition of “Shared Knowledge”

To begin with we define “shared knowledge”. We want to say that p is shared knowledge between A and B, when the following two conditions hold;

- (1.1) A knows p.
- (1.2) B knows p.

For example A and B know p “The capital city of Bhutan is Thimbu”. In some case B knows further that A knows p and in another case B doesn’t know this. In either case we want to call p “shared knowledge” between A and B, if (1.1) and (1.2) hold. Given that in this further case the following conditions hold.

- (1.3) A knows that (1.1) and (1.2).
- (1.4) B knows that (1.1) and (1.2).

Then (1.1) and (1.2) are shared knowledge between A and B in addition to p. We can write (1.1), (1.2), (1.3), and (1.4) as follows:

¹ This paper has a close connection with my papers: ‘How is mutual knowledge possible’ in “Arche” Kansai Tetsugakkai, No. 12, pp. 54-67, 2004, ‘Paradox in Metacomunication (2)’ in “Osaka Shoin Women’s College Collected Essays” No. 31, pp. 143-160, 1994.

- (2.1) p is a shared knowledge of A and B.
- (2.2) (2.1) is a shared knowledge of A and B.

We can repeat such manipulation further in some case. But it is not always possible.

(2) An Example of “Common Knowledge” and Its Definition by Lewis.

Now let us start again from the beginning. A asks B “Is the capital city of Bhutan Thimbu?” and B answers “Yes, it is”. Then A and B know not only p “The capital city of Bhutan is Thimbu”, but also it is evident for A and B that p is shared knowledge between A and B and it is also evident for A and B that it is evident. In this situation we can repeat manipulation as often as required. In this situation we want to call p “common knowledge” between A and B.

D. Lewis is one of the pioneers behind this kind of argument for common knowledge. He raised the following example.

“Suppose the following state of affairs --- call it A --- holds: you and I have met, we have been talking together, you must leave before our business is done; so you say you will return to the same place tomorrow. Imagine the case. Clearly, I will expect you to return. You will expect me to return. I will expect you to expect me to expect you to return. Perhaps there will be one or two orders more.”²

In this case “I expect you to return to the same place tomorrow” is common knowledge of both persons. Lewis gives us a definition of “common knowledge” as follows.

“Let us say that it is common knowledge in a population P that ____ if and only if some state of affairs A holds such that:

- (1) Everyone in P has reason to believe that A holds.
- (2) A indicates to everyone in P that everyone in P has reason to believe that A holds.
- (3) A indicates to everyone in P that ____.”³

He defines “A indicates to someone x that ____, if and only if x had reason to believe that A held”.⁴ As this definition shows us, he explains common knowledge by reducing it to individual knowledge.

Schiffer gives us a slightly different definition from the knowledge Lewis defined as common knowledge. Schiffer’s definition is termed “mutual knowledge”. And Sperber and Wilson criticized Schiffer’s definition and gave another definition under the term “mutual

² David Lewis, *Convention*, p. 52, 1969.

³ *Ibid.* p.56.

⁴ *Ibid.* p.53.

manifest". Tuomela also argued for another definition under the term "mutual belief". But what is common in their definitions is that they try to explain common knowledge, assumption, or belief on the basis of individual knowledge, assumption, or belief. The definition of "collective intentionality" Y. Nakayama proposed might be an explanation of collective intentionality by reduction to individual intentionality. But is it really possible to explain collective intentionality by starting from individual knowledge?⁵

In contrast to them J. R. Searle claims that such reduction is impossible and asserts "Collective intentionality is a biologically primitive phenomenon"⁶ I think that collective intentionality is not a "biologically primitive phenomenon", rather it is a linguistically primitive phenomenon, because our knowledge and perception depend on acquisition of language, as the theory-ladeness of our perception shows us, and the acquisition of language depends on a group of people. But I agree with his suggestion that collective intentionality is a "primitive phenomenon" that is unable to be reduced to individual intentionality.⁷

In what follows, first I point out the impossibility of reduction of a common knowledge into individual knowledge, second I pursue the possibility of super individual knowledge which might sound a bit weird.

2 How Can We Know That Shared Knowledge Is Realized?

When p is common knowledge, it is simultaneously shared knowledge. Therefore so as to realize common knowledge, shared knowledge must be realized. How can we know that shared knowledge is realized? We must answer the following question in order to say that shared knowledge is realized. Let us use again the above example!

- (1.1) A knows p.
- (1.2) B knows p.

