

First draft, criticism and comments are welcome.

On Non-defective Context

A theory of context usually gives us an account of significance of contextual occurrence of an utterance of a sentence. There appear two focuses in the literature: extensional characterization of context and intensional characterization of context¹. The former aims at understanding of context as mind-transcendent, while the latter attempts to explore cooperative principles in an utterance context. However, our concern is about extensional content of context. In fact, this paper is to sketch out the concept of non-defective context within Stalnaker's theoretical framework.

Stalnaker defined a non-defective context as one in which the presuppositions of the various participants in the conversation are all the same². Presupposition is understood as something that is taken for granted by the participants in the conversation. Presupposition thus understood is a pragmatic notion, called speaker presupposition. Speaker presupposition is treated as a propositional attitude attributed to the participants and the presupposed propositions are the content of the attitude. This intensional definition of non-defective context is powerful in explaining intentionality of rational agents in a certain conversational context³. However, its explanatory power, to a great extent, appeals to theory of mind as result of which it will have to meet challenges of more philosophic difficulties. That being so, we might as well think about an alternative as a strategy to circumvent this plight. We will be giving an account of descriptive definition of non-defective context in the spirit of extensional characterization of context.

First, we will be spelling out Stalnakerian notions of proposition and propositional concept so as to pave the way for analysis of non-defective context; second, the theoretical framework of propositional concept is used to give a description of non-defective context; third, propositional

¹ There is similar dichotomy in Gauker (1998), where he distinguished an *external* norm from *internal* norm. An *external* norm is about how a speaker's thought and behavior depend on the way the world is, while an *internal* norm is about how a speaker's thought and behavior depend on his or her beliefs and desires.

² Stalnaker (1978) reprinted as Chapter 4 of Stalnaker (1999, p. 85)

³ Stalnaker (2002, p. 702)

concept is to be enriched with introduction of Lewis's theory of indices; fourth, the descriptive definition of non-defective context is to be given a metaphysical and epistemic interpretation and some concluding remarks are to be made; fifth, theory of non-defective context is to be employed to analyze the problem of speaker presupposition posed by phenomenon of informative presupposition

1. Proposition and Propositional Concept

Suppose someone says:

(1) John has bought a donkey.

The utterance of (1) expresses a proposition. Following Stalnaker, we construe a proposition as a function from possible worlds to truth values. In order to obtain a determinate truth value for a proposition, it is required to specify domain of possible worlds in which individuals are supposed to satisfy the proposition function⁴. For example, an utterance of (1) expresses a proposition that is represented as: $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ ⁵. For the proposition function to take the true value, the speaker needs to distinguish, among all the possible worlds, those possible worlds in which a true value would result from argument assignment in the function, from those where comes a false value for the function.

Intuitively (1) is uttered in a context in which the speaker recognizes the fact that John has bought a donkey. However it is also possible for the utterance to occur in a context in which it is not true that John has bought a donkey or in a context in which John has bought something other than a donkey. Thus, a context is something like a possible world where the utterance of *John has bought a donkey* expresses a proposition that depends for its truth values on which possible world to choose for evaluation of the relevant propositional content. This treatment of a proposition is what Stalnaker meant by propositional concept.

⁴ By proposition function I mean a function that represents a proposition in Stalnakerian sense, which is different from Russell's propositional function that would yield a proposition when an argument is assigned a value.

⁵ I borrow the notation of quantified noun phrases from Stephen Neale (1990).

According to Stalnaker, a propositional concept is a function that takes possible worlds as arguments and returns propositions, which, in turn, as explicated above, are functions from possible worlds to truth values. Let's follow Stalnaker in examining what is involved in the propositional concept of the utterance of (1). Take two possible worlds i and j in which the proposition of the form $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ is fixed, and a third possible world k in which the proposition of the form $f(x) = \text{an } x: \text{donkey-not}(x) \ \& \ \text{John-has-bought}(x)$ is formed. Given an appropriate proposition in a certain possible world, a truth value would be mapped to the corresponding possible world. Thus the proposition of the form $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ would yield a true value in the possible worlds i and k , while the proposition of the form $f(x) = \text{an } x: \text{donkey-not}(x) \ \& \ \text{John-has-bought}(x)$ would yield a true value in the possible world j .

