

# ON THE DISTINCTIVENESS OF INDEXICAL OPACITY

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# ABSTRACT

## On the Distinctiveness of Indexical Opacity

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Indexicals are linguistic expressions whose referents vary according to the context of their utterance. Common examples include words such as ‘now,’ ‘here,’ and ‘that.’ However, my attention is primarily directed toward the word ‘I’ in this paper. Many contemporary discussions regarding indexicals are centered on their interactions with *opaque contexts* – statements in which the substitution of co-referential terms can bring about a change in their truth values. In particular, there is a question as to whether substitution failures involving indexicals (instances of indexical opacity) have any features that distinguish them from substitution failures involving names, such as ‘Clark Kent’ and ‘Superman.’ Those who answer this question positively are said to endorse *essential indexicality*, whereas those who take the opposing position deny this. In this paper, I explore both sides of this debate by examining the pro-essential indexicality arguments offered by John Perry (1979) and a particular counterargument proposed by Herman Cappelen and Josh Dever (2013). My primary objective is to evaluate and respond to this counterargument in order to defend essential indexicality on the grounds of *motivational distinctiveness*.

## **DEDICATION**

*To my mother, father, sister, grandparents, faculty advisor, and instructors who supported me throughout the research process.*

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## INTRODUCTION

It is a widely held and intuitive notion that the contents of our beliefs represent the way the world is. Oftentimes, such representations are *perspectival*; that is, they represent features of the world *as they are related* to a particular subject that exists at a particular place and time. When it comes to describing these perspectival belief contents using language, it is natural to utter such sentences as the following. “*I* am hungry”; “the TAMU philosophy department is *here*”; “the Federer v. Nadal tennis match is starting *now*.” The italicized elements of the foregoing sentences are called *indexicals* – linguistic expressions whose referents vary according to the context in which they are uttered.

It is worth noting that a rather diverse set of terms fall into the ‘indexical’ category. A comprehensive list is provided by David Kaplan in his 1989 paper ‘Demonstratives’: “the pronouns ‘I’, ‘my’, ‘you’, ‘he’, ‘his’, ‘she’, ‘it’, the demonstrative pronouns ‘that’, ‘this’, the adverbs ‘here’, ‘now’, ‘tomorrow’, ‘yesterday’, the adjectives ‘actual’, ‘present’, and others” (Kaplan 489). My attention is primarily directed toward the word ‘*I*’ in this paper.

The literature devoted to understanding indexicals is rich and is motivated by various reasons. Some philosophers are interested in the semantic value of these expressions and how they fit into theories of linguistic meaning. Others are focused on the roles that indexicals play in formal logic. Furthermore, many are compelled by the view that indexicals tell us something important about the nature of certain philosophical subjects, including “belief, self-knowledge, first-person perspective, consciousness” (Braun) among others.

Of the numerous questions that arise in this literature, perhaps one of the most important is in regards to whether indexicality is a philosophically *deep* or *shallow* phenomenon. We can



put this another way: do perspectival belief contents represent the world in a way that is not available to non-perspectival belief contents? Those who answer this question positively are said to endorse *essential indexicality*, whereas those who answer negatively deny this phenomenon.

In this paper, I explore both sides of this debate. My primary objective is to defend essential indexicality on the grounds of *motivational distinctiveness* by evaluating and responding to a particular argument presented by Herman Cappelen and Josh Dever. To this end, my goals are as follows.

(I) To exposit the main subject matter we will be discussing, I will first provide an overview of the framework for conceptualizing linguistic meaning proposed by Gottlob Frege. (II) Next, I will explain the notion of essential indexicality, as it is described by John Perry in ‘The Problem of the Essential Indexical,’ as well as Perry’s reasoning in defense of this phenomenon. (III) I will then offer my own comments, interpreting Perry’s description of the belief relations that are indicated by indexical utterances. (IV) Subsequently, I will describe Cappelen and Dever’s counterargument to essential indexicality and will respond by offering my evaluation of it, in light of the previous commentary made. (V) Finally, I will discuss some of the implications and applications of the conclusions drawn from this project. These goals will be addressed in chapters 1-5, respectively.

# 1. AN OVERVIEW OF THE FREGEAN FRAMEWORK

## 1.1 Overview

Before launching into the discussion on essential indexicals, it is worth taking some time to explain the framework for linguistic meaning and reference provided by the German mathematician Gottlob Frege.

## 1.2 The Problem of Substitutivity

It is perhaps most helpful to begin by looking at a classic puzzle. Consider the following sentences.

Sentence 1: Albert believes that **Clark Kent** can fly.

Sentence 2: Albert believes that **Superman** can fly.

It is clear that these sentences can have different truth values since Albert can believe something about ‘Superman’ that he does not about ‘Clark Kent’ – he might have never seen or heard the name ‘Clark Kent’ at all! However, notice that the terms ‘Clark Kent’ and ‘Superman’ are co-referential; they refer to the very same person in the world. Also notice that both of our sentences feature an *attitudinal relation*, in particular, the relation of ‘belief’ – other examples of attitudinal relations include those of ‘desire,’ ‘hope,’ ‘fear,’ etc. Let us now formulate our question: when we are dealing with statements involving attitudinal relations, how is it that co-referential terms cannot be substituted while preserving that statement’s truth value?

This has come to be known as "the problem of substitutivity" (Lycan 11). Frege responded to this problem by claiming that the words ‘Clark Kent’ and ‘Superman’ must bear a relation to distinct entities that each present the *same* referent to the believer, but in a *different* way; they are thus said to contain the referent’s “mode of presentation.” Frege calls these entities

*senses*. It is worth noting that Frege also speaks of *concepts*, which he defines as the senses that are expressed by predicates. Although Frege uses these two terms differently, I will use them interchangeably in this paper. Furthermore, there are two important points that Frege makes about concepts. (I) They are *expressed* by words. (II) They *refer* to things in the world.

However, to fully explain why the problem of substitutivity occurs, we also have to consider *sentence* meaning. To start, we know that every sentence is composed of words. From (I), we also know that every word expresses a concept. In light of this, Frege says that we can conceptualize a whole sentence as expressing something that is composed of concepts. Frege calls this entity a *thought* (this is interchangeable with the term *proposition*). Similar to concepts, propositions have referents, except the objects they refer to are *truth values*. To briefly summarize, Frege reasons that, just like words, there must be another level of content that sentences correspond to, over and above the level of reference. For sentences, this is the level of propositions.

Let us now return to our initial question: how is it that our sentences can have *different* truth values? Putting all this together, Frege answers like this. Our two sentences consist of different words ('Clark Kent' and 'Superman'), and each of these words express different concepts. From this, it follows that each of these sentences must express different propositions, since they are composed of concepts. And of course, different propositions can have different truth values.

So far, I have explained the problem of substitutivity using sentences involving attitudinal relations. In the following chapter, we will discuss some noteworthy variations of this problem.