We decide to say "P is shared knowledge between A and B", when both (1.1) and (1.2) hold. Then, who and how do they know that these both hold? If the third person C knows it, then C comes to say "P is shared knowledge of A and B". If A knows it, then A comes to say "P is

⁵ Schiffer, *Meaning*, Oxford UP, 2003, Sperber & Wilson, *Relevance*, Blackwell, 1986, R. Tuomela, *The Philosophy of Social Practices*, Cambridge UP, 2003, Yasuhiro Nakayama, *Kyodosei no Gendai Tetugaku (Contemporary Philosophy of the Communal)*, Keiso Syobo, 1995, p.24.

⁶ J. R. Searle, *The Construction of Social Reality*, The Free Press, 1995, p.24.

⁷ Searle doesn't think "Weltgeist" like Hegel. He seeks the third way between the individualistic way and the Hegelian way. I cannot here investigate Searle's claim in detail.

shared knowledge between A and B". In what follows we will think the latter case. (The difficulty we describe later is the same as in the former case.)

In this case, how can A know (1.2) "B knows p"? Given e.g. that p is "Thimbu is the capital of Bhutan" and A asks B "Do you know the capital of Bhutan?" and B answers A "Yes, it's Thimbu", then A can know that B knows p. In this step A knows that p is common knowledge between A and B. But strictly speaking, A must know that B's understanding of p "Thimbu is the capital of Bhutan" is identical with A's understanding of it. Then how can A know this? It is probably evident for them that A and B understand p as having the same meaning. Because it might be more difficult to understand p as having a different meaning. But if we insist that knowledge is always owned by individuals, then, even if A knows that B knows p "Thimbu is the capital of Bhutan", then p in this case is a part of the knowledge which A has as knowledge of B, i.e. p is A's knowledge. Then A cannot have B's knowledge as B has it. From this point of view, the commonality of knowledge is no more than what individuals are expecting. Not only content of B's knowledge but also the fact that B has knowledge and further the fact that B exists as a being like A are also no more than what A expects. We want to call this claim "epistemological solipsism". If a person accepts this claim and, in addition to it, "ontological solipsism" which asserts that there exists nothing but she, then it will be a consistent claim. But if she accepts epistemological solipsism and denies "ontological solipsism" and claims the existence of more than one ego, then is this claim coherent? Let us go on to inquire into this problem.

3 Epistemological Solipsism and the Ontological Claim of Many Egos Are Incompatible.

(1) Are They Incompatible from a Scientific Point of View?

Today's natural scientists might think that it is an individual brain that thinks and utters in communication with others. An individual accepts the voices and actions of others with her sense organs like eyes and ears and processes them and constitutes perceptions and interprets them with words in her brain. In such an explanation, knowledge is what exists in her brain and it is impossible that we share knowledge.

By the way, when a scientist explains our knowledge as in the sense above, she acknowledges that the explanation is itself a part of knowledge existing in her brain. But she thinks simultaneously the said explanation is the case, e.g. she thinks p "It is the case that she is talking with an other, but her knowledge about that is an event in her brain. The event in her brain is an objective fact, like the fact that she is talking with the other." But p is also

again an event in her brain. This will be repeated indefinitely. When a person thinks that all human consciousness and knowledge exist as an event in a brain or a phenomenon supervening on the event, this thought exists itself in her brain. When a scientist thinks that others are thinking also in their brains like she, how can she prove it? Even if she thinks of the proof, it exists in her brain. She cannot get out of her brain.

Let's go back a little, how can a scientist prove that all consciousness and knowledge exist as events in the brain or supervening phenomena? Given that she can repeatedly confirm the correspondence between a thought of a patient (or a report of his thought) and an event in her brain with some kind of brain scanner developed in future in her experiments, then it is sufficient as proof of her claim in the field of brain science, but it is not enough in philosophy. If the brain scientist can predict and verify what events occur in the brain, when the patient thinks a thought "all human consciousness and knowledge exist as an event in a brain or a supervening phenomenon", then any claim about the mind-body problem she makes based on her experiment and her proof must also exist in her brain. Then her proof of the claim "all human consciousness and knowledge exist as an event in a brain or a supervening phenomenon" doesn't seem to be valid. But even if the proof of the claim is impossible in principle, it remains possible that the claim is true. So as to criticize the possibility, let us think about the phenomenology.