Give a Stalnakerian matrix of the propositional concept as follows:

	i	j	k
i	T	F	T
j	T	F	T
k	F	T	F

The fact that the horizontal lines headed with i and j contain the same truth values shows that the content of the utterance of (1) is the same in the two possible worlds i and j . The proposition function, $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$, remains the same in the two possible worlds i and j in terms of its truth values. In contrast, a different proposition function constitutes the content of utterance of (1) occurring in the possible world k : $f(x) = \text{an } x: \text{donkey-not}(x) \ \& \ \text{John-has-bought}(x)$. Of course, this proposition would yield truth values different from the former in a given possible world.

The fact that the vertical columns under i and k contain the same truth values shows that between

the two possible worlds i and k an agreement is reached on truth values of a proposition function fixed in a given possible world. This agreement persists despite of variation of proposition function arising from their occurrences in different possible worlds. Any assignment of x would render the proposition function $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ true in the two possible worlds i and k . Similarly any assignment of x would make the proposition function $f(x) = \text{an } x: \text{donkey-not}(x) \ \& \ \text{John-has-bought}(x)$ yield a false value in the two possible worlds i and k . However, there would be no such agreement between the possible world j and the other two possible worlds i and k in terms of truth values of any proposition function.

Now let's look into those true propositions in the matrix of the propositional concept. First, the utterance of (1) expresses a true proposition just in case that the fact that John has bought a donkey is taken for granted and it is further to be accepted by the speaker. Then, even if a speaker does not accept the fact that John has bought a donkey, he or she would come to accept it provided that he or she acted in the way the fact is the case. Last, if a speaker denies the fact that John has bought a donkey, he or she would probably assert something other than what the utterance of (1) expresses.

Suppose I said to Robert, *John has bought a donkey*. He did not agree with me, retorting, *John has not buy a donkey*. His disagreement is based on his understanding of the content of my utterance of *John has bought a donkey*. When he refuted me, he took the content of my utterance for granted. In other words, had he stood in my shoes, he would have expressed the same proposition as what my utterance expressed.

I expressed a true proposition in the sense that the proposition is true in the possible world where I am. But the proposition is false in the possible world where Robert is, because he did not accept the content of my utterance. In fact, even though he took the content of my utterance for granted, he would not accept it, as long as the content of my utterance is evaluated in the possible world j in which he resides. So, the content of my utterance is fixed in the possible world where I am and it is not dislodged in the possible world where Robert is. Let's put it this way. Robert and I reach an agreement on the function that takes possible worlds as inputs and yields truth values as outputs.

Even there is a strong reading on which Robert and I agree on the specific mappings from the possible worlds to truth values. It is in this sense that we understand what Stalnaker meant by a non-defective context. We will expand more on this point later in the paper.

Let's go further to imagine another situation. Richard and I both saw that John has taken a donkey home. I said to Richard, *John has bought a donkey*. He replied, *Oh, yes*. But, as a matter of fact, Richard mistook what John bought for a mule. His assenting to my question dissembles the fact that what he had in mind is a mule rather than a donkey. This illustrates what the possible world k is like. The content of my utterance diverges between the possible world where I am and the possible world where Richard is.