## 2. PERRY AND THE ESSENTIAL INDEXICAL

### 2.1 The Messy Shopper

I will exposit Perry's argument by first referring to an illustration he provides:

I once followed a trail of sugar on a supermarket floor, pushing my cart down the aisle on one side of a tall counter and back the aisle on the other, seeking the shopper with the torn sack to tell him he was making a mess. With each trip around the counter, the trail became thicker. But I seemed unable to catch up. Finally it dawned on me. I was the shopper I was trying to catch. (Perry 3)

I will designate the individual described in the above scenario using the term '*Perry<sub>s</sub>*'. At the outset of this scenario, if Perry<sub>s</sub> was asked why he was following the trail of sugar, he would be expected to utter the following.

(A) "I believe that the shopper with the torn sack of sugar is making a mess."

However, Perry<sub>s</sub>'s behavior had a notable change when he stopped following the trail and adjusted the sack of sugar. At this point, if Perry<sub>s</sub> was asked why he did so, he would be expected to utter the following.

(B) "I believe that I am the shopper with the torn sack of sugar."

(C) "I believe that I am making a mess."

In light of this, it would seem that there was a change in Perry<sub>s</sub>'s *beliefs*; it would also seem that this change carries the force of the explanation in regards to Perry<sub>s</sub>'s change in behavior. For this reason, whatever it is that Perry<sub>s</sub> comes to believe – as well as *how* he believes it – is of significance. The bulk of Perry's paper is devoted to understanding how we should construe the belief that Perry<sub>s</sub> comes to have.

There is another point to take note of here. According to Perry, the beliefs that are characterized by (B) and (C) cannot be characterized without ‘I.’ To see why, consider what happens if the ‘I’ in the underlined portion of (C) is replaced by another term that can be used to designate Perry<sub>s</sub>, such as the name “Perry<sub>s</sub>.” The resulting sentence is as follows.

(D) “I believe that Perry<sub>s</sub> is making a mess.”

If Perry<sub>s</sub> were to utter (D) in response to being asked why he adjusted the sugar sack, he would not be offering any explanation at all. This is because he can utter (D) without changing his behavior, in the circumstance that he does not believe that he is Perry<sub>s</sub>. However, in the circumstance that he *does* believe he is Perry<sub>s</sub>, a complete explanation would require that he follow (D) with:

(E) “I believe that I am Perry<sub>s</sub>.”

We see that (E) reintroduces ‘I.’ Thus, the term ‘I’ in (C), and for that matter (B), cannot be paraphrased away without sacrificing the explanation for Perry<sub>s</sub>’s change in behavior. For this reason, Perry refers to ‘I’ as an *essential* indexical. Furthermore, he refers to the beliefs characterized by sentences containing such indexicals as *locating beliefs*; Perry defines these as beliefs about “where one is, when it is, and who one is” (Perry 5). However, the essential indexical presents a number of challenges for construing what it is that Perry<sub>s</sub> comes to believe.

At this point, I want to make it clear that there are two ways of thinking about the content of belief: we can think in *de dicto* and *de re* terms. However, either way we are presented with a challenge.

## 2.2 Briefly Returning to the Problem of Substitutivity

In section 1.2, the problem of substitutivity was illustrated using sentences involving an attitudinal relation – specifically the relation of ‘belief.’ We can do the same with the following sentences from the outset of the messy shopper scenario.

Sentence 3: Perry<sub>s</sub> believes that **the shopper with the torn sack of sugar** is making a mess. **(T)**

Sentence 4: Perry<sub>s</sub> believes that **he** is making a mess. **(F)**

Once again, we see that there is a substitution failure with co-referential terms, except this time the failure involves the indexical ‘*he*.’ These sentences, along with the sentences from section 1.2, are referred to as *action contexts*. I now want to point out that there is another type of context in which the problem of substitutivity surfaces. Consider the following sentences from the conclusion of the messy shopper scenario.

Sentence 5: What Perry<sub>s</sub> comes to believe when he is prepared to utter, “I believe that *I* am making a mess” explains his change in behavior. **(T)**

Sentence 6: What Perry<sub>s</sub> comes to believe when he is prepared to utter, “I believe that **Perry<sub>s</sub>** is making a mess” explains his change in behavior. **(F)**

Notice that the above sentences do not feature attitudinal relations, but rather *explanations*. For this reason, these sentences are referred to as *explanation contexts*. However, the same principle applies: we cannot substitute the indexical ‘*I*’ in sentence 5 for ‘Perry<sub>s</sub>’ without changing the sentence’s truth value. Furthermore, since the truth values of sentences 1-6 can change following the substitution of co-referential terms, they are all said to be *opaque contexts*. In particular, sentences 3-6 are said to be instances of *indexical opacity*. More will be

said about opaque contexts later. For now, let us explore the de dicto approach to understanding the content of belief.

### 2.3 De Dicto Belief Ascription

The de dicto belief ascription is described by the doctrine of propositions, which has three main tenets. (I) We can understand a belief as a relation between a *subject* and a *proposition*. (II) As construed by this doctrine, a proposition is an abstract object that has an *absolute truth value*; it is not merely true for a certain person or at a certain time. It is worth noting that the de dicto proposition relates the concept expressed by a given word to what Perry calls an *open proposition* – a proposition that has a blank slot, which can be filled by either a concept or an object. (III) For two propositions to be identical, they must consist of the same concepts. This tenet is to account for the failure of the substitutivity of co-referential terms. It turns out that if two propositions do consist of the exact same concepts, then they will also be guaranteed to attribute the same relation to the same objects and to have the same truth value. Putting this all together, the de dicto belief ascription is a two-place predicate that relates a believer to an absolute proposition.

Our challenge becomes apparent when we examine the essentially indexical sentences contained in (B) and (C) – which are the underlined portions. The problem is that the doctrine describes propositions as having *absolute truth values*; however, these essentially indexical sentences express no such thing. What actually corresponds (to use a neutral term) to these sentences is something whose truth value varies according to the contexts in which the sentences are uttered. To see this, imagine if both Perry<sub>s</sub> and I were to utter “I am making a mess.” The truth value corresponding to my utterance would of course differ from that which corresponds to Perry<sub>s</sub>’s. Thus, this sentence fails to express a proposition of the kind described by the doctrine.

Assuming that a proposition actually is expressed by the essential indexical sentence, this proposition must contain what Perry calls a *missing conceptual ingredient*, which is the component that would enable this proposition to refer to an absolute truth value. However, if we are unable to identify such a component, then we must accept that the essential indexical sentence expresses no proposition at all. It is worth noting that we might attempt to save the de dicto ascription by claiming that “I am making a mess” expresses the proposition that <Perry<sub>s</sub> is making a mess>. Alas, Perry<sub>s</sub>’s belief in this proposition fails to explain the change in his behavior. After all, other shoppers could have believed the very same proposition, and yet we would not expect any of them to examine their carts. As in the case above, to fully explain this change, we must further take into account Perry<sub>s</sub>’s belief that *he* is making a mess, and there is no way of doing so using the de dicto belief ascription.

#### **2.4 De Re Belief Ascription**

Perry’s second attempt involves turning to the *de re belief ascription*. In contrast to the de dicto ascription, which relates a believer to an absolute proposition, the de re ascription relates a believer to what Perry describes as “a new sort of proposition, consisting of an object or sequence of objects and a conceptual ingredient” (Perry 10). We can call this a *de re proposition*. Whereas de dicto propositions relate the concept expressed by a given word to an open proposition, de re propositions relate the *referent* of a given word to an open proposition. It is important I emphasize that de re propositions, like de dicto propositions, are absolute propositions, just a different kind. Putting all this together, a de re belief can be understood as consisting of three components: (I) a believer, (II) an object, and (III) an open proposition.

