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Indexicals and the character shifting theory

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Indeksikaalid ja karakteri nihkumise teooria

Tarun Gidwani

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1. Introduction

In this thesis, I am going to argue that the character shifting theory fails to give an adequate semantic account of indexical expressions. I present two main arguments. The first is that the character shifting theory cannot provide us with a successful semantic account of indexical expressions when it comes to their usage during postcard communication. The second is that the character shifting theory will be unable to standardize a single rule with regards how indexical expressions refer when we use them during internet communication

Roughly speaking, indexicals are those expressions whose reference varies from one context to another. This differs from non-indexical expressions where the reference is relatively fixed. I will explain this further in the paragraphs below. After that, I shall explain why this difference is important for the character shifting theory and subsequently for my thesis against it. Take the following sentence:

(1) Tallinn is the capital of Estonia

When I utter (1), and when you utter (1), it is safe to say that when using the expression "Tallinn" we refer to the same object, which is the city of Tallinn. However, now take the following sentence:

(2) I am fine

If I utter (2), I will be talking about me being fine. Whereas when Tom utters (2), he will be talking about himself being fine and not me. The difference between (1) and (2) is due to the difference between the expression such as "Tallinn" which occurs in (1) and an expression such as "I", which occurs in (2). That which is referred to when the expression "I" is used, changes from one context to another. In our example, it changes from one speaker to another. If I had to say whether (1) was true or false, I would not need to consider who is uttering it. I

also do not need to consider where and when it is being uttered. But when it comes to (2), the truth or falsity of the utterance does depend on contextual factors. It is for these reasons that “I” is considered to be an indexical expression. Arguably, "here", "there", "that", "this", "she", "he", "him", "her", "today", "yesterday", "tomorrow", and "we" also fall into this category of expressions.

I mentioned that the character shifting theory is a theory about indexical expressions. But what does the theory seek to achieve? And why is the difference between indexical expressions and non-indexical expressions important for the character shifting theory? It will take several sections to answer these questions. However, in the following few paragraphs I will sketch a brief answer and then expand upon it.

1.1 Semantic Theory:

The character shifting theory is a theory of meaning (also referred to as a semantic theory). One of the ways a theory of meaning explains what an expression or utterance means by giving us an account of the conditions in which the utterance is true or false. This is called giving the truth conditions of an utterance. When we utter a sentence, we say or express something. This is sometimes also called as the proposition or content of that utterance. When we utter (1) what we express is that *Tallinn is the capital of Estonia*. What is expressed by a sentence helps us in determining whether the utterance is true or false – in other words, its truth value. The truth value depends on what the sentence expresses and the way the world is. The sentence (1) is true when uttered at a time when Tallinn is the capital of Estonia. It would have been false if history would have unfolded differently and Tallinn would not have been the capital city of Estonia. Therefore the truth value of an utterance depends on what the sentence expresses and the state of the world in which it is assessed in.

A semantic theory that gives us truth conditions of utterances in a given language is successful if, among other things, it correctly predicts truth values that the speakers of language assign to its utterances. Truth value judgments are simply the truth values – truth or falsity of given utterances that ordinary speakers of the given language assign to each utterance. For instance, it is most plausible that ordinary speakers will judge the utterance (1) to be true. A semantic theory that predicts this truth value judgment in the case of in (1) will be successful in that regard. Therefore, the data with regards to which such a theory theories are evaluated is these truth value judgments.

The character shifting theory is a semantic theory about indexical expressions. In simple terms, the theory argues that what we refer to when we use an indexical expression depends upon what medium of communication we use the expression in. There are rules that tell us what the referent in each medium of communication should be. Therefore, in different such communication media have different truth conditions. The character shifting theory proposes that these rules are established by social convention. People begin to use indexicals in a certain way with respect a medium of communication. Eventually, a dominant use emerges and becomes the convention which the character shifting theory then formalizes into a fixed rule (Michaelson 2013). When I said that my thesis is against the character shifting theory, what I do is to first show that the theory fails in predicting the truth value judgments of the competent users towards the utterances containing indexicals. Secondly, I show that for certain media of communication, we cannot have a single way of using an indexical that the character shifting can formalize into a standard rule. These are the central aims of this thesis.

1.2 Thesis Outline

In order to achieve my aims, several other explanations need to be made first. This is what will form the major part of first two sections of my thesis. We saw that for indexical expressions, their truth or falsity depend on the context, while for non-indexical expressions they do not. Therefore, there is a difference in giving truth conditions for such expressions which we shall first see. There have been, however, semantic theories that account this difference between an indexical and non-indexical expression and successfully give the truth conditions.

In this thesis, we concern ourselves with one such theory that was proposed by David Kaplan (1989). Kaplan's theory has several appeals since it successfully explains the truth conditions of indexical containing utterances. However, it also has some limitations, which we will see in the sections that follow. Some philosophers have made modifications to Kaplan's theory that overcome the shortcomings and still explain the conditions in which utterances that contain an indexical are true or false. This is a thesis about one such recent modification to Kaplan's theory. This modified theory is known as the character shifting theory. Michaelson (2013) gives several reasons why the character shifting theory is better than many other such modifications in giving us the correct truth conditions of indexical containing utterances. The main aim of my thesis is to argue that the character shifting theory fails in achieving this.

To get to what the character shifting theory is and why it fails there are several terms and theories that we must first understand. This is what will form the bulk of sections 2 and 3. In the beginning of section 2, I set the stage by explaining what problems we expect the character

shifting theorist to solve. In the first part of this section, I describe indexical expressions in more detail. I will do this mainly to show why indexical expressions pose a problem to a semantic theory that gives us truth conditions of sentences. In section 3, I consider a semantic theory by David Kaplan (1989) that successfully accounts for indexical expressions despite these problems. Kaplan's theory gives the semantic account without appealing to the subjective mental states of a speaker but only by capturing how speakers conventionally use an indexical expression into a formal system. Despite the apparent success of Kaplan's theory, there are certain limitations that it faces. Since the character shifting theory seeks to modify Kaplan's theory in a way that overcomes these limitations, it is important for my assessment of the theory that the reader knows what these limitations are and what it means to overcome them successfully.

In section 3 I present the most recent modification of Kaplan's theory that is the character shifting theory. Like the character shifting theory, this theory too does not appeal to the subjective mental states of the speaker in giving us the truth conditions of indexical containing sentences. It also gives a conventional account of indexicals, which is that it captures what is observed as standard usage of indexicals by competent speakers into a formal semantic system. I assess the character shifting theory on all the parameters we expect it to fulfill by the time we reach this section.

I show that if we accept the claims of the character shifting theorist then we will make incorrect truth value predictions regarding indexicals when they are used in postcard communication. I also show that for certain virtual communication it will be very difficult for the character shifting theory to conventionalise our indexical usage into a semantic theory that correctly gives a rule using which we can predict the intuitive truth value judgements speakers will give to indexical containing utterances over the internet. In both these cases, I consider several ways by which the character shifting theorist can defend his theory against my arguments and then show why each of these fails.

2. Kaplan and Indexicals

2.1 Indexical Expressions and theory of meaning

Before I talk about the character shifting theory, I need to first establish the challenges that we face with regards to giving truth conditions for indexical expressions. These are related to each

other in ways that will be clear by the end of the section. The two challenges are *context sensitivity* and *stability across contexts*.

2.1.1 Context sensitivity

Indexical expressions behave differently when compared to non-indexical expressions because the referent of these varies from context to context. We call this phenomenon *context-sensitivity*. This poses a problem to the way such a semantic theory gives the truth-conditions of utterances.

Take the following sentence:

(3) Barack Obama was the president of U.S.A in 2015.

The *extension* of a sentence is the truth value and the *intension* is the proposition it expresses. A proposition is simply *what is said* by the sentence when we utter it, which can then be assessed for truth or falsity in the given world. For (3) *what is said* is that Barack Obama was the president of U.S.A in 2015. The intension of (3) will be true if it expresses a truth with respect to the facts of the world. Therefore, once we know what proposition is expressed by the sentence, we can determine the truth-value depending on the state of the world that it is evaluated in.

For the above theoretical set-up to work, it is important that the referent of the expression "Barack Obama" in (3) does not change with the context. In whichever context it is used, the referent remains the same. When I utter the expression and when, say, my friend Jill utters the expression, we are both referring to the same individual. This means that the proposition expressed by the (3) that is to be evaluated for truth values remains the same across the speakers who utter it.