Of course, Richard's understanding of my utterance differs from Robert's understanding in terms of what *a donkey* refers to. However, had Richard not mistaken a donkey for a mule, he would have accepted the content of my utterance and he would certainly have argued with Robert on what I said. But it is a complex matter to make clear what they argued about. First, they did not agree on the content of my utterance. Robert took it as the proposition of the form $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$, while Richard regarded it as the proposition $f(x) = \text{an } x: \text{donkey-not}(x) \ \& \ \text{John-has-bought}(x)$. Nonetheless the matter would have appeared even more complicated when they had stood in each other's shoes. Suppose Robert had taken Richard's understanding of my utterance for granted. That is, given the fact that John has bought a mule, Robert would have *probably* accepted the fact. As we know, Robert disagreed with me on the fact that John has bought a donkey, but he would probably agree that John has bought a mule. So Robert would have disagreed with Richard no more if he had stood in Richard's shoes. However, in contrast, Robert would not have changed his mind if he had taken the content of my utterance for granted. This shows that there is a metaphysical necessity with regard to the content of my utterance between the possible world where I am and the possible world where Robert is. The necessity does not hold between the possible world where Robert is and the possible world where Richard is. These observations have something to do with definition of a non-defective context. More details will follow.

2. *Non-defective Context and Predicate Extension*

So far we have got a picture that describes what Stalnaker meant by a non-defective context and a defective context. There is a non-defective context in the conversation between Robert and me, but a defective context between Robert and Richard. Let's see the other case. Had Richard stood in Robert's shoes, what would have happened? Richard would have accepted the fact that John has bought a donkey, as Robert understood it. That Richard's attitude would have changed had he been given a different propositional content demonstrates that Richard does not share a non-defective context with Robert. How about the conversational context between Richard and me? Richard did not agree with me in that he did not take the content of my utterance for granted. Had he taken it for granted, he would have accepted it. So here's another defective context. In sum, there is a non-defective context in the conversation between Robert and me, but a defective context between Robert and Richard, also between Richard and me.

It is time to generalize some facts about a non-defective context as described above. In the first place, a proposition is fixed in the two possible worlds just as the proposition $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ is fixed in the possible worlds i and j . In the second place, the given proposition is such that it takes possible worlds as inputs and yields truth values as outputs. In the third place, the specific mappings from possible worlds to truth values remain the same in the two possible worlds. In the possible world i , the proposition $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ yields a true value given the possible world i , while a false value given the possible world j . It is the same case in the possible world j . Suppose the possible worlds i and j are all there are to the domain of possible worlds in the conversation. Then in every possible world in the domain of discourse, the proposition $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$ is attributed to a necessary existence as seen from equivalence of corresponding truth values in the possible worlds. Especially the domain of individuals that are to satisfy the predicates $\text{donkey}(x)$ and $\text{John-has-bought}(x)$ are the same in all the given possible worlds. Therefore in a non-defective context extension of the predicates occurring in the proposition is required to be congruent.

Usually extension of a predicate consists of a class of individuals that possess a certain property. The predicate *donkey(x)* is satisfied by all those individual donkeys. In a formal language, for every *a*, *a* satisfies the predicate *donkey(x)* if and only if *a* is a donkey. Here the set of every *a* could be understood as an infinite sequence of occurrences of *a* in the sense of Tarskian satisfaction of predicate to the effect that the predicate *donkey(x)* is satisfied by a sequence *f* with the class of natural numbers excluding zero as its domain. I.e., *donkey(x)* is satisfied by $\{x_1, x_2, x_3, \dots\}$ got from *f* as an infinite sequence of a class of individuals. It is obvious that, $\{x_1, x_2, x_3, \dots\}$ is the set of substitution instances of the variable *x*. In fact, it is in virtue of substitution instances that an individual proposition could take shape. So a more fine-grained analysis of propositional concept would require $\{x_1, x_2, x_3, \dots\}$ rather than *x* as argument.

The proposition that is fixed in a certain context of possible worlds is an individual proposition rather than a proposition function. Therefore we would instead have *donkey(x₁)* & *John-has-bought(x₁)* as an individual proposition where *x₁* is the first occurrence of *x* in an infinite sequence. Generally, in a given possible world, there is a series of such propositions depending on the infinite sequence assigned to the argument of proposition function.