In order to illustrate the distinction between de dicto and de re ascriptions, we can consider the following sentences.



(F) “Patrick believes that the dean is wise.”

(G) “Patrick believes that Frank’s neighbor is wise.”

If we construe the beliefs indicated by (F) and (G) according to the de dicto ascription, then Patrick necessarily holds two different beliefs. This is because different de dicto propositions are expressed by the underlined portions of (F) and (G) – from tenet three of the doctrine of propositions. However, using the de re ascription, we can say that the belief indicated by (F) is the same as the one indicated by (G). This is because the terms ‘the dean’ and ‘Frank’s neighbor’ are co-referential; they both refer to the same person. Thus, both (F) and (G) relate together the same components: (I) Patrick, (II) the person referred to as ‘the dean’ and ‘Frank’s neighbor,’ and (III) the open proposition that \_\_\_ is wise. We might even rephrase (F) or (G) to say:

(H) “Patrick believes *of* the person that is variously referred to as ‘the dean’ or ‘Frank’s neighbor,’ that he is wise – just in case there is a concept  $\alpha$  such that  $\alpha$  fits the person and Patrick believes that  $\alpha$  is wise.”

If we attempt to rephrase (C) in the same way, we end up with:

(I) “Perry<sub>s</sub> believes *of* the person that is variously referred to as ‘I,’ that he is making a mess – just in case there is a concept  $\alpha$  such that  $\alpha$  fits the person and Perry<sub>s</sub> believes that  $\alpha$  is making a mess.”

This ascription relates together the following components: (I) Perry<sub>s</sub>, (II) the person referred to as ‘I,’ and (III) \_\_\_ is making a mess. However, here we run into a similar challenge as before, in that another shopper can believe the very same de re proposition – which in this case relates (II) and (III) – without us expecting any change in their behavior. Thus, the de re

belief ascription does not solve our problem either, but we are not done with it quite yet. In the next section, we will look at a modification of this approach.

## 2.5 Relativized Propositions

Consider the following:

Now consider "I am making a mess". Rather than thinking of this as partially identifying an absolutely true proposition, with the "I" showing the place of the missing conceptual ingredient, why not think of it as completely identifying a new-fangled proposition, that is true or false only *at a person?* (Perry 13)

Perry's proposal is that essentially indexical sentences seem to correspond to *relativized propositions*. There are two characteristics of these propositions that are important to take note of. The first is that relativized propositions feature an *indexical element*, which is the component that corresponds to the essential indexical in the sentence. The second characteristic is that this element can be replaced by a certain *index*, such as a particular person, place, or time; the replacement of the indexical element by an index yields an absolute proposition, specifically a *de re* proposition. There is a terminological distinction that I want to make here. A 'relativized proposition *itself*' can be understood as a function, with an indexical element, that lacks a truth value. In contrast, a 'relativized proposition *at an index*' is a *de re* proposition, and thus has an absolute truth value.

To illustrate all this, consider the relativized proposition:  $\langle y = 2x \rangle$ . This proposition is true at the coordinates (3,6), among many others. This is to say that substituting  $x$  and  $y$  for '3' and '6' respectively, yields an *absolute proposition* that is true:  $\langle 6 = 6 \rangle$ . Similarly, the relativized proposition  $\langle I \text{ am making a mess} \rangle$  is true at the index 'Perry<sub>s</sub>,' meaning that the substitution of ' $I$ ' with 'Perry<sub>s</sub>' yields a true absolute proposition:  $\langle \text{Perry}_s \text{ is making a mess} \rangle$ . If

it just so happened that I too was making a mess, let's say in the aisle adjacent to Perry<sub>s</sub>, then this same relativized proposition would also be true at the index 'Zain Syed.'

Perry now considers the following explanation for Perry<sub>s</sub>'s change in behavior. Perhaps the indexical sentence "I believe that I am making a mess" is indicative of Perry<sub>s</sub> holding a *de re* belief whose object is a *relativized proposition*. Specifically, he considers if Perry<sub>s</sub> comes to believe *of* a relativized proposition that it is true *at certain indices*. However, this does not explain Perry<sub>s</sub>'s change in behavior either. Perry demonstrates why this is so by making a distinction between the *context of belief* and the *context of evaluation*.

All believing is done by persons at times, or so we may suppose. But the time of belief and the person doing the believing cannot be generally identified with the person and time relative to which the proposition believed is held true. You now believe that that I am making a mess was true for me, then, but you certainly don't believe it is true for you now, unless you are reading this in a supermarket. Let us call you and now the context of belief, and me and then the context of evaluation. The context of belief may be the same as the context of evaluation, but need not be. (Perry 14)

To illustrate the challenge we face, consider the following cases.

Case 1: At time  $t_1$  and place  $p_1$ , **Perry<sub>s</sub>** believes of the relativized proposition that <I am making a mess>, that it is true at the indices '**Perry<sub>s</sub>**'  **$t_1$** , and  **$p_1$** .

Case 2: At time  $t_2$  and place  $p_2$ , another shopper believes of the relativized proposition that <I am making a mess>, that it is true at the indices '**Perry<sub>s</sub>**'  **$t_1$** , and  **$p_1$** .

In each of these cases, the underlined text indicates the *context of belief*, while the bolded text indicates the *context of evaluation* (the indices at which the proposition is believed to be true). It is evident that the other shopper in case 2 can believe the exact same relativized

proposition is true at the same context of evaluation ('Perry<sub>s</sub>,' **t<sub>1</sub>**, and **p<sub>1</sub>**), and yet we would not expect any change in their behavior. This is because the other shopper can believe that that proposition is true at those indices without believing that those indices are the context of belief.

In light of this, we might suspect that the explanation for the change in Perry<sub>s</sub>'s behavior lies in the fact that the context of Perry<sub>s</sub>'s belief happens to be the *same* as the context of evaluation, as seen in case 1. Alas, this also fails. At t<sub>1</sub>, and p<sub>1</sub>, Perry<sub>s</sub> can believe of the relativized proposition that it is true of **Perry<sub>s</sub>** at **t<sub>1</sub>**, and **p<sub>1</sub>**, without believing that *now* is t<sub>1</sub>, *here* is p<sub>1</sub>, and *he* is Perry<sub>s</sub>.

## 2.6 Perry's Conclusion

So then, what is Perry's solution? Let us suppose that in the aisle adjacent to Perry<sub>s</sub>, I also am making a mess, and after some time, both of us correct our behavior. At the conclusion of this scenario, both Perry<sub>s</sub> and I are prepared to utter "I am making a mess," and we correct the sacks in our carts. The fact that both of us take similar action is indicative of us having some commonality in regards to our beliefs. But what exactly is this commonality? Certainly, we do not believe the same absolute proposition (neither *de re* nor *de dicto*); Perry<sub>s</sub> comes to believe that <Perry<sub>s</sub> is making a mess>, while I come to believe that <Zain Syed is making a mess>.