(2) Criticism against Phenomenology

Suppose like Husserl that there are many transcendental egos which construct the world and objects and others. We will call this claim "theory of many transcendental egos". But even if the others are transcendental egos, they are no more than what I construct. The fact that there are many transcendental egos is also constructed by me as a transcendental ego. Therefore my transcendental ego is only one real transcendental ego and Husserl called this claim "transcendental solipsism"⁸. Husserl tried to reply to criticism that his thought was transcendental solipsism, by arguing for a "theory of many transcendental egos" (this is not his term). But if we don't accept solipsism, then we must accept that there are many such real transcendental egos. And this fact is also constructed by me as a transcendental ego. We can repeat such arguments and we fall into oscillation between "transcendental solipsism" and the "theory of many transcendental egos".

This oscillation is able to sustain a way of living or an attitude toward our real life. But it

⁸ Husserl, *Cartesianische Meditationen*, § 62.

doesn't hold as a theory, because if I adopt this oscillation as my theory then this theory is also constructed by me and I have turned back to the transcendental solipsism. If I am not to be a solipsist, then I must suppose that there are others who are not constructed by me and I must turn back to a meta-level oscillation, because this supposition is again no more than my supposition. Therefore the oscillation cannot be a stable theoretical standpoint. Therefore, if we accept neither the transcendental solipsism nor the oscillation between both claims, then we need to claim the existence of many egos in a different way from Husserl's phenomenology.

Let me explain it in different words, so as to make it explicit what I want to say. If intentionality is in individual minds at all, then we must explain a collective intentionality by reducing it into individual intentionality. But this explanation cannot stay at this level, because if intentionality is in individual minds, this explanation is also in some individual mind. Someone can suppose that there are many minds who think like her and her supposition is also in her mind. To put it simply if all intentionality is individual, then the assumption that there are many individuals with intentionality and a collective intentionality is constructed out of individual intentionality and must be an individual one. This assumption is self-defeating.

Well how can we think existence of many egos? If to think many egos is conducted by individuals, then we will go back to solipsism. To avoid it it's inevitable to think that something over individuals think many egos. Let's inquire into the possibility of this thought.

4 Share of an Object and Share of a Description of It.

(1) Are We Looking at the Same Vase, Aren't We?

Let's think about perception. We cannot probably share a perception with others. But we can look at the same vase, can't we? Suppose that A and B are in a room and are seated across a table and there is a vase on the desk between them. In ordinary life people don't doubt that they are looking at the one and same object. In this case A and B are looking at the one and same vase itself. They know that they are looking at it from different directions. They don't think ordinarily that they are not looking at the vase itself, but that they are only having a perception of it. But if they reflect, they will probably agree that they aren't looking at the vase itself and they have no more than perception of it.

By the way even when A and B reflect that they have different perceptions about the one and same vase, their perceptions are about the one and same vase. A and B think that there is a vase and they have perception of the one and same vase. But, how does it come to be

possible that they think so?

What makes them confirm and maintain such thought is their agreement in conversation that they have perception about the one and same vase, because if in spite of A's expectation of the agreement B said: "I am looking at a table, not a vase" or "I cannot see a table", then A might begin to doubt that they are looking at the one and same vase. Therefore we can say that to share an object of perception presumes it as a necessary condition to share a description of the world. (This is, of course, not yet an explanation how A and B could get at first the thought of sharing an object of perception.)

(2) How does It Come to Be Possible to Share a Description of the World?

How can it be then possible to share a description of the world? An expected answer is that many persons understand a proposition as they perceive a vase. E.g. Gottlob Frege claimed that thought (Gedanke) is the meaning (Bedeutung) of a proposition and exists objectively⁹. But this cannot solve the question. E.g. when A and B understand " $5 + 7 = 12$ ", we can say, according to Frege, that A and B understand the one and same objective thought. But how can A and B understand the objective thought? Even if there is some mysterious way of understanding, how is it secured that they have understood correctly the objective thought? How can A know that B knows correctly the thought as well as A?

The only way to solve these questions is that A and B confirm it for each other by argument that they understand a proposition as having the same meaning. But if it is the case, such confirmation can't be perfectly certain. The coincidence of their understanding comes to be an individual assumption of A or B.

If we can certainly say that we share a description of the world, we must understand our knowledge in a quite different manner. In order for A and B to share some knowledge, they must know commonly numerically singular knowledge. This claim is probably opposed to the usual understanding of knowledge in epistemology. I could not prove the existence of such knowledge but I will show it in two ways in the following.

⁹ Frege, 'Der Gedanke', in *Logische Untersuchungen*, Kleine Vandenhoeck-Reihe, Goettingen, 1986.