2. Index and Rule of Shiftiness

A proposition as a function from possible worlds to truth values could not be specific unless some more implicit argument(s) are specified. These implicit arguments comprise, at least, what Lewis meant by indices⁶. Lewis defined indices as packages of relevant factors that determine truth values of a proposition by a certain rule. He took indices as n-tuples of the various items called coordinates of the index. We might as well think that specification of indices in a context of possible worlds would give meanings to substitution instances of the variable as argument of the proposition function. So the proposition *donkey(x₁)* & *John-has-bought(x₁)* would get fixed depending on how indices are specified in the possible world *i* and *j*. For instance, the sentence *John has bought a donkey* is significant in the sense of being given a determinate truth value if and

⁶ Lewis (1970), reprinted as Chapter 12 of Lewis (1983, p. 194)

only if there is an individual that is a donkey which has been bought by John from sometime in the past up to now. Here utterance time as an index contributes to determination of the individual. Likewise, different persons, either Robert or I, could utter this sentence. So different speakers constitute another index. There are more indices, such as place (or physical world), possible world and so on. These indices will get an individual fixed.

So, given an index in a context of possible worlds, an individual would have its existence identified and then an individual proposition would get fixed in the context of possible worlds. Once an individual proposition is fixed, it is possible to put it to evaluation in a context. The context used to evaluate an individual proposition is supposed to be specified in the similar fashion. The proposition *donkey(x₁) & John-has-bought(x₁)* depends for its truth on a specified context in which there is a coordinate of index corresponding to that in the context for fixation of the proposition. Thus *John has bought a donkey* is true in a context in which John bought a donkey from sometime in the past up to now. However, the truth of the proposition is not dependent on specific choices of index of context chosen for evaluation. Rather its truth is closely connected with what Lewis called shiftiness of some feature of context⁷. *John has bought a donkey* is true now if and only if *John buys a donkey* is true sometime in the past no matter how the utterance time *now* is specified in the context. Or we may put it like this, with every possible indices of context the fixed proposition is determined to have a truth value as long as the rule of shiftiness could be implemented in a rigorous way. Therefore the proposition has a necessary truth in a certain context by a certain rule. This conclusion is very important to understanding of presupposition.

Let's put the proposition *John has bought a donkey* in a different context for evaluation. In this context the proposition is false. But it is not that the rule of shiftiness is not abided by in the context. Rather that the propositional content is not accepted in this context to the effect that with

⁷ Lewis (1980, reprinted as Chapter 2 of Lewis (1998, p. 27)) describes the rule of shiftiness as follows: "Often the truth of a sentence depends on the truth of some related sentence when some feature of the original context is shifted." He gave the following examples: 'There have been dogs.' is true now iff 'There are dogs.' is true at some time before now. 'Somewhere the sun is shining.' is true here iff 'The sun is shining.' is true somewhere. 'Aunts must be women.' is true at our world iff 'Aunts are women.' is true at all worlds. 'Strictly speaking, France is not hexagonal.' is true under stricter standards.

every possible indices of context the fixed proposition has a necessary false value. However this claim is also based on the literal implementation of the rule of shiftiness. We have seen that in both cases the proposition is to be evaluated by the same rule of shiftiness. Without the common rule such as the rule of shiftiness evaluation would be incommensurable.