What Perry proposes is that there is a special kind of belief relation that exists between a subject and a *relativized proposition*; he refers to this relation as a *belief state*. As far as the commonality goes between Perry<sub>s</sub> and I, Perry claims that we both come to be involved in the *same* belief state. Specifically, we both come to believe the relativized proposition that <I am making a mess>.

However, while this explains the *similarity* of our actions, it does not explain our actions *themselves*. We still need to know why we changed our behaviors in the first place. In regards to this, Perry says the following.

Consider a believer whose belief states are characterized by a structure of sentences with indexicals or relativized propositions (those marked "true" in a very comprehensive exam, if we are dealing with an articulate sincere adult). This structure, together with the context of belief-the time and identity of the speaker-will yield a structure of de re propositions. The sequence of objects will consist of the values which the indexicals take in the context. The open propositions will be those yielded by the relativized proposition when shorn of its indexical elements. These are what the person believes, in virtue of being in the states he is in, when and where he is in them. (Perry 19)

Let us begin dissecting this passage by looking at the relation between Perry<sub>s</sub> and the relativized proposition that <*I* am making a mess>. It is important to note of belief states in general that they are said to contain the *character* of belief, meaning that they determine *how* an absolute (specifically de re) proposition is believed. To see how this works, recall that a relativized proposition can be understood as a de re proposition, except with an indexical element in place of an object. The believer in a belief state thus believes something *of the indexical element*. In the case of the particular belief state we are considering, the indexical element corresponds to the indexical '*I*.' In light of this, Perry<sub>s</sub> believes something of *himself* – namely that he is making a mess. Moreover, the belief state has a context of belief, which consists of Perry<sub>s</sub> at whatever time he bears this relation to the relativized proposition in question – let's say t<sub>1</sub> and p<sub>1</sub>.

I want to emphasize here that '*himself*' does not correspond to an object; if it did, then we would be dealing with a de re belief, as opposed to a belief state. Rather, '*himself*' corresponds to a place holder that can only be replaced by the *person* that Perry<sub>s</sub> identifies with, at t<sub>1</sub> and p<sub>1</sub>.

In light of all this, we can see how the belief state, along with its context of belief, yields a de re proposition: the particular object that replaces the indexical element of the relativized proposition involved in the belief state is the *person* that Perry<sub>s</sub> identifies with at t<sub>1</sub> and p<sub>1</sub>. Thus, the de re proposition that Perry<sub>s</sub> comes to believe is that <Perry<sub>s</sub> is making a mess>. The absolute proposition believed is also referred to as the *content of belief*. To summarize, Perry construes the belief relations that *explain* Perry<sub>s</sub>'s change in behavior as follows.

**Belief state:** Perry<sub>s</sub> believes of *himself* that he is making a mess (the *character* of belief)

**De re belief:** Perry<sub>s</sub> believes of Perry<sub>s</sub> that he is making a mess (the *content* of belief)

### 3. ANALYZING THE IDENTIFICATION RELATION

#### 3.1 An Important Distinction

So far, in our discussion of the messy shopper scenario, we have been speaking about a certain person, Perry<sub>s</sub>, who apparently has two notable capacities: he can hold beliefs and perform actions. We construed a *belief* as an attitudinal relation between Perry<sub>s</sub> and an absolute (specifically de re) proposition; similarly, we construed a *belief state* as an attitudinal relation between Perry<sub>s</sub> and a relativized proposition. Furthermore, it was assumed at the outset that *these belief relations* have a significant connection to *Perry<sub>s</sub>'s actions* (at least his actions in this scenario), such that the latter can be *explained by* the former. However, to explore this connection further, it is worth disentangling all the things we have so far been calling 'Perry<sub>s</sub>.'

First, there is something that is bearing the aforementioned belief relations. Secondly, there is something through which behaviors are carried out – the behaviors of interest are those of pushing a cart containing a torn sack of sugar, making a mess while doing so, correcting the sack, and making utterances. I will refer to these particular entities as 'subject<sub>p</sub>' and 'body<sub>p</sub>,' respectively; also, I use the term 'subject' for the first of these since this is a neutral way of talking about whatever it is that is doing the believing.

With this distinction being made, I now want to revisit the central question of Perry's paper.

#### 3.2 Reconstructing the Messy Shopper

Let us look at what exactly subject<sub>p</sub> came to believe at the time of body<sub>p</sub>'s change in behavior. To this end, it would be helpful to also look at the utterances that preceded (C), and what belief relations were indicated by them.

At the outset, body<sub>p</sub> would utter:

(A) “I believe that the shopper with the torn sack of sugar is making a mess.”

**I. De re belief indicated:** subject<sub>p</sub> believes of some body, that it is the body interacting with a torn sack of sugar.

**II. De re belief indicated:** subject<sub>p</sub> believes of the body interacting with a torn sack of sugar, that it is making a mess.

After changing its behavior, body<sub>p</sub> would utter:

(B) “I believe that I am the shopper with the torn sack of sugar.”

**III. Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with body<sub>p</sub>.

**IV. De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is identical with body<sub>p</sub>.

**V. De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is the body interacting with a torn sack of sugar.

The above belief relations deserve some commentary. First of all, I want to reiterate here that ‘*itself*’ in (III) does not correspond to an object, but rather to a placeholder that can only be replaced by objects that subject<sub>p</sub> *identifies with*, at the time and place of the belief relation. The object identified with in this particular scenario is body<sub>p</sub>. Furthermore, this identification relation is construed by (III). (IV) is yielded once the object that is identified with replaces the placeholder in (III). Alternatively, we might construe the belief relations indicated by (B) in an *abbreviated* form.

**VI.\* Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is the body interacting with a torn sack of sugar.



**V.\* De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is the body interacting with a torn sack of sugar.

Notice that either way, (B) is indicative of a belief state that yields a de re belief. We can take a similar approach to construing the belief relations indicated by (C).

(C) “I believe that I am making a mess.”

**III. Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with body<sub>p</sub>.

**IV. De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is identical with body<sub>p</sub>.

**VII. De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is making a mess.

The beliefs that are indicated by (C) can be abbreviated as follows.

**VIII.\* Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is making a mess.

**VII.\* De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is making a mess.

The goal of Perry’s paper was to explain body<sub>p</sub>’s change in behavior, which he proposed we can achieve by examining what subject<sub>p</sub> comes to believe at the time of the change. Specifically, we now know that the belief relations of (III), (IV), and (VII) – or, alternatively, (VIII\*) and (VII\*) – are what carry the explanatory force. We can now formulate the explanation sentences from section 2.2 (sentences 5 and 6) in more precise terms.

Sentence 7: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that *I* am making a mess” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 8: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **body<sub>p</sub>** is making a mess” explains body<sub>p</sub>’s change in behavior. **(F)**

I now want to draw attention to an important point: the object, body<sub>p</sub>, fulfills two distinct roles in this scenario. First, it is the object that is *changing its behavior*. Secondly, it is the object that subject<sub>p</sub> *identifies with*. In light of all that has been said so far, it would seem that in order

for subject<sub>p</sub>'s belief relations to provide an explanation for body<sub>p</sub>'s change in behavior, one of these relations must be an identificatory one – with body<sub>p</sub>. This is to say that it appears as though an object's behavior can be explained by a subject's belief relations, if and only if that subject also identifies with that particular object.