5 “Our” Practical Knowledge and Common Knowledge

(1) Explanation of “Practical Knowledge”

As G. E. M. Anscombe pointed out, when we are asked “What are you doing?”, we can answer it immediately. In the case of some actions, when we are asked “Why are you doing so?” we can answer it immediately. Such actions are what we call “intentional actions”. Anscombe thinks of this criteria as a way to define the intentional action without using the word “intention”. When I am asked “What are you doing?”, I answer e.g. “I am making coffee”. Anscombe called an answer like this “practical knowledge”. According to her, practical knowledge is not based on observation. Additionally, it is also not based on inference.¹⁰

How can we prove that practical knowledge is not based on observation? To be based on observation means to be based on sensory intuition. It is certain that I need not look at my body in order to know what I am doing. But is it not the case that I know what I am doing, by feeling the position of my hands and legs and body? It is probably not the case, because even if I feel the position of my hands and body etc., I cannot realize only by this that I am not making hot cocoa but coffee at the time I am only just boiling water. How about internal intuition? Is it not the case that I have an intention to make coffee and know my intention by internal intuition and answer “I am making coffee” based on the internal intuition? There might be several ways to criticize this possibility. I’ll show you one of them.

Anscombe said that practical knowledge is not only without observation but also without inference. If practical knowledge were based on inference or internal intuition, practical knowledge would be a description about a speaker referred to by “I”. Therefore contrary, if practical knowledge is not a description, then it is not based on inference or internal intuition. (By way of caution, the inference we think about here is inference to answer a question “What are you doing?”, but different from “practical inference” to answer a question “Why are you doing so?”)

By the way practical knowledge has a truth value. E.g. when I answer “I am making coffee”, I might be not putting coffee powder in my cup, but chocolate powder. But even about this case Anscombe said the “mistake is in action, not in judgment”¹¹ which is a citation from Theophrastus. As the following says, the practical knowledge does not describe an action but constructs an action and is an essential part of action.

“it is the agent’s knowledge of what he is doing that gives the descriptions under

¹⁰ Cf. G. E. M. Anscombe, *Intention*, Harvard U. P., 2000, p. 50.

¹¹ *Ibid.* p.87.

which what is going on is the execution of intention.”

“the account given by Aquinas of the nature of practical knowledge holds: Practical knowledge is ‘the cause of what it understands’, unlike ‘speculative’ knowledge, which ‘is derived from the objects known’.”¹²

These citations point out that practical knowledge is different from ordinary description and it has the characteristic that it constructs an object.

This characteristic that practical knowledge is a part of an action is a little similar to J. L. Austin’s “performative utterance”.¹³ E.g. an utterance of a promise “I promise to make coffee” makes the promise take hold. An utterance of practical knowledge “I am making coffee” makes the utterer’s action intentional. The performative utterance has no truth value, because it is not a description of an action, it has the distinction of felicity and infelicity. But a declarative utterance, among the performatives, can have a truth value. E.g. by declaration a man can be found guilty. But there can be a case where the declaration is false. In this point practical knowledge seems to be especially similar to the declarative utterance. (In this regard the problem how practical knowledge and speech acts are related to each other is related to the problem how we classify illocutionary acts. This problem needs to be inquired into in more detail.)

(2) “Our Practical Knowledge”

As I can answer, for example, “I am playing chess”, when I am asked “What are you doing?”, we can answer, for example, “We are playing chess”, when we are asked “What are you doing?” We can answer immediately as well as I can answer “I am playing chess”. There is practical knowledge which has the first plural pronoun “we” as a subject.

We can anticipate the following objection. Who utters “We are playing chess” is an individual and who answers is not “we” but an individual person and she is describing “our” action. I want to reply to this objection as following. If it is practical knowledge, then it is not a description of “us”. If on the one hand the answer “I am playing chess” is not a description and on the other hand the answer “We are playing chess” is a description, then there is distinct qualitative difference between them. But I cannot feel such a distinct difference. In order to hint at a proof, I ask you here to remember the distinction between the “use as subject” and the “use as object” which Wittgenstein introduced concerning the use of the

¹² Ibid.

¹³ J. L. Austin, *How To Do Things With Words*, Harvard U. P., 1955.

first person pronoun “I”.