4. *Non-defective Context Revisited*

Given the more detailed analysis of propositional concept with indices specification, let's now refine our definition of non-defective context. There are two issues to address here. The first issue is how propositional content is to be fixed in a non-defective context. As analyzed above, a proposition is a function from possible worlds to truth values and this function could be specified to the effect that specification of indices in a context of possible worlds would identify individuals that are to satisfy the predicates in a proposition. Any proposition is to be framed with indices of various sorts. But employment of indices is dependent on a specific proposition as a rule to specify a certain relation between possible worlds and truth values. The rule displayed from a proposition could be applied to any possible worlds. In the possible world *i*, this rule is applied as follows: the utterance of (1) took place at a certain point of time—*now* in the speaker's mind—but it is about a donkey John bought sometime before the utterance. In fact, the utterance time is arbitrary in terms of the speaker's epistemic intension⁸. For everything the speaker knows *a priori*, he or she takes a point of time as *now* in his or her experiences. The possible world *i*, as the speaker's empirical world, has been attributed to existence *a priori*. So the utterance time is something that is essential to the speaker's experiences. In other words, the speaker has no choices but to take it for granted. As a matter of fact, what the speaker takes for granted is propositional content specified with coordinates of index.

It is the same case with the possible world *j*. In the possible world *j*, Robert took the fact of

⁸ Chalmers (2002, pp. 608-633) defined "a thought's *epistemic intension* as a function from scenarios to truth-values. The epistemic intension of a thought T is true at a scenario W when W verifies T, and is false at a scenario W when W falsifies T. W verifies T when it is rationally inconsistent to accept that W is actual and deny T, and W falsifies T when it is rationally inconsistent to accept that W is actual and accept T."

utterance time for granted. More than that, he took all the fact about the proposition *John has bought a donkey* for granted except the propositional attitude he took towards the proposition. This is because the propositional content he took for granted could be specified with coordinates of index which, in turn, are determined by a specific proposition. Ideally there is a context in which coordinates of index will fix the whole set of $\{x_1, x_2, x_3, \dots\}$ so that it will exemplify an individual proposition in the discourse domain⁹. A non-defective context requires the same proposition be fixed in two possible worlds. This requirement amounts to full specifications of indices of a context.

The second issue is how a fixed proposition is to be evaluated. Our previous discussions tell us that with every possible indices of context of possible worlds a certain individual proposition will be evaluated and determined to have a truth value either true or false depending on which possible world to choose. The different truth values in the two possible worlds i and j are due to different propositional attitudes. Different as propositional attitudes are, the content of attitudes is the same. This is because there is common propositional content and also because the rule of shiftiness is observed equally in the two possible worlds i and j with regard to every possible indices of context.

As is discussed above, Robert and I took the content of my utterance of (1) for granted, but we have different attitudes towards it: I accepted it as I make this utterance but Robert rejected it. However if we had stood in each other's shoes, our respective attitudes would not have changed. Evaluation of a proposition is understood in a metaphysical sense in that given any specification of an index in a context truth condition of a proposition will be specified as long as the rule of shiftiness is rigorously observed. It is true in the possible world i where I am and it is also the case in the possible world j where Robert is. What is the difference whether we take each other's place or not? After all, we hold the same epistemic intension.

So, what is a non-defective context? It is a context in which a proposition is fixed *a priori* and its

⁹ Similar idea has been given a full account by Kratzer (1986).

truth values are determined metaphysically. In order to well understand this definition, we had better take a look at something about a defective context. In the possible world k where Richard is, some other things are thought to be the content of my utterance of (1). Richard took this fact for granted. For all the things Richard knows *a priori*, he takes as actual the possible world where the proposition *John bought a mule* is true. So his epistemic intension is different from Robert's and mine. Robert and I hold the same epistemic intension in the sense that for everything we know *a priori* we take as actual the possible world where the proposition *John bought a donkey* is true. Just because Robert shares epistemic intension with me, it is possible that our propositional attitudes be commensurable in quality. But Richard's propositional attitude cannot be weighed in the same measure unless his epistemic intension is assimilated to ours.