Likewise, it would seem that the failure for '*I*' to be substituted can be attributed to the fact that the belief relations indicated by body<sub>p</sub>'s utterance that "I believe that **body<sub>p</sub>** is making a mess" (in sentence 8) do not include any kind of identificatory belief with the object whose behavior is being explained; the only belief relation indicated here is a de re belief.

However, some doubt is cast upon this view in light of the fact that we can imagine a case where body<sub>p</sub>'s change in behavior is explained by belief relations in which subject<sub>p</sub> identifies with an object *different from* body<sub>p</sub>. Let us look at this more closely.

### 3.3 Different Objects

Consider the following scenario.

I am playing a video game. On screen, there are four characters that each have a unique key, although which key each character has is unknown to the players. Behind the characters are four doors, each one with a unique lock that corresponds to a certain key held by one of the characters. The objective of the game is to work as a team with the other players to unlock all the doors within the time limit – but there is catch. One of the characters is *curse*d, which character this is also remains unknown to the players. The curse causes the keys held by each character to be randomly shuffled amongst each other every five seconds. This means that even if one player has identified the door that corresponds to their character, they have to start over if their teammates don't identify their doors before the five-second period elapses.

However, there is also a saving grace. Once during every five second period, one of the four players can press a certain sequence of buttons that will dispel the curse, if it is their character that is afflicted. Before the game began, I was made aware of these rules. Thus, at the outset, I believed that the character with the curse is shuffling the keys. Three five-second periods go by in which each of my teammates try dispelling the curse, but to no avail. Finally, it occurs to me that *I am the character with the curse*. I quickly press the sequence of buttons and allow my team to unlock all of the doors before the timer expires.

As in the case of the last scenario, there are two entities at play in the one above, which I will designate using the same terms I have been using ('subject<sub>p</sub>' and 'body<sub>p</sub>'). However, there is one more entity of interest in this scenario, a virtual object controlled by body<sub>p</sub>, which I will refer to as 'character<sub>p</sub>.'

At the outset of the scenario, body<sub>p</sub> is prepared to utter:

(J) "I believe that the character with the curse is shuffling the keys."

Body<sub>p</sub>'s behavior had a notable change when it pressed the specific sequences of buttons to stop the shuffling. At this point, if body<sub>p</sub> was asked why it did so, it would be expected to utter the following.

(K) "I believe that I am the character with the curse."

(L) "I believe that I am shuffling the keys."

On the surface, it does not seem that this situation is much different from the messy shopper scenario. However, when we closely examine the belief relations that are indicated by (K) and (L), the difference becomes more apparent.

(J) "I believe that the character with the curse is shuffling the keys."

**IX. De re belief indicated:** subject<sub>p</sub> believes of some character, that it is the character with the curse.

**X. De re belief indicated:** subject<sub>p</sub> believes of the character with the curse, that it is shuffling the keys.

(K) “I believe that I am the character with the curse.”

**XI. Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with character<sub>p</sub>.

**XII. De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is identical with character<sub>p</sub>.

**XIII. De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is the character with the curse.

Alternatively, the belief relations indicated by (K) can be abbreviated as follows.

**XIV.\* Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is the character with the curse.

**XIII.\* De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is the character with the curse.

Now let us look at the final utterance.

(L) “I believe that I am shuffling the keys.”

**XI. Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with character<sub>p</sub>.

**XII. De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is identical with character<sub>p</sub>.

**XV. De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is shuffling the keys.

The belief relations indicated by (L) can also be abbreviated.

**XVI.\* Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is shuffling the keys.

**XV.\* De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is shuffling the keys.

We can now see the key difference between the messy shopper and video game scenarios. In the messy shopper scenario, the object whose behavior is being explained happens to be the object that subject<sub>p</sub> identifies with. But in the video game scenario, the object whose behavior is being *explained* (body<sub>p</sub>) is different from the object that subject<sub>p</sub> *identifies with* (character<sub>p</sub>). I now want to consider the explanation sentences for this scenario.

### 3.4 Juxtaposing Our Explanations

In section 3.2, we formulated the explanations for messy shopper scenario as follows.

Sentence 7: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that *I* am making a mess” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 8: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **body<sub>p</sub>** is making a mess” explains body<sub>p</sub>’s change in behavior. **(F)**

The explanation sentences for the video game scenario can be formulated in a similar way.

Sentence 9: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that *I* am shuffling the keys” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 10: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **character<sub>p</sub>** is shuffling the keys” explains body<sub>p</sub>’s change in behavior.

**(F)**

The major point I want to make is this. Although these two sets of sentences, as well as their truth values, mirror one another, the belief relations in our two scenarios explain the change in body<sub>p</sub>’s behavior in fundamentally *different ways*. Let us start by reconsidering the identification relations.

**(MSS) Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with **body<sub>p</sub>**.

**(VGS) Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with **character<sub>p</sub>**.

The first and second of the above belief states are how we construed subject<sub>p</sub>’s identification relations in the messy shopper and video game scenarios, respectively. Primarily, the belief contexts of these relations are entirely different; the times and places at which subject<sub>p</sub> identifies with body<sub>p</sub> and character<sub>p</sub> have little in common. Also, body<sub>p</sub> and character<sub>p</sub> are entirely different objects that are not very comparable as far as their respective properties go. This suggests that the identification relations in each of these scenarios are structurally different.

From this, it seems to follow that the *manner* in which the object is supplied to yield a de re proposition is also different in each of these cases. Below are the de re beliefs of interest.

**(MSS) De re belief indicated:** subject<sub>p</sub> believes of **body<sub>p</sub>**, that it is identical with body<sub>p</sub>.

**(VGS) De re belief indicated:** subject<sub>p</sub> believes of **character<sub>p</sub>**, that it is identical with character<sub>p</sub>.

Finally, if the identification relation in each of these scenarios is structurally *different*, then it is natural to believe that each one explains the behavior of the *same object* (body<sub>p</sub>) in *different ways*.

So far, we have seen the case for essential indexicality provided by Perry, as well as how we might construe indexical belief relations. At this point, however, I want to discuss a counterargument to the position that indexicals are necessary in formulating explanations for certain behaviors.

## 4. THE INESSENTIAL INDEXICAL: AN OPPOSING VIEW

### 4.1 The Inessential Indexical

The position that was outlined in chapter 2 is well received by many philosophers. However, there are those who remain unconvinced of the notion that there is anything distinct of the explanatory roles fulfilled by indexical sentences and beliefs. In this chapter, I will focus specifically on the views proposed by Cappelen and Dever in response to Perry's points.

I want to make it clear here that they do not deny the existence of indexicals; that would be too extreme. In fact, they acknowledge that the beliefs indicated by indexical sentences can provide explanations for changes in behavior. What they *do* deny is that indexicality is *essential* in explaining such changes.

Of the rebuttals that Cappelen and Dever provide to essential indexicality, I will focus specifically on their rejection of the distinctiveness of indexical interactions with opaque contexts.