“There are two different cases in the use of the word “I” (or “my”) which I might call “the use as object” and “the use as subject”. Examples of the first kind of use are these: “My arm is broken”, “I have grown six inches”, “I have a bump on my forehead”, “The wind blows my hair about”. Examples of the second kind are: “I see so-and-so”, “I hear so-and-so”, “I try to lift my arm”, “I think it will rain”, “I have toothache”. One can point to the difference between these two categories by saying: The cases of the first category involve the recognition of a particular person, and there is in these cases the possibility of an error, or as I should rather put it: The possibility of an error has been provided for. [...] On the other hand, there is not question of recognizing a person when I say I have toothache. To ask “are you sure that it’s you who have pain?” would be nonsensical. Now, when in this case no error is possible, it is because the move which we might be inclined to think of as an error, a “bad move”, is no move of the game at all.”¹⁴

The use of “I” as object is a use in the case where a speaker describes himself objectively by observation, and in contrast a speaker doesn’t describe himself in the use of “I” as subject. The practical knowledge Anscomb coined is not included in the above examples of the use of “I” as subject.¹⁵ But we can regard that practical knowledge also belongs to the use as subject category. “Are you sure that it’s you who is making coffee?” would be as nonsensical as to ask “are you sure that it’s you who have pain?” Because the identification of a person doesn’t come into question in these cases.

By the way, we can divide the use of “we” into two categories, as Wittgenstein divided the use of “I”. The use as object is e.g. “we got new uniforms”, “we are a strong team”. The identification of persons or a group of persons is entailed in these examples. Therefore it is possible for these utterances to be false. Examples of the use as subject are “we are playing soccer”, “we are listening to an announcement in station”, “we think it will rain soon”, “we are in trouble”. In the use of subject, e.g., to ask “are you sure that it is you who are playing soccer?” seems nonsensical, that is, it seems that the identification of a group of persons doesn’t come into question, because it doesn’t refer to a group of persons and describe it, but “we” are constructed by this utterance. When “we are playing soccer” is a use as subject, it is not description of “us”

If the knowledge “we are playing soccer” is “our practical knowledge” and not a description about “us”, then this knowledge is not individual knowledge but “our” common knowledge. (Other instances of “we” as use as subject might be also our common knowledge. I can’t say anything certain about it now.)

¹⁴ Ludwig Wittgenstein; *The Blue and Brown Books*, Blackwell, Second Ed. 1969 p.67

¹⁵ Toyohiko Kan pointed out the difference between the examples of use as subject Wittgenstein raised and the practical knowledge Anscombe named. Cf. T. Kan, *Kokoro o Sekai ni Tsunagitoru*, Keiso Syobo, 1998, pp. 118-121.

Given that A and B are asked “what are you doing?” and A answers “we are playing soccer”, this answer is practical knowledge and common knowledge. A and B share knowledge “we are playing soccer” and A answers the question, representing “us”. “We” are constructed by being represented. As we can understand the use of “we” in this case in such a way, we can say also in the case of individual practical knowledge whose subject is “I” that a speaker represents a person and he becomes a person “I” by being represented in the utterance. A person who is represented by “I” didn’t exist before the utterance and came to exist by being represented. We can understand the existence of “I” and “we” in this same manner.

(3) The Background of “Our Practical Knowledge”

By the way, practical knowledge holds in a web with other knowledge in a similar way to other knowledge. When we pay attention to practical knowledge, we can call other knowledge constructing a web together the “background knowledge of practical knowledge”. E.g. “I am making coffee” has much background knowledge like “These are coffee granules” “Here is hot water” “I can make coffee” “I exist” etc. By the fact that “our practical knowledge” is common knowledge, this background knowledge is also common knowledge.

Given for example that when I am asked “What are you all doing?”, I answer “We are playing baseball” to the question and when I am asked “What are you doing?”, I answer “I am playing left field” and when I’m asked “What is he doing?”, I answer “He is playing center field”. In this case “We are playing baseball” is “our practical knowledge” and “I am playing left field” is my practical knowledge. When these are practical knowledge and not based on observation, “He is playing center field” is also not based on observation. Furthermore, if “we are playing baseball” is “our” common knowledge, then “I am playing left field and he is playing center field” is also “our” common knowledge. That is, “I am playing left field” and “He is playing center field” are “our” common knowledge. Here is a possibility to extend the concept of “common knowledge”.

6 A Necessary Relation between Questions and Answers and Common Knowledge

When I know p, I know that I know p and I know that I know that I know p. In a case of individual self-consciousness, it is possible to make such repetition as many times as we need. As we showed you in the fist example of common knowledge, common knowledge has

the same feature as individual self-consciousness. If p is common knowledge of A and B, then A and B know that A and B know p and A and B can make such repetition as many times as needed.