In the matrix, Richard judged the proposition *John bought a donkey* as true because he held the same epistemic intension as Robert and me. In the same train of reasoning, he would have judged the proposition *John bought a mule* as false had he held our epistemic intension. But this false value is essentially different from the false value assigned by Robert to the proposition *John bought a donkey*. The former results from a cross-epistemic intension: it is impossible for a person who takes as actual the possible world where the proposition *John bought a donkey* is true to judge as true the proposition *John bought a mule*; while the latter arises from different propositional attitudes from the same epistemic intension. Truth values determined in the way of the former are irrelevant to metaphysical sense of truth conditions of the proposition because the proposition *John bought a mule* is to be put to evaluation in a context in which any specification of indices of context would be irrelevant to truth conditions of the proposition no matter how the rule of shiftiness is applied. Therefore the former is not allowed in a non-defective context whereas the latter is allowed. Similarly the true value assigned by Robert to the proposition *John bought a mule* is not allowed in a non-defective context because it is also due to a cross-epistemic intension.

Let's summarize what we have said about a non-defective context. A non-defective context is a context in which a proposition is fixed *a priori* with the result that relevant propositional attitudes are from the same epistemic intension, and its truth values are determined metaphysically in the

sense that the propositional attitudes from the same epistemic intension would give rise to truth values with whatever possible indices of context under the rule of shiftiness as truth condition.

Our analysis of non-defective context boils down to the following things:

In a non-defective context,

- (i) Truth values of a proposition are given by propositional attitudes, which are from different possible worlds;
- (ii) Propositional attitudes are to be compared only from the same epistemic intension;
- (iii) Epistemic intension is got from application of the rule of proposition function;
- (iv) Proposition function is something indeterminate unless semantic value, an entity corresponding to a certain type of linguistic expression, provides adequate information for the account of theory of language.

A little more illustration for (iv): the proposition *John has bought a donkey* is symbolized as a proposition function of the form $f(x) = \text{an } x: \text{donkey}(x) \ \& \ \text{John-has-bought}(x)$, which gives the rule that there is an individual in the discourse domain such that it satisfies the two conjunctive predicates. The same proposition can also be represented as a proposition function of a different form $f(x,y) = a(x,y): \text{has-bought}(x,y)$, meaning that there is a ordered pair (x,y) that satisfies the two-place predicate *has-bought* (x,y) . Applications of the two proposition functions would result in different ways in which a certain epistemic intension could be formed.

5. Speaker Presupposition

Gauker borrowed an example from Karttunen (1974) to show the phenomenon of informative presuppositions¹⁰.

- (2) We regret that children cannot accompany their parents to the commencement exercises.

¹⁰ Gauker (1998, p. 160)

On one reading, the utterance of (2) expresses the speaker's intention to inform the parents that children will not be permitted to attend the commencement exercises. It seems that in this case the participants do not have the same presupposition in the conversation. Does it mean that speaker presupposition fail in the interpretation of this utterance context? We will be using theory of non-defective context, as developed above, to handle this problem.

The speaker and the audiences held different epistemic intensions before (2) was uttered. The speaker took as actual the possible world where it is true that children cannot accompany their parents to the commencement exercises, while the audiences would not take that possible world as actual. So the speaker would not accept whatever the audiences had in mind before the utterance of (2), as the audiences' epistemic state is different from the speaker's at that time. But it does not mean that the speaker would reject what the audiences had in mind, because he would be incapable of doing that since what the audiences had in mind is irrelevant to the speaker's propositional attitude. In these circumstances, the speaker could not assume anything that might have been in the audiences' head. Instead, he had no choices but to presuppose that there is a certain auditor who holds the same intension as him and who would have either agreed or disagreed with what he said about (2). However this imagined auditor does not belong to the audiences who are supposed to be addressed to. So far as it goes, the conversational context seems to be pointless.