### 4.2 Is There Anything Distinctive of How Indexicals Interact with Opaque Contexts?

Much of Cappelen and Dever's argument is centered on *generic opacity*. They define this as the principle that "co-referential referring expressions cannot be substituted *salva veritate* in action-explanation contexts." (Cappelen and Dever 33) Instances of generic opacity can be understood as instances of the problem of substitutivity, as discussed in sections 1.2 and 2.2. At this point, it is also important to bring attention to *indexical opacity*, for which Cappelen and Dever give the following definition: "there's a set of indexicals, I-SET, that cannot be substituted *salva veritate* in action-explanation contexts by any other expressions." (Cappelen and Dever 33) Instances of indexical opacity can be understood as instances of generic opacity, except with



indexicals instead of names; it might be helpful to refer back to section 2.2 to see some examples.

Now recall that, in section 1.2, we discussed how Frege attempted to explain why the problem of substitutivity arises. He did so by claiming that sentences must express a level of content over and above reference to truth values; in particular, he noted that different sentences must express different absolute propositions. To Fregeans, this is sufficient in explaining why sentences containing co-referential terms can have different truth values. However, proponents of the essential indexicality argument make two notable points.

(I) It would seem that a *special kind of problem* arises when it comes to substitution failures involving indexicals (instances of indexical opacity). (II) Consequently, it would also seem that this problem requires a *special explanation* – distinct from the one Frege originally provided. It is remarked that these special cases cannot sufficiently be explained by saying that essentially indexical sentences express absolute propositions, since the truth values of such sentences change depending on the context of utterance. Cappelen and Dever note that there are two major claims made in support of indexical distinctiveness that are inspired by (I) and (II), respectively.

The first of these claims is referred to as *motivational distinctiveness*, which holds that “there are reasons for thinking that indexicals interact with opaque contexts in ways that are unique to indexicals, which can’t be replicated for non-indexical expressions” (Cappelen and Dever 58). To reiterate, on this view, substitution failures involving indexicals present a distinctive kind of opacity, such that the failure of ‘*I*’ to be substituted is different from the failure of a name like ‘Superman’ to be substituted. Put another way, *there is something that distinguishes cases of indexical opacity from cases of generic opacity*. From this, proponents of

essential indexicality would argue that indexicals appear to be in possession of distinctive features.

The second claim is what Cappelen and Dever call *Fregean diagnostic distinctiveness*, which holds that “within a Fregean framework, the explanation/theoretical account of opacity for names can’t be extended to indexicals” (Cappelen and Dever 59). In other words, this view says that we need a *special explanation* in order to account for why the problem of indexical opacity arises. The fact that a special explanation is required also seems to suggest that there is something that is distinctive of indexicals.

In this paper, I am only going to focus on Cappelen and Dever’s rejection of motivational distinctiveness. Before continuing, I want to stress that they do not deny that *cases of indexical opacity* can occur; they only argue that there is nothing that distinguishes such cases from those of generic opacity. As we will see, their strategy for doing so involves examining cases like the ones discussed in previous chapters, and then providing what they call a “Frege counterpart” (Cappelen and Dever 61) which resembles the original case in all respects, except for the fact that it involves *names* instead of indexicals.

### **4.3 Responding to Motivational Distinctiveness**

The first of Cappelen and Dever’s modifications is of Perry’s messy shopper case (described in section 2.1). It reads as follows.

Pushing my cart down the aisle I was looking for CK to tell him he was making a mess. I kept passing by Superman, but couldn’t find CK. Finally, I realized, Superman was CK. I believed at the outset that CK was making a mess. And I was right. But I didn’t believe that Superman was making a mess. That seems to be something that I came to believe. And when I came to believe that, I stopped looking around and I told Superman to clean

up after himself. My change in beliefs seems to explain my change in behavior.

(Cappelen and Dever 33)

To stay consistent with what I wrote in chapter 2, I will designate the person referred to as “I” in the above scenario using the term *Perry<sub>s</sub>*. However, another person has now been introduced who is variously referred to as ‘CK’ (Clark Kent) and ‘Superman.’

At the outset of this scenario, if Perry<sub>s</sub> was asked why he was following the trail of sugar, he would be expected to utter the following.

(M) “I believe that the shopper with the torn sack of sugar is making a mess.”

Of course, this is no different from the original scenario. But in addition, Perry<sub>s</sub> will now utter:

(N) “I believe that CK is the shopper with the torn sack of sugar.”

(O) “I believe that CK is making a mess.”

Perry<sub>s</sub>’s behavior had a notable change when he stopped following the trail and told Clark Kent to adjust the sack of sugar. At this point, if Perry<sub>s</sub> was asked why he did so, he would be expected to utter the following.

(P) “I believe that Superman is the shopper with the torn sack of sugar.”

(Q) “I believe that Superman is making a mess.”

If ‘Superman’ is replaced by ‘CK’ in these sentences, we end up with (N) and (O) – and uttering these would not offer any explanation for Perry<sub>s</sub>’s change in behavior. Again, this is because Perry<sub>s</sub> can utter (N) and (O) without changing his behavior, in the circumstance that he does not believe that CK is Superman. In the circumstance that he does believe that CK is Superman, a complete explanation would require that Perry<sub>s</sub> follow (N) and (O) with:

(R) “I believe that CK is Superman.”

At this point, it is important to note the resemblance between this claim and Perry's claim in the original scenario. Perry insisted that the removal of the indexical '*I*' in the sentences indicative of Perry<sub>s</sub>'s beliefs – (B) and (C) – destroys the force of the explanation of Perry<sub>s</sub>'s change in behavior. In light of this, we considered the following sentences in section 2.2.

Sentence 5: What Perry<sub>s</sub> comes to believe when he is prepared to utter, "I believe that *I* am making a mess" explains his change in behavior. **(T)**

Sentence 6: What Perry<sub>s</sub> comes to believe when he is prepared to utter, "I believe that **Perry<sub>s</sub>** is making a mess" explains his change in behavior. **(F)**

It is evident that substituting '*I*' for 'Perry<sub>s</sub>' fails to preserve the truth value of sentence 5. But is there anything special of this failure? Cappelen and Dever answer negatively by pointing out the following sentences from their modified case.

Sentence 11: What Perry<sub>s</sub> comes to believe when he is prepared to utter, "I believe that **Superman** is making a mess" explains his change in behavior. **(T)**

Sentence 12: What Perry<sub>s</sub> comes to believe when he is prepared to utter, "I believe that **CK** is making a mess" explains his change in behavior. **(F)**

We see that substituting 'Superman' for 'CK' fails to preserve the truth value of sentence 11. Cappelen and Dever argue that the failure of '*I*' to be substituted is no different from the failure of 'Superman' to be substituted. Thus, they say both failures are instances of general opacity; there is nothing that makes the case of '*I*' much more philosophically interesting than the case of 'Superman' – at least in opaque contexts.

At this point, I want to analyze this modified scenario in consideration of the distinction discussed in chapter 3.

#### 4.4 Reconstructing the Messy Superhero

I will use the same terms that were used in chapter 3 to refer to the entities at play in the messy superhero scenario ('subject<sub>p</sub>' and 'body<sub>p</sub>').

Let us begin by looking at the belief relations indicated by utterances (M)-(Q)

(M) "I believe that the shopper with the torn sack of sugar is making a mess."