To indexicals, this does not successfully apply. This is because, as we saw in section 1, what is expressed as a proposition by using indexicals is context-sensitive. Take the (2) again:

(2) I am fine

Even if different agents utter it, "Barack Obama" picks out the same referent and so the (3) has the same truth-value no matter who utters it. Unlike "Barack Obama", the expression "I" cannot be assigned a referent that is fixed across different contexts. Each utterance of "I" depends on the speaker of the utterance for its reference. The proposition expressed by (2) varies from speaker to speaker. Therefore, the truth-value of the propositions expressed by sentences containing indexical expressions, even when the facts of the world remain the same,

varies from one context to another. We cannot provide truth conditions for (2) without a context and in this case, the only context that seems to matter is the speaker who is uttering (2).

If we fixed that the expression “I” referred to me, when someone else utters (2) the same conditions under which (2) would be true for me would not hold for when they utter it. Therefore, for sentences containing indexical expressions, the conditions in which they are true or false must take the context into consideration because what is referred to when we use such an expression depends on the context of the utterance.

2.1.2 Stability across contexts

There is another challenge that we face while giving truth conditions for sentences containing indexical expressions. Let us take the example of the “I”. Although we cannot fix the referent of “I” without the context in which it is uttered in, there is some aspect of the meaning of the word “I” that is stable across different contexts. There is a stable meaning that we exploit while communicating using the word “I” although it refers to different speakers in different contexts. Arguably, it is this stability of its meaning that allows us to successfully communicate what we do when we use the expression. If I uttered “I” to a competent user of language, she will normally understand that I am referring to myself.

Plausibly, we use the word “I” to refer to ourselves because the stable aspect of its meaning is that it always refers to the speaker who utters it. This stability of meaning across contexts is as important a feature of indexicals as is the variability of meaning across contexts. Both these phenomena are also found in other indexical expressions such as “now”, “here” and so on. Because these occur together in an indexical expression, it poses a problem in fixing the truth or falsity of utterances containing them. If we fixed the referent of “I” to a particular person to explain the stability of meaning across different contexts, then the same conditions in which it true for one person uttering it will not hold for another person uttering it. If we merely limit the meaning of “I” to just *the speaker of the utterance* then it will be insufficient in determining the truth or falsity of the sentences containing “I” which changes depending upon who the speaker actually is. Both the challenges, therefore, exist due to duality in the semantic nature of indexical expressions.

To sum up, there are two challenges in giving truth conditions for sentences containing indexicals:

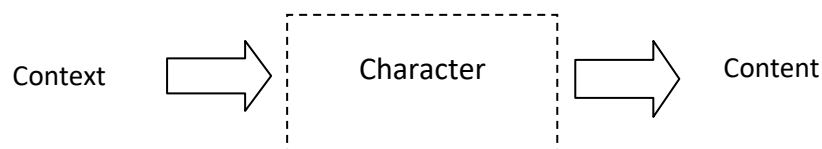
- i. It is unable to give a way to assign truth-value to the proposition that is expressed by an indexical containing. This is because the referent of such an expression varies from one context to another.
- ii. It is unable to explain the stable aspect of meaning in an indexical which does not vary across the different uses of the expression.

2.2 Kaplan's Semantic Theory

In this section, I introduce Kaplan's theory in response to the challenges that I listed above. Since the character shifting theory is a modification of this theory, I will also describe why Kaplan's theory is attractive. This is so that we understand why the character shifting theory seeks to preserve Kaplan's theory despite its limitations, which I shall describe in the sections following this one.

According to Kaplan (1989), expressions have two aspects of meanings: character and content. Through these two aspects, one will be able to give the truth-conditions of sentences containing indexicals while allowing their content to vary from one context to another. It will also explain what is stable in the meaning of indexical expressions.

The first aspect in Kaplan's semantic theory is a rule, called character, which determines the content of an expression at given context. Its character, the rule, of an expression is a function from contexts to contents. It takes the context as its input and gives the content as the output. This content can then be evaluated for the truth value in the given world.



(Figure 1: Character as a function)

Because of this arrangement, the indexical containing sentence can express different propositions in different contexts, which is exactly what we need to be able to determine the truth and falsity of such sentences uttered in different contexts. For instance, the character of the word "I" is a rule that tells us what the content of "I" is in a given context. Arguably, the

rule governing this indexical gives us the speaker of the expression as the content each time it is uttered. If "I" uttered by John, the rule generates the content as John. Without this dual semantic arrangement, we saw that the (1) only expressed one proposition since it did not account for changes across contexts. This is why there was confusion in what proposition would be expressed by (2). In Kaplan's (2) expresses a proposition depending on the context it is uttered in. I will explain more about what rules govern indexical expressions. Before that, we shall see the second aspect of meaning in Kaplan's theory.

Take the indexical containing sentence uttered by John:

(4) I am hungry.

The content of (4), in John's context, is a function from a possible world to truth-values. The value of content at a given world is true if and only if John is hungry in that world. This is the second aspect of meaning in Kaplan's theory. Once a proposition, which is the content, is expressed, then it is evaluated for truth-value with respect to the given world.

Kaplan's theory gives us two aspects of meaning. Through this, it meets both the challenges that I listed at the end of the preceding section. First, in the case of indexical expressions it helps in giving the truth conditions despite the different propositions expressed in different contexts, and secondly, it also explains the stable aspect of meaning across different uses of such expressions.

I will explain using (4) how it meets the second challenge. When I utter (4) and you utter (4) we are both using the same expressions to say different things. I am using it to express my hunger and you are using it express yours. We saw Kaplan's theory captures this easily since it predicts that the contents expressed by (4) in two different contexts are different. But there is something stable across the two utterances. There is a reason why we both use the expression "I" to talk about our hunger. Each time we utter (4) we are talking about our own hunger and not someone else's. This stable aspect is explained by characters, which is the first aspect of meaning in Kaplan's theory. In the case of indexicals, it is a fixed rule that governs what content is expressed in a given context. The expression "I", no matter in which context it is uttered, has a single *character* across all utterances. Plausibly, this captures the dictionary meaning which, for "I" is presumably that *it refers to the speaker*. Therefore, this aspect of its meaning is stable across different contexts of use. That is what explains the stability in the usage of the indexicals. We use "I" to refer to oneself because the character that governs it is fixed to being a rule that returns the speaker as the content of the expression no matter in

what context it is used. Kaplan gives such fixed character rules for other indexical expressions too. For “here”, the rule returns the location of the utterance as the content and for “now” it returns the time of the utterance as the content.

Another feature of this semantic theory is that at the same time, two different indexicals can be used to have the same content. An example from Kaplan (1989) should make this explanation clearer:

My friend sees my clothes catch fire and utters

(5) His pants are on fire

I react to this by screaming,

(6) My pants are on fire

Both (5) and (6) have the same content, but different character since the two indexical expressions have different rules. Therefore character does not independently determine the content and vice versa. The contextual parameter is, therefore, essential for determining the content of an indexical.

I ended the last section by listing the two challenges we expect a semantic theory to address with regards to indexical expressions. Kaplan’s theory, at least *prima facie*, addresses these two challenges. It allows sentences containing indexicals to express different propositions in different contexts so that the truth values can be determined in each such context. And it also establishes a stable meaning for indexicals that does not vary across contexts. This is why Kaplan’s semantic theory is considered successful. It is also one of the reasons why the character shifting theory retains most of this theory despite its limitations – which we will come to in the next section. Before that, I will describe two different kinds of indexicals. Only one of them is the concern of the character shifting theory, and that is why I need to distinguish that one from the other.

2.2.1 What are Pure indexicals?

Kaplan (1989) distinguishes between two kinds of indexical expressions: pure indexicals and demonstratives. The characters concerning the two have different features. The limitation that Kaplan’s theory is challenged with, and which the character shifting theory seeks to rectify through a modification, is concerned with sentences containing pure indexicals with uttered at particular sorts of context. So that we know how they are different from non-pure indexicals, I have to present the following difference:

2.2.1.1 Pure Indexicals:

Expressions which fall under the category of pure indexicals exhibit more regularity than many other context-sensitive terms such as demonstratives. No associated demonstration or intention is required from the speaker for the content to be generated in a given context. The character rules which govern their use automatically determine the content in each context (Kaplan 1989). Therefore, the referent of the expression, and ultimately their truth-values are determined without appealing to what the speaker demonstrated while using these expressions. This is what I will mean when I use the word “automatic” in this thesis, which is that the referent of expression is determined without an associated demonstration or appeal to speaker intentions. Examples of indexical expressions in this category include “I”, “here” and “now”. When I use the word indexicals in this thesis, I will mean such pure indexical uses.

2.2.1.2 Demonstratives:

Demonstratives, on the other hand, are indexicals that require an associated demonstration or intention from the speaker. Examples of demonstrative expressions include “this”, “that”, “her” and “him”. Compared to pure indexicals, demonstrative expressions are not automatic. For instance, the utterance "that" does not automatically pick out its referent in a given context; it requires an accompanying additional factor, such as a demonstration that helps us to determine its referent. In order to determine the truth or falsity of sentences containing demonstratives, we need help from what the speaker pointed at, or intended to refer to.