Nevertheless the story has not finished yet. Had the speaker been in such a possible world where he knows nothing about (2) just like his audiences, what would have occurred to him? He would have had nothing relevant to the utterance of (2) in his mind. After all, his epistemic intension would not allow him to get any knowledge about (2) in that world. Although he could still have taken a certain attitude towards some proposition, he would have had nothing relevant to the propositional attitude. The propositional attitude he could have had in that world is, in fact, the one he has got from his epistemic intension. In other words, the propositional attitude from his epistemic intension is the same no matter what possible world he is in. Moreover the propositional content fixed by his epistemic intension will not change even though he is in the above-mentioned possible world. Stalnaker treated speaker presupposition as propositional attitude. So the speaker

presupposition is attributed to a necessary existence in the sense that in every possible world there exists the same speaker presupposition. Then the audiences are supposed to take the speaker presupposition as something of necessity. They have no reasons to doubt the existence of speaker presupposition.

Furthermore, suppose the audiences share the same presupposition with the speaker. They would adopt the speaker's epistemic intension, taking the content of (2) for granted. In this case, they would hold relevant propositional attitudes towards the content of (2), either accepting or rejecting it, given adequate contextual information. But, to a certain extent, it is not unreasonable that these propositional attitudes are even available to a possible world where the content of (2) is unknown to the audiences, although they are relevant to nothing in that world. Therefore, existence of the propositional attitudes is independent of whether or not the audiences share the same epistemic intension with the speaker. Admittedly, one of the propositional attitudes is, in fact, speaker presupposition on the part of the audiences.

So far, we have seen that speaker presupposition necessarily exists whether or not the audiences share the speaker's presupposition that children will not be allowed to attend the commencement exercises. Speaker presupposition, as a propositional attitude, comes from epistemic intension of the participants in the conversation, which, in turn, results from application of proposition function. The proposition function is determinate since (2) is not ambiguous between interlocutors. So the speaker presupposition is specified in a fixed way to the effect that it could be held by anyone in an equivalent fashion.

In other words, speaker presupposition as a propositional attitude is a necessary requirement of the conversational context. Whatever interpretation there is to the conversational context, speaker presupposition is something that cannot be excluded. When (2) was uttered, speaker presupposition is required to assume that children will not be allowed to attend the commencement exercises; when the utterance of (2) was heard, speaker presupposition is needed to understand what the speaker regretted. Although speaker presupposition occurred twice in this conversational context, there is no difference in both the occurrences. The proposition

presupposed is, of course, the same in the conversational context.

Why did speaker presupposition occur twice at two different points of time? Because the context in which (2) is uttered is a defective context but it will change to a non-defective context when the utterance of (2) was heard. Therefore informative presupposition starts from a defective context and ends in a non-defective context.

6. Conclusion

Our analysis of informative presupposition shows that a context is dynamic. The process might be from a defective context to a non-defective context. A defective context is due to different epistemic intensions of the participants in the conversation. In general, a conversational context is anchored first by epistemic intension of the person who initiates the conversation. His epistemic intension is determined by application of a proposition function that, as a rule, specifies how a possible world is related to a truth value. Then the context would be changing in the direction of getting a certain epistemic intension shared by the participants in the conversation with the result that a non-defective context comes into being. The reason why it is possible for a certain epistemic intension to be shared by more than one person is that speaker presupposition, as a propositional attitude arising from the epistemic intension, exists necessarily between the persons involved. Only in a non-defective context could an agreement be reached on the propositional content between participants in the conversation, which lays the foundation for conversational acts.

A non-defective context manifests the fact that at any point of the conversation there is something presupposed and also there is something else asserted. The utterance of (1) shows that it is presupposed by Robert and I that John has bought a donkey. But it is asserted to be false by Robert and to be true by me. In the case of the utterance of (2), the fact is presupposed that children will not be permitted to attend the commencement exercises, while the speaker expressed his regret over it and the audiences were informed of it.

Furthermore, any assertion is grounded in some presupposed fact(s), known as a context set, but it contributes to updating the context set. Hence comes evolution of context. Nonetheless the point in a conversation that counts is “the equilibrium position of a non-defective context”¹¹, where the participants in the conversation share a common ground. Recently, Stalnaker has told us, “the common ground is just common or mutual belief and that what a speaker presupposes is what she believes to be common or mutual belief.”¹² It seems that the Stalnakerian project is being pushed to a more challenging philosophic enterprise.