How can we explain the such repetition in common knowledge? If such repetition to make knowledge in a meta level would need reflection or introspection, it would require reflection or our introspection which is conducted by “us” and it would require to suppose a super individual subject. But we need not suppose a super individual subject in order to explain such repetition. We can explain it by following analysis of a relation between questions and answers.

(1) Self-Consciousness and a Necessary Relation between Questions and Answers

I get off a bus and walk to my house. Then I look up into space and find a full moon. I think “Aha, there is a full moon. No wonder it’s a little light”. Then “there is a full moon” is not brought up into consciousness as knowledge. My attention is focused on the moon, but not on me watching the moon. If “there is a full moon” were brought up into consciousness as knowledge, then I would think “I know that there is a full moon”

But even when the knowledge is not brought up into consciousness, it is not the case that I don’t know “there is a full moon”. Because if I am asked “Do you know that there is a full moon?”, I can answer immediately “Yes, of course”. In this case, on what grounds can I answer it? I don’t answer probably based on reflection or introspection. When I am asked like this, my answer is either one or the other of the following.

- (1) “Yes, I know that there is a full moon.”
- (2) “No, I don’t know that there is a full moon.”

I have seen a full moon and thought “there is a full moon” in my mind, so to answer with (2) makes it the case that I say “There is a full moon. But I don’t know that there is a full moon” in my mind. It is absurd or something like contradictory. Therefore it is necessary that I answer with (1). Let us think generally. When A says “ p ” and B asks A “Do you know p ?”, A always answers in the following way;

- (3) “Yes, I know p .”

Because if it was not so, the A’s answer would be as follows;

(4) "No, I don't know p."

But this answer says that

(5) "p. But, I don't know p."

This utterance is similar to Moore's paradox and is absurd. (Strictly speaking, Moore's so-called paradox is an utterance with a form "p. But I don't believe p.") If A is asked about (3) furthermore "Do you know that you know p?", then A will answer with similar reason as follows;

(6)"Yes, I know that I know p."

The possibility of repeating individual self-consciousness can be explained from the necessity to avoid absurdity in relations between questions and answers. So this repetition can be understood neither as an empirical fact based on human epistemic faculties nor as a transcendental fact, but as a result of a logical relation between questions and answers.

(2) Common Knowledge and a Necessary Relation between Questions and Answers

The same as the above is applicable to the plural first person pronoun. Given e.g. that I am walking with my wife at night. I look up into space and say "There is a full moon", and my wife replies "Oh! You are right." In this case we both know that there is a full moon. If a third person asks us "Do you know that there is a full moon?", then we can answer either (7) or (8).

(7) "Yes, we know that there is a full moon."

(8) "No, we don't know that there is a full moon."

If I (or my wife) answer with (8), then it means to say "There is a full moon. But we don't know that there is a full moon." and this answer is absurd. If I say "There is a full moon. But I don't know that there is a full moon", then it is similar with Moore's paradox. And if I say "There is a full moon. My wife agrees with it. But my wife doesn't know that there is a full moon", then it will also be absurd. Therefore I must answer with (7) and my wife also must do so. Therefore the answer (7) is necessary here.

If we are asked again "Do you know that you know that there is a full moon?", our

answer must be either (9) or (10).

- (9) “Yes, we know that we know that there is a full moon.”
- (10) “No, we don’t know that we know that there is a full moon.”

The answer (10) is absurd, because it would answer as follows;

- (11) “We know it. But we don’t know that we know it.”

This is absurd, because in order to answer in this way the one or both of us must answer as the following, but it is as absurd as Moore’s paradox.

- (12) “We know it. But we don’t that we know it.”

Therefore we cannot answer with (10) and it is necessary to answer with (9) from a logical relation between questions and answers.

In the case like this, “We know that we know p” results from “We know p”. It can be repeated as many times as needed. “Our knowledge” can be repeated like self-consciousness.

7 Conclusion

We are living in a society and make routine according to conventions like waiting at traffic lights, getting to the office on time, giving a salute, and working in the office. Such social life is of course constructed by common knowledge. On the other, it is always possible for us to be in disagreement. But it is possible only on presupposition of some common knowledge to agree to differ. If there is no common knowledge at all, it becomes impossible to point out a disagreement. Particular common knowledge is able to be realized, to be false, or to be eliminated, but common knowledge as a whole is not able to be broken at bottom.