In the introduction, I said that the main aim of this thesis is to assess whether the character shifting theory correctly predicts truth value judgments of competent users of language towards indexical containing sentences. I also said in the last section that the character shifting theory is specifically about explaining pure indexicals. Since the character rules that govern pure indexicals are different when compared to demonstratives, the manner in which truth value judgments are accounted in these two kinds of indexicals will vary. If the character shifting theory accepts this difference, which it does, then it accepts that the content expressed by utterances containing pure indexicals are determined without appealing to intentions or demonstrations. This will be an important restriction that I shall assess the character shifting theory within.

What are the features of the fixed intention-free character rules that determine the reference of pure indexical expressions? The contextual parameters that the character of the expression interacts with are limited to the speaker, time, and location of the utterance and the world it

occurs in. Kaplan's theory does not require an appeal to any parameter beyond the contextual parameter that the character rule concerning the indexical expression gives us. Significantly, the speaker's intentions do not form a part of the context since, as we just saw, the referent of the expression is determined automatically.

In the case of the pure indexical "I" for instance, the character is a function which takes as argument the contextual parameter, which is the speaker, and automatically returns the referent, the speaker as the value. In a similar way, the referents of other pure indexicals also determined by fixed parameters in a given context. For the expression "now" the referent is the time at which it is uttered by the speaker, and for the expression "here" the referent is the place at which the speaker utters the expression.

2.2.2 Pure indexical reference and convention

One might wonder why pure indexicals do not have speaker's intentions as a contextual parameter. It is important to understand the motivation concerning this since this is also what the character shifting theorist preserves with respect to Kaplan's theory.

There are two broad groups of theorists who give a semantic account of indexicals. The first group is known as the conventionalists and the second can be termed as the intentionalists. In the conventionalist tradition, which Kaplan himself belongs to, the semantic theory seeks to capture the social conventions that govern our uses of indexical expressions and then formalizes this convention into a semantic rule. The character rules governing indexical expressions that we saw in Kaplan's theory are a formal representation of the observed conventions that users of the language seem to follow with respect to the indexical expressions. When modifications are made to Kaplan's theory in response to the answering machine paradox, the conventionalist view is to retain the intention-free aspect of Kaplan's account and explain the semantic data by modifying Kaplan's theory to varying degrees while keeping the idea of a fixed formal rule intact. The character shifting theory also belongs to this group. In contrast is a category of theories where the intentions of speakers or the expectations of the audience of the speaker fix the reference of the indexical (Predelli 1998).

Proponents of conventionalist view see one major problem that concerns the intentionalist views. This is known as the Humpty Dumpty problem (Corazza et al. 2002). This concerns the fact that such views over-predict semantic variability. To put this simply, the concern is that if what is referred by an indexical expression is fixed by the subjective mental state of the speaker, then the referent of such expressions could vary wildly merely by simply changing the

speaker's intentions. For instance, a speaker (who is not Barack Obama) might form an intention that the indexical expression "I" refers to Barack Obama. However, unless the speaker is Barack Obama himself, there is no context in which the semantic referent of the expression would be Barack Obama. The same view holds true for other indexical expressions like "here" and "now". The Humpty Dumpty problem arises for the speaker intention view not just when the speaker intends the wrong reference as, but also when the speaker intends no reference of indexical expression, or in cases where the speaker intends more than one referent.

This is why giving a non-intention based semantic account is crucial to Kaplan's theory. It is also important for the character shifting theorist, or any theorist holding the conventionalist view. Although several responses from those who argue for the intentionalist view have been made against the Humpty Dumpty Problem (Gorvett 2005), this is the reason that a character shifting theorist gives for rejecting this view (Michaelson 2013). I will not argue against this. We will simply assess whether the character shifting theorist can explain our truth value judgments without appealing to intentions and then see whether or not he succeeds in giving us a conventional account. Before that, however, I shall describe the limitations that Kaplan's theory faces.

2.3 Answering Machine Paradox

This is a section that describes the limitations that Kaplan's theory faces. The success of the character shifting theory, among other things, depends on whether or not it can successfully overcome this limitation which I will describe using some examples.

If we accept Kaplan's theory, there are some interesting predictions that inevitably follow with respect to pure indexicals. Consider the following sentence:

(7) I am here now

The sentence (7) consists of pure indexicals "I", "here" and "now". This means that the contents expressed by it will be automatically determined by the character rules associated with the indexicals it contains with respect to a given context. We know from the section preceding this that the expression "I" refers to the speaker of the utterance, the expression "here" refers to the location of the utterance and the expression "now" refers to the time of the utterance. The truth conditions of (7) should be fairly simple. It is true just in case the speaker of the expression is at the place during the time she utters it. According to Kaplan (1989), a proper context is that at which the speaker is present while making the utterance.

Therefore, the sentence (7) should always be true in a proper context because while making the utterance the speaker is present and it will be true that she is making the utterance at the place and time she is making it¹.

Further, if (7) in proper contexts is always uttered as true, then according to the common principle of logic, its negation

(8) I am not here now

must be always false each time it is uttered

This seems to be an intuitive prediction that Kaplan's theory seems to capture in a formal manner. However, this seemingly trivial prediction that Kaplan's theory makes is actually an important one, because if we accept that the reference of pure indexicals are automatically determined using fixed character rules, and once we know the character rules that govern the pure indexicals contained in (7), then it is inevitable that (7) is true each time it is uttered in a proper context. If for some reason, it is shown that there is an utterance of (7) that is not true or an utterance of (8) that is true, then it poses a threat to the entire theory which Kaplan has proposed. There are certain instances of (8) that intuitively seem to be true despite Kaplan's theory predicting otherwise.

These instances, that form the challenge to Kaplan's theory, are collectively known as the answering machine paradox. Although this technically might not be a paradox, it was termed as such by Sidelle (1991) and has since been referred to by the same phrase.

This is the answering machine paradox: the semantics for "I", "here" and "now" seem to ensure the truth of any utterance of "I am here now" and consequently, the falsity of any utterance of "I am not here now", yet answering machines provide us with "I'm not here now's which are true" (Sidelle 1991, p. 526)

Take the sentence (8). Using an answering machine, I record (8) just before I am leaving my house. Suppose that a person who calls me at a time when I still have not returned, and listens to my recording of (8), it will be intuitively true. We know that the primary data that counts as

¹ Note, however, that (7) is not true in a way that is necessary. If I uttered (7), then it is a true sentence but it is not necessary that I am at the place of the utterance while I am uttering it. I could have been somewhere else. This is true for any speaker who utters (7); that is not necessarily true. Kaplan (1989) therefore says that (7) is a logical truth. This means that if we consider a proper context where the speaker is present at the location of her utterance, then (7) will be logically true each time she utters it, wherever she utters it.

evidence in favor of a semantic theory that explains the truth conditions of sentences are the truth-value judgments of its competent speakers. In the case of answering machine utterances, Kaplan's semantic theory is unable to account for such data since competent speakers would naturally judge (8) to be true if the speaker is not present at his house while they are listening to its utterance over the answering machine. If we accept this intuition, which I think we must because we can easily assume that a majority of competent language users will consider answering machine utterances of (8) to be true, Kaplan's theory is shown to be flawed. Kaplan's theory predicts that answering-machine occurrences of the particular sentences fail to refer, or are false since the theory does not allow such contexts to be considered as proper. Yet answering machines regularly and successfully communicate true information about specific individuals. Therefore, despite the success of Kaplan's theory in accounting for our truth value judgments with regards indexical containing sentences that are uttered during face-to-face communication, it fails to do them when they occur on recording devices such as the answering machine.

If we have to preserve Kaplan's theory, we have to make necessary modifications to it. This is what the character shifting theory seeks to do. But before we get to that, I will briefly explain two responses we can make that could make the answering machine utterances have no bearing on Kaplan's theory. I will describe these responses, dismiss them and move to the character shifting theory.

3. The character shifting theory

3.1 Overview

We began with the problem of a semantic theory not being able to give us truth conditions with regards to utterances containing indexicals. We saw that Kaplan's theory is an attractive solution to this problem. Using a dual notion of meaning, it allows for an indexical containing sentence to express different contents in different contexts. This solves the problem of being giving truth conditions for such sentences in different contexts. The dual aspect of meaning also retains what in the meaning of an indexical expression is stable across different contexts of utterance. Kaplan's theory, we saw, fails to predict the correct truth values when it comes to answering machines and other recording devices. Several modifications have come to its rescue. The character shifting theory is one such modification. It seeks to do this without appealing to speaker's intentions in fixing the reference of indexical expressions and maintain a conventional explanation of indexical reference. The aim of the character shifting theory,

therefore, is to give us intention-free and context-dependent truth conditions of indexicals not only when they are uttered in face-to-face communication but also when uttered in other ways of communication.