Alternatively, we might as well cut across this on-going line and approach the problem the other way round. We do not ask what propositional attitude speaker presupposition is, but attempt to demonstrate how it is necessary for speaker presupposition to exist. We do not define what a speaker presupposes, but rather give an account of how the presupposed propositions are to be fixed in a certain conversational context. Those are what this paper is about.

¹¹ Stalnaker (1978, reprinted as Chapter 4 of Stalnaker (1999, p. 85))

¹² Stalnaker (2002, p. 704)

REFERENCES

- Chalmers, David (2002): 'The Components of Content', in David Chalmers (ed.), *Philosophy of Mind: Classical and Contemporary Readings*, Oxford University Press, pp. 608-633.
- Gauker, Christopher (1998): 'What Is a Context of Utterance?', *Philosophical Studies* 91: 149-172.
- Kratzer, Angelika (1986): 'An Investigation of the Lumps of Thought', *Linguistics and Philosophy* 12: 607-653.
- Lewis, David (1970): 'General Semantics', *Synthese* 22: 18-67. Reprinted in Lewis (1983, pp. 189-229). Page references to Lewis (1983).
- Lewis, David (1979): 'Scorekeeping in a Language Game', *Journal of Philosophical Logic* 8: 339-359. Reprinted in Lewis (1983, pp. 233-249).
- Lewis, David (1980): 'Index, context, and content', in Stig Kanger and Sven Ohman (eds.), *Philosophy and Grammar*, Reidel Publishing Company, Dordrecht. Reprinted in Lewis (1998, pp.21-44). Page references to Lewis (1998).
- Lewis, David (1983): *Philosophical Papers, Volume 1*, Oxford University Press, New York, Oxford.
- Lewis, David (1998): *Papers in Philosophical Logic*, Cambridge University Press, Cambridge, UK.
- Neale, Stephen (1990): 'Descriptive Pronouns and Donkey Anaphora', *The journal of Philosophy, Volume 87, Issue 3*: 113-150.
- Simons, Mandy (2003): 'Presupposition and Accommodation: Understanding the Stalnakerian Picture', *Philosophical Studies* 112: 253-278.
- Stalnaker, Robert (1972): 'Pragmatics', in Donald Davidson and Gilbert Harman (eds.), *Semantics of Natural Language*, Reidel Publishing Company, Dordrecht, pp. 380-397. Reprinted in Stalnaker (1999, pp. 31-46).
- Stalnaker, Robert (1973): 'Presuppositions', *Journal of Philosophical Logic* 2: 447-457.
- Stalnaker, Robert (1974): 'Pragmatic Presuppositions', in Milton Munitz and Peter Unger (eds.), *Semantics and Philosophy*, New York University Press, New York, pp. 197-213. Reprinted in Stalnaker (1999, pp. 47-62)

Stalnaker, Robert (1978): 'Assertion', in Peter Cole (ed.), *Syntax and Semantics 9*, Academic Press, New York, pp. 315-322. Reprinted in Stalnaker (1999, pp. 78-95). Page references to Stalnaker (1999).

Stalnaker, Robert (1998): 'On the Representation of Context', *Journal of Logic, Language, and Information* 7: 3-19.

Stalnaker, Robert (1999): *Context and Content*, Oxford University Press, Oxford, UK.

Stalnaker, Robert (2002): 'Common Ground', *Linguistics and Philosophy* 25: 701-721

Von Stechow, Kai (2000): 'What Is Presupposition Accommodation?' Manuscript, MIT.

Yuncheng Zhou

Department of Foreign Languages

Tsinghua University

Beijing, 100084

P. R. China

E-mail: yczhou@mail.tsinghua.edu.cn