**XVII. De dicto belief indicated:** subject<sub>p</sub> believes that some body is the body interacting with a torn sack of sugar.

**XVIII. De dicto belief indicated:** subject<sub>p</sub> believes that the body interacting with a torn sack of sugar is making a mess

(N) "I believe that CK is the shopper with the torn sack of sugar."

**XIX. De dicto belief indicated:** subject<sub>p</sub> believes that CK is the body interacting with a torn sack of sugar.

(O) "I believe that CK is making a mess."

**XX. De dicto belief indicated:** subject<sub>p</sub> believes that CK is making a mess.

Now let's look at the belief relations that explain body<sub>p</sub>'s change in behavior.

(P) "I believe that Superman is the shopper with the torn sack of sugar."

**XXI. De dicto belief indicated:** subject<sub>p</sub> believes that Superman is the body interacting with a torn sack of sugar.

(Q) "I believe that Superman is making a mess."

**XXII. De dicto belief indicated:** subject<sub>p</sub> believes that Superman is making a mess.

We can now formulate the sentences from section 4.3 in more precise terms.

Sentence 13: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **Superman** is making a mess” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 14: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **CK** is making a mess” explains body<sub>p</sub>’s change in behavior. **(F)**

In chapters 1 and 2, we dealt primarily with de re belief ascriptions, rather than the de dicto ascriptions as seen above, so I want to take a moment to explain why we must use the de dicto ascription to construe these beliefs. If we used the de re ascription, there would be no difference between what subject<sub>p</sub> believed at the outset, and what it came to believe, since both ‘Clark Kent’ and ‘Superman’ refer to the same object – (recall the case of ‘the dean’ and ‘Frank’s neighbor’ in section 2.4). Now we see why substituting ‘Superman’ for ‘Clark Kent’ fails to preserve the truth value of sentence 13: the de dicto belief indicated by “I believe that **CK** is making a mess” does not explain why body<sub>p</sub> changed its behavior. Let us now compare these sentences with the *revised ones* of the messy shopper scenario, discussed in section 3.2.

Sentence 7: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **I** am making a mess” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 8: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **body<sub>p</sub>** is making a mess” explains body<sub>p</sub>’s change in behavior. **(F)**

It seems that Cappelen and Dever are successful in producing non-indexical counterparts to these sentences. Presumably, the same can be done for the explanation sentences formulated for the video game scenario in section 3.4. To do so, we must start by modifying our original scenario.

I am playing a video game. On screen, there are four characters that each have a unique key, although which key each character has is unknown to the players. Behind

the characters are four doors, each one with a unique lock that corresponds to a certain key held by one of the characters. The objective of the game is to work as a team with the other players to unlock all the doors within the time limit – but there is a catch. One of the characters is *curse*d, which character this is also remains unknown to the players. The curse causes the keys held by each character to be randomly shuffled amongst each other every five seconds. This means that even if one player has identified the door that corresponds to their character, they have to start over if their teammates don't identify their doors before the five-second period elapses. However, there is also a saving grace. Once during every five second period, one of the four players can press a certain sequence of buttons that will dispel the curse, if it is their character that is afflicted. Before the game began, I was made aware of these rules. Thus, at the outset, I believed that the character with the curse is shuffling the keys. Three five-second periods go by in which two of my teammates and myself try dispelling the curse, but to no avail. Finally, it occurs to me that the last remaining player, Dean, is the character with the curse. I quickly run up to Dean's controller to press the sequence of buttons and allow the team to unlock all the doors before the timer expires.

Let us now look at the beliefs that subject<sub>p</sub> comes to hold. At the outset of this scenario, if body<sub>p</sub> was asked why it was watching the video game (instead of acting), it would be expected to utter the following.

(M) "I believe that the character with the curse is shuffling the keys."

**XXIII. De dicto belief indicated:** subject<sub>p</sub> believes that some character is the character with the curse.

**XXIV. De dicto belief indicated:** subject<sub>p</sub> believes that the character with the curse is shuffling the keys.

In addition, body<sub>p</sub> will now utter the following.

(N) “I believe that character<sub>d</sub> is the character with the curse.”

**XXV. De dicto belief indicated:** subject<sub>p</sub> believes that character<sub>d</sub> is the character with the curse.

(O) “I believe that character<sub>d</sub> is shuffling the keys.”

**XXVI. De dicto belief indicated:** subject<sub>p</sub> believes that character<sub>d</sub> is shuffling the keys.

Body<sub>p</sub>'s behavior had a notable change when it suddenly pushed a sequence of buttons on Dean's controller. At this point, if body<sub>p</sub> was asked why it did so, it would be expected to utter the following.

(P) “I believe that Dean is the character with the curse.”

**XXVII. De dicto belief indicated:** subject<sub>p</sub> believes that Dean is the character with the curse.

(Q) “I believe that Dean is shuffling the keys.”

**XXVIII. De dicto belief indicated:** subject<sub>p</sub> believes that Dean is shuffling the keys.

These last two beliefs are said to hold the explanatory power for body<sub>p</sub>'s change in behavior.

Now we can produce the Frege counterpart sentences for this scenario.

Sentence 15: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **Dean** is shuffling the keys” explains body<sub>p</sub>'s change in behavior. **(T)**



Sentence 16: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **character<sub>a</sub>** is shuffling the keys” explains body<sub>p</sub>’s change in behavior.

(F)

We see here that there is a failure of ‘Dean’ to be substituted, just as there was a failure of ‘Superman’ to be substituted in the messy superhero case. Now we are faced with the important question: are Cappelen and Dever justified in claiming that there is nothing distinct of the failure of ‘I’ to substituted in the messy shopper and video game scenarios?

#### 4.1 Evaluating the Counterargument

For the sake of convenience, I have listed all of the explanatory sentence sets that we have discussed so far below.

The messy shopper scenario (indexical case):

Sentence 7: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **I** am making a mess” explains body<sub>p</sub>’s change in behavior. (T)

Sentence 8: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **body<sub>p</sub>** is making a mess” explains body<sub>p</sub>’s change in behavior. (F)

The video game scenario (indexical case):

Sentence 9: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **I** am shuffling the keys” explains body<sub>p</sub>’s change in behavior. (T)

Sentence 10: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **character<sub>p</sub>** is shuffling the keys” explains body<sub>p</sub>’s change in behavior.

(F)

The messy superhero scenario (non-indexical case):

Sentence 13: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **Superman** is making a mess” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 14: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **CK** is making a mess” explains body<sub>p</sub>’s change in behavior. **(F)**

The modified video game scenario (non-indexical case):

Sentence 15: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **Dean** is shuffling the keys” explains body<sub>p</sub>’s change in behavior. **(T)**

Sentence 16: What subject<sub>p</sub> comes to believe when body<sub>p</sub> is prepared to utter, “I believe that **character<sub>a</sub>** is shuffling the keys” explains body<sub>p</sub>’s change in behavior. **(F)**

Once again, our task here is to determine whether or not there is something distinct of the failure of ‘*I*’ to be substituted in the first two scenarios. In section 4.3, it was explained that Cappelen and Dever believe that there is no support for motivational distinctiveness, since non-indexical counterparts can be identified for Perry’s most notable cases. However, while it seems true that non-indexical counterparts can be produced for the sentences in the first two scenarios, this does not necessarily disprove the claim of motivational distinctiveness. It appears that there are two important features that distinguish the indexical cases from the non-indexical ones; that is to say, there are two distinct *reasons* for the substitution failures seen in the indexical cases. I will describe the first of these now.