In the following sections, I will show that it fails to achieve this aim. Precisely, I will argue that

- Although the character shifting theory gives an adequate semantic account with respect to answering machine recordings it fails to do so for other kinds of communication; especially postcard communication.
- It fails to offer a plausible account of how indexical reference can be conventionalised into a semantic theory when it comes to our usage of indexicals over certain communication channels such as the internet and video communication.

In order to achieve this, I will first describe the character shifting theory and how it deals with answering machine utterances. Then I will present cases of indexical containing sentences used in postcard communication. I show that in these cases, truth value judgments that competent speakers would have with regards to indexical containing utterances depart from those that the character shifting theorist predicts. I then consider five ways the character shifting theorist can defend against the conclusions I draw from these cases. I also show how these defenses do not affect my conclusions and the character shifting theory still stands to fail with regards to postcard communication. Then using examples of indexical containing sentences communicated over the internet and video, I show that it will not be possible for the character shifting theory give a conventional semantic account for them. I also show that the manner in which our truth value judgments concerning indexical containing utterances depart from what character shifting theory predicts them to make indexical expressions vulnerable to the notion of ambiguity.

3.2 The character shifting theory

In this section, I describe the character shifting theory and how it meets the challenges that Kaplan's theory faces. We saw that in the answering machine cases if the indexical containing sentence is evaluated at the context of utterance (when the speaker is recording the message into the device), it can give us truth values that depart from the truth value judgments we intuitively have towards such utterances. According to the character shifting theory, the correct way is to evaluate such sentences at the context of playback (which is usually when the intended audience of the recorded message listens to it).

How does the character shifting theory allow for a shift in what context these expressions are evaluated at? Michaelson (2013) argues that the character governing the reference of an indexical expression is sensitive to the medium of communication the speaker is using the expression in. A medium of communication is a certain context-type and each such context type has a different rule that counts as the character of an indexical expression. Therefore, for the character shifting theorist the reference rules governing indexical expressions during communication through the answering machine is different when compared to face-to-face communication or postcard communication and so on.

For instance, when indexical expressions are used in communication through an answering machine, the character of indexical is a reference rule that gives us the speaker, location and time of the playback as the referent for the indexicals "I", "here" and "now" respectively. Once we modify the character in such answering machine cases, we get the correct predictions for

(8) I am not here now

as the speaker who records (8) is not present at the time of the playback which is the context at which such a sentence is to be evaluated. It thereby predicts the correct truth values when evaluated at the context of playback. The character shifting theory, therefore, modifies what is the character of indexical expressions depending on the medium of communication or context-type.

The following are some of the context types and the proposed rules that the character shifting theory assigns to them. For face-to-face communication, the expression "I" refers to the speaker, the expression "here" refers to the location of production, and the expression "now" refers to the time of production. For answering machine communication, the expression "I" refers to the owner of the line, the expression "here" refers to the location of playback, and the expression "now" refers to the time of playback. In postcard communication, the expression "I" refers to the author, the expression "here" refers to the location of production/inscription, and the expression "now" refers to the time of production/inscription (Michaelson 2013).

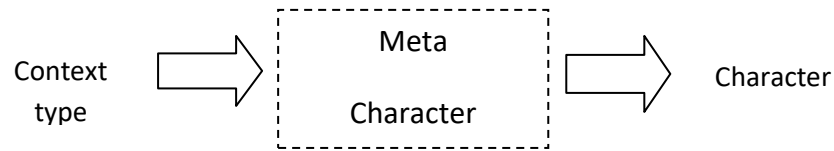
Let us see, using an example case by Predelli (1998), how the character shifting theorist deals with postcard communication. Take the sentence:

(9) It is beautiful here now

Suppose that I'm in India and my family is in Estonia. On one sunny day, I scribble (9) on a postcard and mail it to my family. A few days later they receive the postcard, but by now in India, it's raining and no longer beautiful. However, these weather changes don't affect my family's interpretation of the postcard because the context at which such a sentence is evaluated is the inscription (the "now" of my writing the postcard), and not when my family is reading it. If this was evaluated at the context of when the sentence is tokened, which is the context in which we would evaluate answering machine cases, then we would have predicted truth values contrary to intuitive judgments made by competent users of language. The character shifting theory modifies the rules for this context-type (postcard communication). Accordingly, (9) would be evaluated at the context of the inscription, which is when the author inscribes these sentences on the postcard. At the time of inscription, if the weather was beautiful the sentence would be true. Drawing upon this example, Michaelson (2013) argues that the truth conditions that the character shifting theory gives for such a sentence correctly predict the truth value judgements when it is uttered in postcard communication.

3.2.1 Character shifting theory and context invariancy

In section 2.1.2, we saw that indexical expressions are context-sensitive but they also have an aspect of meaning that is stable across contexts. Although the referent of each indexical expression depends on the context, there is a meaning that runs across different contexts due to which we seem to use these expressions for similar communicative purposes each time. Michaelson (2013) argues that the context-invariant aspect of indexical meaning is still retained in the character shifting theory because although the character rules governing indexical reference vary from context type to another, there is a meta-character that remains constant for all indexical expressions through all context types. It is arguably this meta-character that gives the meaning of indexical expressions its stability. With respect to the medium of communication or a context-type, there is variation in specific features of reference concerning each indexical expression, but there is invariance with regards to the fact that the referent of indexicals "I", "here" and "now" are still the agent, location and time respectively. For instance, the rule for the pure indexical "here" still remains the location; but what counts as the location changes depending on the communication channel. The context-invariant aspect of indexical meaning is maintained despite this shift in character rules. Indexical expressions still have a stable meaning across the different uses, even across different communication channels.



(Figure 2: Meta-character as a function)

Crucially, a feature of this context-variance is retained even within a context-type:

The claim is that we find both variation in such features across contexts, but invariance relative to particular sorts of context-types—regimented according to the type of recording technology employed in that context (Michaelson 2013, p. 525).

Although the character shifting theory allows for what counts as the agent to vary depending on what medium of communication this expression is uttered in, within one communication channel, the indexical character is fixed and does not change. For instance, in answering machine communication the location that is the referent of “here” is always the location of playback. In face-to-face communication, it always is the location of the utterance. All sentences that are uttered within a communication channel are evaluated with respect to one context as specified by the theory and this is not allowed to change. In summary, the meta-character rules governing indexicals do not change at all; while the character rules change from context-type to another but do not change within a context type.

The character shifting theory therefore gives us a way to explain truth value judgments towards indexical containing utterances that occur in different communication channels by changing the context which they are evaluated at. It seeks to do so in a way that retains the crucial aspects of Kaplanian theory in that character rules for indexicals are fixed and intention-free. By fixing the meta-characters and fixing the characters for each context-type it seeks to explain the context-invariant meaning of indexical expressions that we arguably exploit while communicating about an agent, location and time within a given medium of communication.

3.2.2 How context types are fixed

Why does Michaelson (2013) choose the medium of communication to be the context-type relative to which the characters of indexicals are fixed? He argues that when a new medium of communication is introduced, there are initially many ways to use an indexical expression due to which a coordination problem arises where “a desired outcome [in communication]

depends on multiple agents being able to coordinate their actions over time and despite no particular action seeming obvious to all the relevant agents” (Michaelson 2013, p.526) In the face of this coordination problem successful communication “depends on everyone repeatedly choosing the same way” (Michaelson 2013, p.526). Eventually, however, regularity arises where speakers will use this same way of using an indexical since they are incentivized to do this if they wish to successfully communicate about the desired agent, place or time. Once such a convention arises, it becomes a standard which the character shifting theory formalizes into a fixed rule for an indexical within that medium of communication. Importantly, Michaelson (2013) argues that when speakers deviate from this convention, it decreases their chance of successfully communicating using the relevant indexical expression.

Therefore, Michaelson (2013) retains the Kaplanian view that indexical reference does not appeal to the intentions of speaker. It is conventional in the sense that it gives a formal rule to what is observed as the standard way of using an indexical expression by the speakers with respect to a medium of communication in response to coordination problems arising from using these expressions otherwise.

3.3 Failure in postcard communication

In this section, I show how the character shifting theory fails to give a successful account of indexicals used during postcard communication and then consider five ways the character shifting theorist can defend his theory against my argument.

Before I present my example, I will first briefly show why the example I am going to present is different from the one Michaelson (2013) himself presents as a possible counterexample that his theory can resist. Consider:

(10) I am here now, of course, but not when you're hearing this

The character shifting theory makes bad predictions regarding the truth conditions of the above sentence. According to the rules fixed by the theory with regards to answering machine communication, the utterance is true when the owner of the line is present at the time and place of playback but not when the listener is hearing the playback. This gives a false or even a contradictory reading of the utterance. The character shifting theory seems to fail in giving the truth conditions of (10) since it should have been evaluated at the context of the playback, which tells us that the first part of the utterance must be wrong if the owner of the line won't be present at the location of the playback. But clearly, we intuitively know that the owner is referring to the location in the context of production, that is when he is recording the

utterance into the machine. This departs from what the character shifting theory predicts as truth conditions for this particular communication channel.

Michaelson (2013) explains away this bad prediction by claiming that the interpretation of the utterance does not seem “smooth and reflective”. This distinctiveness of the utterance makes it humorous, or even absurd and is to be explained in pragmatic terms. The idea here is that the utterance is false, even absurd but the competent speaker makes a false utterance to communicate something true despite truth value judgments. Cases like these are not accommodated into the construction of semantic theory since they would complicate the theory for a minor pay-off since the case seems like a marginal one. A sentence like (19) has a semantically false or absurd reading but the speaker nonetheless uses it to communicate something. His success in this communication does not depend on what the semantic theory predicts but for the pragmatic reasons. Therefore, and since (10) is not usually uttered, the semantic theory needs to modify itself to accommodate the truth value judgments concerning it. That would be risking the wide range of semantic data that the character shifting theory correctly explains to what a very marginal occurrence in our communication is.

For the sake of this thesis, let us acknowledge that such an utterance is a marginal case. I accept (10) is false and absurd, but a competent speaker nonetheless uses it for pragmatic purposes. In fact, (10) does appear absurd and such uses of indexicals can be uncontroversially deemed as irregular or non-conventional. This is because the speaker is making an utterance that sounds contradictory since he intentionally refers to two different locations in the same sentence. The first part of the sentence is referring to the time of the utterance and the second part of the utterance refers to the time of playback when the utterance will presumably be tokened by the intended hearer.

However, this in no way suggests that there cannot be conventional uses of indexicals that refer to different features of location and time within a single context type (therefore within the same communication channel). With conventional uses, I mean to propose examples that are not seemingly absurd or contradictory in the way that (10) is, which is that the speaker is not intentionally referring to two different times in the same sentence when uttering it. The examples that we are going to consider are all constructed in a way that avoids Michaelson’s defense with regards to (10). I do this to show that the character shifting theory fails to predict truth value judgments with regards to even well-formed sentences despite fixing the character rule for a given communication channel – especially when they are used during postcard communication.

According to the character-shifting theory, in the case of postcards, “I” refers to the author, “here” refers to the location of production, and “now” refers to the time of production. Imagine a scenario where I send a postcard to a friend to express wishes on her birthday. The following three sentences are inscribed among the things I have inscribed on the same single postcard:

(11) I am now in the University Library, which is where I am writing you this postcard from.

(12) I cannot believe you are so old now!

(13) I have taken enough of your time; you should sleep now.

What we are concerned with is the indexical expression “now”. When I inscribe (11) I use it to refer to the time of the production, which is in accordance with the character-shifting theory. But in the case of (13), I am clearly referring to the time of tokening. I am referring to the actual time when the postcard is being read and instructing my friend to open the parcel. In the case of (12), I could be referring to either the time of production or the time of the tokening. It seems more intuitive that I am referring to the time of tokening. What this shows is that unless we allow character rules to vary within a context-type, we cannot successfully provide truth conditions, especially with regards to postcard communication.

I will now consider five ways in which the character shifting theorist can defend his view against this counterexample and show that each of these ways fails and therefore establish that the character shifting theory is unable to provide us the correct truth conditions for indexical containing sentences that are used in postcard communication.

3.3.1 Multiple context-types within postcard communication

One argument that the character shifting theorist can employ against the conclusions of my example is that within postcard communication, there are various context-types. This would mean that within the range of postcard communication there is a context-type where the indexical "now" refers to the time of inscription and another context-type where the indexical "now" refers to the time of tokening or reading. This would be an invalid argument. According to Michaelson (2013), conventions arise for a medium of communication in response to conventions problems occurring during communication using that medium. One of the ways of using an indexical is most successful in communicating the intended to be conveyed. The examples I gave occur on a single postcard; what is referred to by the

occurrences of “now” in the first and last inscription is intuitively obvious to my intended reader. Suppose that the one of instance of “now” was inscribed on the first half of the postcard, and the other was inscribed on the other half of the poster. Only because each of these occurrences refer to a different time, the character shifting theorist cannot standardize one half of the postcard as one context type with a fixed character rule and the other half with another fixed character rule. This is because there is no coordination problem for the occurrence. If the first half of postcard was fixed as context type where indexicals are to be evaluated at the context of inscription, there is no difficulty in inscribing “now” in a way that will intuitively be evaluated at the context of tokening or reading. Both ways of using the indexical will succeed in the speaker communicating the conveyed content, therefore giving no incentive to the speaker for conventionalizing one of the uses. I could write the two inscriptions that contain “now” with each referring to the time of inscription and the time of tokening or reading respectively side-by-side and still produce intuitive truth value judgements in a way that does not create coordination problems for the speakers to which they might standardize a convention. Therefore, no single area or sub-set within the postcard can be standardized as a context-type where only a single fixed rule determines the reference of an indexical expression. Further, and more generally, if within a medium of communication there are multiple conventions that can be established it goes against the sense of regularity that the character shifting theorist aims to characterize a communication within a particular medium with².

3.3.2 “Now” as non-semantic

One could try to show that the occurrences of “now” in my examples are non-semantic. There are instances when “now” has no semantic bearing on the utterance. For instance, it can be used alongside a sentence in the following way:

(14) Now, now! Listen to me.

²It seems to me that since all the inscriptions that I use in my example occur on the same postcard, there could be no intention-free way of distinguishing these context-types. Needless to say, if we allow speaker intentions to determine which context-type is at play with respect to inscriptions on the same postcard, the same can be said about indexical reference itself. However, Michaelson (2013) motivates his account towards giving an intention-free account of indexical reference and therefore he cannot make this argument.

When someone utters (14) the expression “now” is used in the same manner as one uses the expression “well” or “oh” – the absence of the occurrence in the sentence does not change the truth conditions of that sentence and therefore the concerned expression makes no semantic contribution to it. For instance, imagine a friend asked me:

(15) How are you?

to which I replied:

(16) Oh I am very hungry

The truth conditions of (16) would be the same if we removed the expression “Oh”:

(17) I am very hungry

In (11) – (13) however, “now” does make a semantic contribution. The truth conditions of the sentences change depending on what time it refers to. When I inscribe (13) I use “now” to request my friend to sleep, the truth conditions of that sentence change completely if we consider the expression to refer to the time of the inscription than if we consider the expression to refer to the time of tokening. The former would be the case of me asking my friend to sleep at the time when I am writing the letter to her, even while she is not reading it. Therefore, the counterexamples are clearly instances of semantic tokens and the semantic theory dealing with such expressions cannot avoid is as being non-semantic. The truth value judgments we have towards (13) do count as semantic data that has a bearing upon the character shifting theory.

3.3.3 Bound Variable use

The second objection that Michealson (2013) can raise with regards to my example is to say that occurrences of the expression “now” in the example are bound variables. Expressions that are considered as indexicals can also be used as bound variables. In the example below, the expression in the sentence is bound to a quantifier phrase:

(18) Every boy in the school thinks he will pass the exam.

In (18), the expression “he” is a variable that is bound to the quantifying phrase “every boy”. In this case “he” is not a context dependent like an indexical is, because referent of the expression is fixed to the quantifier phrase “every boy” in different contexts of its utterance. Predictions that follow Kaplan’s theory with regards to pure indexicals will not apply in such case because the referent is determined not by the contextual parameters established by

Kaplan's theory but depending on the wider contextual parameters that determine the meaning of "every boy" in the relevant utterance.

Of the ways the character shifting theorist can respond to the counterexamples is by arguing that instances of "now" in the counter example are bound variable uses. This is a defence that Cohen (2013) employs when an example of postcard communication is shown to depart from the truth values predicted by his token contextualist theory³, according to which indexicals are always to be evaluated at the context of tokening (which in postcard cases would be the context of reading). Cohen (2013) argues that on postcards the occurrences of "here" and "now" on postcards are not cases of pure indexicals at all. They are bound variables whose reference is determined by the place inscribed on some part of the postcard and time that is stamped on the postcard or envelope. If this is true the sentence containing such expressions would be evaluated neither at the context of inscription or tokening since the place and time they refer to is not provided by the context but by the phrase they bind to. The truth conditions that a semantic theory gives with regards to indexical containing sentences would not apply to this use. Hence, postcard communication would not pose a problem to the character theorist's prediction for indexical containing sentences.

But this is an option that Michaelson (2013) already dismisses while assessing the success of the token contextualist theory. He explains that even if we accept the claim that occurrences of "here" and "now" on postcards are bound variable uses, it "still makes incorrect predictions" (Michaelson 2013, p. 532). Imagine a scenario where I send a postcard with the (21) inscribed on it. Now let us consider that I forget to send the postcard for weeks. Later, when I get to posting it, the envelope is postmarked with the date that is a week later than the date on which I wrote the postcard. If "now" was bound to whatever date was stamped on the envelope, one would have to evaluate the truth value of (21) with respect to the date that

³ Originally attributed to Sidelle (1991), Cohen's token contextualist theory (2013) argues that indexicals "I", "here" and "now" always refer to the agent, location of tokening and time of tokening respectively. This is different from Kaplan's theory where these expressions refer to the agent, location of utterance and time of utterance. If this modification is accepted, we predict the correct truth-values for answering machine utterances of "I am not here now" because when the sentence is tokened (or played) the agent is not present at the location of tokening (or playback). For face-to-face communication, the context of utterance and the context of tokening are identical, therefore preserving Kaplan's judgments regarding the sentence "I am not here now" when uttered face-to-face. Cohen's theory seems to work well for both these kinds of communication but fails to account for postcard communication. This failure is one of the motivations for the character shifting theory since Michaelson (2013) explicitly claims to account for postcard communication through his theory.

is postmarked. This would give us the wrong truth values since the expression “now” obviously refers to the day when I was writing (9) on the postcard.

The bound variable view faces another important problem. Suppose that the speaker didn’t actually mention the date on the postcard. Further, there is not even a date marked on the envelope because the postcard was inscribed and say, handed over to someone by hand. Michaelson argues that in this case, the token contextualist approach would just fail to provide us with truth conditions. This is because there would be nothing available for the alleged variable to bind to. Clearly, despite the fact that no date is mentioned on the postcard, we have intuitive truth value judgments with regards to postcard inscriptions that are un-dated. They still are used to refer to a particular location and a particular day. This information is usually successfully communicated to the intended reader who has some truth-value judgments regarding the inscriptions he receives on un-dated postcards. A semantic theory cannot avoid having to account for indexical containing sentences used in postcard communication.

Therefore, it would be difficult for Michaelson (2013) to argue that the expression “now” in our counterexamples occurs as a bound variable. When Cohen (2013) uses this defence, Michaelson (2013) dismisses them with reasons that I just described and agree with. For my counterexample too, let us assume that the postcard is un-dated and no location is inscribed on it. Further, no location is inscribed even on the envelope that contained the postcard. There is, therefore, no phrase that the expression can bind to. All three inscriptions above are thus clearly pure indexical uses in the sense that we expect the character shifting theory to deal with. My intended reader of the postcard will form intuitive truth-value judgments regarding these inscriptions. In fact, she will form truth-value judgments with respect to the conclusions I drew, which is that some occurrences of “now” are evaluated at the context of inscription and others at the context of tokening. This clearly departs from the truth conditions that the character shifting theory provides us with, thereby failing to give a successful semantic account of indexicals when it comes to communication over the postcard.

3.3.4 Rare cases

One other option that the character shifting theorist has is to argue that occurrences of the expression “now” in (11)-(13) are indexical uses but are too scarce to be counted as sufficient data for a semantic theory to be modified. If the character shifting theory explains a wide range of postcard inscriptions, leaving out certain inscriptions to the pragmatic explanation would be the right thing to do. This means that in my counterexample, all instances of “now”

would refer to the time of inscription as predicted by the character shifting theory but the speaker nonetheless uses them to refer to the time of tokening. That is, when I inscribe (13) I am actually making a false utterance but my reader understands what I intend to communicate despite this semantic falsity.

With regards to this objection, if all such instances of these are non-semantic, it would be a puzzle why this has not yet been absorbed into a formal theory explaining the semantic value of these tokens. It seems philosophically uninteresting to leave such a volume of conventional postcard communication without a semantic theory. Sentences like (13) should not be seen as rare occurrences. Even if the exact tokens might be spoken infrequently, what they show is that, within the same communication channel, one can shift between what is referred by indexical with ease. The counterexamples I produced are not absurd like (10) is. They are smooth, conventional and manage to successfully communicate what time the speaker is referring to, with simple sentences. It is not hard to imagine that such inscriptions *can* occur in a widespread manner over postcard communication and therefore they should not be considered as unconventional or rare ways to communicate. Our intuitive truth value judgments towards such inscriptions must have a bearing on the semantic theory that seeks "to account for the totality of data" concerning indexical expressions (Michaelson 2013, p.521).

When my intended reader reads (13) she would intuitively understand that the expression "now" refers only to the time of reading and not to the time of inscription. If it were true that the semantic meaning of "now" still referred to the time of inscription my intended speaker would have had intuitions relevant to such a reference. A reader will make the truth value judgments concerning such instances accordingly. Such similarity in truth value judgments cannot be left outside the scope of a semantic theory whose aim is precisely to explain this data. If truth-value judgments of such common utterances are left to pragmatic explanation, it would seem that since the character shifting theory is unable to deliver empirical results one is providing an ad-hoc justification of bad predictions.

The character shifting theory therefore fails in giving a semantic account that gives us the correct truth conditions for the totality of semantic data if we consider it over postcard communication.

3.3.5 Ambiguous Expressions

There is another strategy that can explain not just postcard utterance but also answering machine and other possible departures of indexical behavior from Kaplan's theory. I will describe this strategy and then state Michaelson's reasons for dismissing it (2013). I do this because I will assess the character shifting theory on the whether or not the predictions that follow from my example commit to the strategy that Michaelson (2013) explicitly dismisses. The strategy is to explain our truth value judgments towards postcard utterances by arguing that "here" and "now" are ambiguous expressions. According to this view, indexical expressions refer to more than one object since these expressions can have more than one meaning.

Concerning the postcard utterances, the two different objects that the expressions "here"/"now" would pick out would be the location/time of production (when the speaker records his voice into the answering machine) and the location/time of tokening (during playback). If that is the case, then these will not pose a problem to Kaplan's semantic theory. In some utterances, the indexicals refer to the object in the context of production and in some utterances they refer to object in the context of playback.

That indexicals pick out different referents in various contexts is different from ambiguity. Ambiguous expressions can also pick out different referents in different contexts. Yet, these are two different phenomena. The expression "now" picks out different times depending on when it is uttered, but it has a stable meaning across all possible contexts in which is uttered. Ambiguous expressions, however, have different meanings between the two or more ways of using it.

Take for instance the word "bat" which I think is an uncontroversially ambiguous word. It has at least two meanings: one of the meanings is *a species of mammal whose feet form webbed wings* and the second meaning is *specialized equipment used in sports to hit the ball*. Assume that one is learning how to use words by grasping the meaning of those words. In the case of indexicals, if one knows the meaning of the expression "I", one can understand that in all of the following expressions, what is picked as the referent of the expression is the speaker/agent who utters the sentence:

(19) I am fine

(20) I live in New York city

(21) Jill said, "I love pizza"

In the case of ambiguous expressions, however when two different utterances use two different versions of the ambiguous word, one would require knowing the meanings of both to determine what is picked as the referent of the expression. For instance, the sentence below:

(22) Bats do not sleep at night

(23) The cricket bat is made of wood

Hence, the ambiguity view de-stabilizes the stable meaning of an indexical expression. Kaplan's theory was appealing because it fixed an aspect of the meaning of indexical expressions to explain what is stable throughout every utterance of an indexical. Michaelson (2013) however, does not consider this as an option.

To know if a given expression is an indexical or ambiguous, we have to test whether there is lexical ambiguity in the expression concerned. One of the standard ways to test if a given expression is ambiguous is through the contradiction test (Sennet, 2016). In the test, an ambiguous expression would have a *non-contradictory* reading when both its versions occur in the same sentence in the same context. For instance, the following sentence:

(24) This is a bat, not a bat

Although awkward at first reading, the sentence has a non-contradictory reading if one of the occurrences of the word "bat" could refer to the mammal while the other could refer to the sporting equipment.

According to Michaelson (2013) indexicals expressions like "I", "here" and "now" also fail the ambiguity tests when they are used in pure indexical ways.

Take the following two sentences:

(25) I am Tarun but I am not Tarun.

(26) I am here but not here.

(27) I am coming now but not now

All the above instances of indexical containing sentence have a contradictory reading once we assume that the context of the utterances is fixed throughout the sentence⁴. Although the role of these tests in determining the ambiguity in the meaning of identical words is limited (Zwicky and Sadock, 1975), Michaelson (2013) agrees with our intuitions towards the contradictory tests used over indexical containing utterances and concludes that we cannot explain our truth value judgements of the answering machine utterances by appealing to the view that the indexical expressions contained in those utterances are ambiguous.

I already showed that the character shifting theory fails to give us truth conditions with respect to indexical expressions occurring on the postcard and virtual communication. If it still seeks to maintain that it gives us the correct truth value judgments, without allowing for the character rules to vary within a communication channel, then the expression concerned seem to be ambiguous between the two referents. In the post card case, the expression "now" is ambiguous between the time of the inscription and the time of the tokening.

One might respond to this by saying that the meta-character governing indexical usage still does not vary from one communication channel to another, and since the context invariant aspect of indexical meaning is this meta-character, the claim that indexical expressions are ambiguous in their meaning does not stand.

However, this context invariance of meta-character does not save the expressions in the cases I produced from ambiguity. The referent of these expressions still varies within a communication channel. Ambiguous expressions vary in meaning and therefore what they pick out as referents also vary. Therefore, if two occurrences of the same expression pick out different objects it seems to have an ambiguous reading. In fact, Michaelson (2013) himself agrees to this when he says that:

the problematic cases, such as the answering machine paradox, that have been pointed out in the literature, and which have been taken to tell against the indexicals being ambiguous, all depend on shifting reference within a single context. Character shifting theory seeks to prohibit this by restricting what feature of the referent is fixed in every context [type]. (Michaelson 2013b, p. 530).

4. In the second case, there is a non-indexical reading of the expression "here", such as when using the expression demonstratively to point to two different areas of a map. However, we are concerned here only with indexical uses.

Although there is a shift with regards to the context, within a communication channel the context in which the indexical is evaluated is still fixed and therefore there cannot be an ambiguous reading of the expression that occurs on the same communication channel. This is how the character shifting theory avoids ambiguity - within a communication channel the reference of the indexical expression is fixed.

However, my counterexamples in postcard communication cases show exactly the contrary. The examples if considered in the semantic set-up of the character shifting theory makes indexical expressions vulnerable to the notion of ambiguity since they can be referring to different objects. We either have to give up the idea that the indexical reference within a communication channel is fixed, or concede that indexical expression "now", for instance, is ambiguous between the time of inscription and the time of tokening – an explanation that Michaelson (2013) explicitly denies, thus leaving no way in which the character shifting theorist can provide an adequate semantic account of indexicals on postcard communication.

3.4 Failure in conventionalizing certain communication channels

In this section, I not only show that the character shifting theory fails to adequately account for a significant amount of semantic data in certain communication but more importantly, I show that for certain communication channels the character shifting theorist cannot argue for a convention to develop respect to which a single character can be fixed.

This is because, depending on what the speaker seeks to communicate, there will be multiple contexts that the indexical expressions can be evaluated at, without those instances seeming absurd or without decreasing “one’s chance of conveying” (Michaelson 2013, p.530). What this means is that there will not be a coordination problem, respect to which a convention arises where the speaker has an incentive to choose one way using the indexical expression in that communication. In my examples of these communication types, multiple uses of using an indexical will be non-problematic and their reference will be obvious to the speaker. This is because these communication channels are structurally built to facilitate communication in a way such that indexical containing sentences can be evaluated at two different contexts, with both of them being equally successful in conveying what the speaker intends to convey. In both of these uses, the reference of indexical will be “obvious to all the relevant agents.” (Michaelson 2013, p.526) Therefore a context type, with a fixed rule, would not be established for this medium of communication.

In fact, if this is true, then the character shifting theory will fail if it takes any one of these multiple ways of referring to be the conventional one. This is because it will then assign incorrect truth values to the others, leaving a significant amount of semantic data – truth value judgments – unexplained by the character shifting theory. One of the reasons motivating the character shifting theory was the accuracy in predicting the totality of indexical containing semantic data. If it is shown that a context-type over virtual communication cannot be established, it fails on that promise.

I will first show this using the example of video will, which Michaelson (2013) provides us with, and then using the example of internet communication. I will then consider two possible ways that the character shifting theorist can defend against my conclusions – first, to argue that within internet and video communication there can be multiple context types and second, to argue that internet and video communication utterances need not be accounted for by the character shifting theory.

3.4.1 Establishing conventions for new communication channels

To the claim that it seems unlikely that there was once a time when indexical uses over recording machines were not constrained by a convention that restricted what counted as referents of these expressions, Michaelson (2013, p. 529) responds that such a claim "speaks more to the limitations of our imagination rather than to any fact of the matter". According to him, a new communication channel first offers multiple ways in which an indexical can be used, however,

"once a regularity in use arises, speakers will have every incentive to follow this pattern when using indexicals on this sort of recording device; deviation from such conventions will substantially decrease one's chance of conveying a particular object-, place-, or time-dependent proposition by means of an indexical-containing sentence-form." (Michaelson 2013b, p. 526).

He elucidates this claim by giving an example of video wills. Consider the following two utterances that a video will begins with:

(28) Today I met with my lawyer to go over all the details before making this video.

(29) Today you all received a phone call telling you to come to my lawyer's office.

Keeping in mind that both of the above utterances occur on the same communication channel, when the indexical "today" is uttered in (28) it refers to the day when the will was

being made and while in the utterance (29) it refers to the day when the will is being played to its audience. To Michaelson (2013, p. 527), this example is an evidence "that a singular convention for using 'today' on video wills has yet to emerge". Eventually, one of these uses of "today" is predicted to become the dominant use on video wills, and a new type of context and an accompanying character-rule is then conventionally established. This also means that the incorrect use, which will be one of the two uses, will fail to enable successful communication once a convention is fixed. Such an incorrect use would produce truth value judgments that are unintuitive to competent users.

This is an unfounded conclusion. According to Michaelson's (2013) own argument, a convention arises over the communication channel in response to a coordination problem like the one we described while talking about the postcard utterances. If one of the ways of using the indexical expression "now" was not obvious to the speaker or listener, there would be a problem to which competent speakers might then be incentivized to choose one of the two uses as the standard one. However, his own example departs from this explanation. In both (28) and (29), it is obvious what the referent of the relevant indexical expression is and there is therefore no motivation for the convention to ever arise.

While it is even possible to imagine that a general convention can arise with respect to communication channels such as recording devices, this process would not be plausible for certain communication technologies. This is due to a crucial difference between recording devices/postcards and devices such as video will. In the case of former, the channels are structurally built to be used in a way that, to say the least, discourages real-time face to face communication. The postcard is intended to be a channel of communication where the speaker records his utterances for future tokening. The same is the case with recording machines. However, in the case of a video communication technology, the channel is used (and built) for both in real-time face to face communication *and* for deferred communication. That at some point in future would one use overpower the other would have to be demonstrated by, like Michaelson (2013) argues, through a coordination problem that we do not see in this example. Competent speakers use video communication for both kinds of communication and hence the indexical utterances occurring during these conversations will always shift easily, depending on what the speaker intends to convey, between the context of production (while live communication) and the context of tokening (deferred communication).

Michaelson (2013) could argue that within video communication, video will is a context-type of its own. This would mean that if we cannot assign a single fixed rule for indexical reference over video communication, we will have one for video will communication. This would make no difference to my objection since even if we accept that there are multiple context-types within one medium of communication there would be no coordination problem against which a single convention will develop around any specific communication within video communication. The nature of video communication is such that it allows for both live and deferred communication in all kinds of its use and therefore offers no problem in a way that Michaelson (2013) necessitates for a convention to arise.

3.4.2 Internet communication and the character shifting theory

In virtual or internet communication, this complicates further. Not only does this communication allow for live and deferred communication, it also is built in a manner that allows its users to use the indexical “here” to refer to two different kinds of location, without any of the two uses failing to communicate successfully.

Take, again, the famous indexical containing sentences:

(7) I am here now

(8) I am not here now

Imagine that I set (7) as my *status* on a web communication application (such as Skype, Whatsapp, etc.). Then, I call my friend who lives in a city that is far away from mine. I invite my friend to come over to the application, say Skype, for a web chat. My friend obliges and we begin to chat using the application. During the course of the chat, my *status*, which is (8), remains and it is visible to my friend beside the chat box over which we are talking. In the conversation, my friend asks me whether I am now in the city of Tartu. To this question, I reply saying

(30) Yes, I am here now

This would be similar to the (7). When tokened, the referent of the expression "here" in (7) is the location of the agent (me) over Skype, while in (30) the location refers to me being in the city of Tartu. Both (7) and (8) occur in the same communication channel since while I am in conversation with my friend, the utterance (7) remains on Skype and is arguably tokened anytime my audience (friend) wishes to read it.

According to Michaelson (2013), a convention should arise with respect to our virtual communication due to one of the ways of indexical use creating a coordination problem. This convention is then formalized into the character shifting theory as a character rule that determines the referent of indexical expression. Suppose that we assume that the character rule that we must formalize into our semantic theory with respect to the indexical “here” is the physical location of the speaker and not his virtual location over the internet application. This would predict that occurrences of “here” that do not refer to the standard location, which is the physical location, should be false. However, this is not the case. In several utterances, the expression will refer to the so-called non-standard context and will be seen as true by competent users of the language without posing any problem. Clearly, therefore, it fails to successfully give truth conditions for all such sentences.

Against this claim, one can say that the utterance of (7) is evaluated with respect to a different context type by virtue of being on the text box where a status is updated and hence it occurs in a different communication channel than the utterances that are tokened in the actual chat box where the conversation occurs. This response would, therefore, posit multiple communication channels within internet communication. There is one obvious problem with this: Internet communication applications regularly have multiple communication spaces within themselves. Within a single application, there are several chat boxes where one can inscribe utterances that are semantic in the sense that they evoke truth value judgments from competent users of the language. For instance, on Facebook one can communicate using the following communication spaces:

- a) the chat box messenger
- b) comment boxes under other posts
- c) wall post boxes on other profile
- d) status update box
- e) in-gaming communication messenger

This is merely a list of possible communication channels within one internet communication application. There are many other such applications with each having multiples spaces where users communicate. If we assigned a standard character rule for every communication within each application there will be dozens of communication channels we have to assign character rules for. This seems like an ad-hoc arrangement that imposes a character rule for whatever

the truth value judgments seem to agree with rather than a formalization of a certain observed convention. This complicates the semantic theory especially with regards to virtual communication. To say that each of these is a different context-type whose character rules are fixed (or are in the process of being fixed) seems to be a proposal that lacks empirical evidence.

However, let us grant to Michaelson (2013) that this is possible. There could be a potentially infinite set of context-types with each a fixed reference rule that gives us the correct predictions. Like Austin talks of linguistic conventions:

[...] but even if there were something like ten thousand uses of language, surely we could list them all in time. This, after all, is no larger than the number of species of beetle that entomologists have taken the pains to list (Austin 1979: 234)

Even if that is true, there are separate context types where competent users seem to use “here” to singularly refer to one particular location and not the other, I show in the following paragraph, it will still fail to give the correct truth conditions for indexical containing sentences for the same chat box (and therefore, for the same context type) for which we have assigned a character rule. This is again because the nature of the virtual medium is such that no coordination problem arises and therefore no convention to which a fixed rule can be established even if within virtual communication the utterances are carried out within a some pre-determined sub-medium. I will show this using an example below.

This variation between what is referred to can occur even while the conversation is occurring in the same chat box. For instance, on a different day than the one in my previous example, I receive:

(31) Are you here?

as a chat message from my friend on my Skype application. I would rightfully assume the referent of the utterance “here” in this case to be my location over Skype if I met my friend a few hours ago and I am certain that he knew I still was in the same city. On the other hand, if I received (31) from another friend who is waiting for me at a bus stop while I am on my way to the city where he is at, I will assume that the referent of the utterance “here” is the city where I am traveling to. Importantly, both these utterances are tokened on the same chat application and there is nothing that a Kaplanian context for pure indexical can contain that offers itself as a parameter for determining that referent without appealing to a wider context that presumably includes the speaker intention. “Here” on such applications does not

automatically fix one and only one location as the referent. There are two different locations that it can refer to, depending on either intention or wider contextual parameters, and this often results in different truth conditions. The success in communicating within any chat box on internet or virtual communication does not depend “on everyone repeatedly choosing the same way” (Michaelson 2013, p.) The conventionalist project of giving a singular reference rule for “here” with this medium of communication seems very unlikely, if not impossible.

Further, a semantic theory should be able to predict such a significant amount of linguistic data. One of the proposed advantages the character shifting theory has over the accounts in the conventionalist tradition was its ability to accurately account for a wider amount of semantic data – truth value judgments of competent speakers towards instances of (7) and (8). Its failure to account for virtual communication utterances of (7) and (8) show that it fails in this effort. It is difficult to understand why such common and significant communication would not yet have a conventional rule for its utterances – if at all communication channel do get such rules in the first place.

The reason I have singled out virtual communication for my argument is to be explained. I said earlier that virtual communication is structurally built to handle both live and deferred communication and also to refer to both physical and virtual locations. A similar arrangement can be made for other communication devices too. For instance, notes or even answering machines can be used for live communication even though they are used mainly for deferred communication. If I provided counterexamples using these communication devices, it would be easy for the character shifting theorist to respond by appealing to the scarcity of such semantic tokens. Since devices such as answering machines are arguably used for mainly deferred communication, using them for live communication could be explained away as rare occurrences that need to be tackled by a semantic theory. However, internet communication is not similar to these channels. In the virtual communication, we always seem to use the expression here to refer to both our location on the virtual application and our physical location before the device. This is a widespread occurrence. What I have shown is that even if the character shifting theorist claims that the communication channel of virtual communication is not formalized into a semantic theory yet, there is no coordination problem occurring on this medium where a convention will arise which the theory will then fix a single character rule for that correctly predicts the truth value judgments.

3.4.3 Virtual utterances as non-semantic tokens

The conclusion of the previous section is an important observation since character shifting theory does not account for indexical expressions on communication channel whose character rules have not been conventionalised yet. Video wills are still rare cases when compared to internet communication. However, indexical containing utterances are very common on the internet.

One can argue that virtual utterances need not be accounted for by the character shifting theory in the first place. Does a semantic theory need to account for communication that is on internet or video wills? It is much easier, for instance, to leave all such utterances outside the scope of a semantic theory. This way we accept the character shifting theory and its advantages in explaining indexical expressions over answering machine and face-to-face communication and do not have to bother about modifying it. Even postcard utterances could be treated in the same manner.

There is a view (Stevens 2009) that even answering machine utterances need not be seen as semantic data even though they are well-formed tokens of language. In this view, Kaplan's theory applies only to face-to-face human utterances. When the same utterances are played through a device, they are not semantic in nature and therefore outside the scope of Kaplan's semantic theory. The obvious advantage of this theory is that it keeps Kaplan's theory intact, making correct predictions in the case of truth and falsity of face-to-face utterances without the threat from answering machine paradox.

However, despite this advantage, both Michaelson (2013) and I do not take this as an option. This is because the answering machine utterances, even though not occurring in face-to-face communication, do communicate something effectively and successfully. They do this in the manner identical to regular utterances that a semantic theory accounts for. Competent users of language have truth value judgments regarding such utterances. Michaelson (2013) uses this argument to establish why we need a semantic theory that gives an account of these truth value judgments with regards to answering machine communication. The same argument applies to even internet communication. We need a semantic theory that gives predict the correct truth values for such utterances just as we need one for utterances made face-to-face. To treat them as outside the scope of a semantic theory seems to leave a significant amount of utterances without a successful semantic account or explanation.

4. Conclusion

The aim of the thesis was to show that the character shifting theory fails to adequately account for truth value judgments of competent users with regards to utterances containing pure indexicals. To do this, I first explained the background in which this theory arose. It aims in giving an intention-free semantic account of indexicals with regards to a wide range of data, including postcard utterances and others. It does so by allowing character rules to vary with respect to the medium of communication or communication channel.

I show that it incorrectly predicts truth-values concerning uses of pure indexicals over postcards. I also show that for certain communication channels widely used, even if we allow that the conventional rule has not yet been established, I show that there is no coordination problem respect to which such a convention will ever be established. Therefore, indexical uses on such communication channels will arguably always be ambiguous between two referents. Again, this leaves a significant amount of semantic data outside the theory – something that the character shifting theory explicitly wishes to avoid.

The answering machine paradox raised an interesting debate between philosophers of both the conventionalist and intentionalist approaches. The character shifting theory is the latest in proposals from the conventionalist approach that sought to provide a semantic account of pure indexicals without discarding the most crucial aspects of Kaplanian theory, and without appealing to speaker's intentions or wider contextual parameters in fixing the referents. Since I show that the character shifting theory fails in this regard, the conventionalist might either return with an alternative account or resort to accepting intentions or another parameter in their semantic framework.

Abstract

Kaplan's (1989) theory provides rules, called characters, which determine the reference of indexicals "I", "here" and "now". Speaker intentions do not play a role in this and indexical reference is a matter of convention. Answering machines have posed a threat to this semantic account of indexicals. Several accounts have since been offered to resolve this while retaining the intention-free aspect of the theory. One recent response is Michaelson's (2013) character shifting theory where the character of an indexical expression is sensitive to the medium of communication. The theory assigns a fixed rule for each indexical which changes depending on the communication channel while remaining fixed for within the channel. This rule is a formalization of convention that we arguably observe with respect to indexical usage in this channel. My thesis shows that his theory fails in giving us the correct truth conditions of indexicals when it comes to postcard communication. I also show that a fixed rule cannot be assigned to certain kinds of communication channels, such as internet and video communication because of the manner in which they function. I construct plausible examples to show this and consider possible ways Michaelson (2013) can defend his theory against these examples.

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