Let us begin by looking at the belief relations indicated by the utterances in sentences 8 and 10. They are as follows.

(S) “I believe that body<sub>p</sub> is making a mess.”

**XXIX. De re belief indicated:** subject<sub>p</sub> believes of body<sub>p</sub>, that it is making a mess.

(T) “I believe that character<sub>p</sub> is shuffling the keys.”

**XXX. De re belief indicated:** subject<sub>p</sub> believes of character<sub>p</sub>, that it is making a mess.

There are four points to be made about each of the *indexical* cases.

1. The belief relations that are indicated by the utterance in the first sentence of the pair (the indexical utterance) include a belief state and de re beliefs.
2. When the indexical '*T*' is replaced by a non-indexical term, the resulting utterance is indicative of *only a de re belief* (no belief state).
3. This de re belief does not provide an explanation for the change in body<sub>p</sub>'s behavior.
4. *The inability of this de re belief to provide an explanation for the change in body<sub>p</sub>'s behavior* is what makes the second sentence false.

There are also four points to be made about each of the *non-indexical* cases.

1. The belief relation that is indicated by the utterance in the first sentence of the pair is only a de dicto belief.
2. When the non-indexical term is replaced by another non-indexical term, the resulting utterance is indicative of *only a different de dicto belief*.
3. This de dicto belief does not provide an explanation for the change in body<sub>p</sub>'s behavior.
4. *The inability of this de dicto belief to provide an explanation for the change in body<sub>p</sub>'s behavior* is what makes the second sentence false.

Now, whatever it is that makes the second sentence in each pair false contributes to the substitution failure in that case. In light of the foregoing comments, we can see that there is in fact a *distinct reason* for the substitution failures in the indexical cases: *de re beliefs* –

specifically (XXIX) and (XXX) – do not provide an explanation for the change in behavior, as opposed to *de dicto beliefs* in the non-indexical cases. The second distinguishing reason for the indexical substitution failure is the *manner* in which these de re beliefs are yielded. To elaborate on this point, I want to return to the comments I made in section 3.4. I noted that, while the sentence sets in the messy shopper and video game scenarios do appear to mirror one another, the belief relations indicated by the quoted text in sentences 7 and 9 explain body<sub>p</sub>'s change in behavior in fundamentally different ways.

Sentence 7 features an explanation that includes an identification relation between subject<sub>p</sub> and body<sub>p</sub>, whereas sentence 9 features an explanation that includes an identification relation between subject<sub>p</sub> and character<sub>p</sub>. Because these two relations are structurally different, it would follow that they do *not* explain the behavior of the *same object* (body<sub>p</sub>) in the *same way*. These structurally different identification relations, along with their respective belief contexts, supply different objects to yield their respective de re propositions. We see this below.

**(MSS) Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with **body<sub>p</sub>**.

**(MSS) De re belief indicated:** subject<sub>p</sub> believes of **body<sub>p</sub>**, that it is identical with body<sub>p</sub>.

**(VGS) Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with **character<sub>p</sub>**.

**(VGS) De re belief indicated:** subject<sub>p</sub> believes of **character<sub>p</sub>**, that it is identical with character<sub>p</sub>.

The point I now want to make is that the de re beliefs in the indexical cases that are responsible for the substitution failure are also yielded in virtue of an *identification relation*. This

is because the non-indexical, co-referential term that '*I*' is replaced with in the second sentence of each pair is determined by *the object that subject<sub>p</sub> identifies with*. From this, we can more clearly see the second distinguishing feature of indexical opacity. The beliefs that are responsible for the substitution failure in the indexical cases not only differ from those in the non-indexical cases with respect to the type of ascription; *they also differ with respect to the manner in which they are yielded*, since the de dicto beliefs indicated by sentences 14 and 16 are not yielded by any such identification relation.

For the sake of emphasizing the distinctiveness of the manner in which the de re beliefs in the indexical cases are yielded, I want to point out that since the above identification relations are structurally different, the manner in which each of the de re beliefs are yielded will differ *between the indexical cases themselves*. In light of this, it would seem that *there are in fact different reasons for the substitution failure even between the indexical cases themselves*.

Of course, we see no such thing in the non-indexical cases. In sentences 13 and 15, there is no indexical contained in their respective utterances; thus, there is no identification relation indicated in either of these cases, and so the beliefs indicated are structurally identical. From this, it then follows that the belief relations indicated by the utterances of sentences 14 and 16 emerge in the same way. In other words, it appears that the substitution failure of the non-indexical names in these cases occur for the *same reason*, which cannot be said of the substitution failures in each of the indexical cases.

The reasons that have been discussed above strongly suggest that there is something distinct about indexical opacity.

## 4.2 Taking Stock

In light of all that has been discussed, it seems that Cappelen and Dever's counterpart strategy is not sufficient in disproving motivational distinctiveness. While non-indexical counterpart cases can certainly be made, this strategy does not appear to take into account the precise *reasons* for substitution failures in indexical and non-indexical cases. As a result, it overlooks two distinct features of indexical opacity.

(I) The belief relations that are responsible for the failure of indexical substitutions are always *de re beliefs*, whereas the ones responsible for substitution failures involving names are always *de dicto beliefs*. (II) Furthermore, the *manner* in which these relations arise differ between the indexical and non-indexical cases, since the *de re* beliefs are yielded by *identification relations*. In fact, the manner in which these relations arise differ even between indexical cases themselves, but not the non-indexical cases; this suggests that indexical opacity is unique in that there can be different reasons for the occurrence of each particular indexical substitution failure.

That being said, it is important I note that my comments do not necessarily prove essential indexicality either. It is possible that the Fregean framework is mistaken to begin with, as Cappelen and Dever suggest, meaning that the approach taken in this paper to explain changes in behavior is fundamentally flawed. In the circumstance this is true, perhaps the insufficiency of the counterpart strategy in responding to motivational distinctiveness is not so important in defending essential indexicality.

## 5. IMPLICATIONS AND APPLICATIONS

### 5.1 The Dimensions of Identification

As of this point, it has been shown that there are compelling reasons to endorse essential indexicality. However, I now want to consider some other implications of what has been discussed so far. To do so, I will return to Perry's paper.

In 'The Problem of the Essential Indexical,' the main focus is on what distinguishes one body's utterance of '*I*' from another body's. In the messy shopper scenario, when body<sub>p</sub> uttered "I believe that *I* am making a mess," this was indicative of subject<sub>p</sub> identifying with body<sub>p</sub>. This suggests that if my body, 'body<sub>z</sub>,' were to utter the same statement, this would be indicative of an identification relation between subject<sub>z</sub> and body<sub>z</sub>.

However, after considering the video game scenario, it seems that the object a subject can identify with can actually vary according to *two dimensions*: (1) that of bodies and (2) that of particular objects that any one body has a significant connection with, in a particular context (e.g. the virtual object on a screen). In fact, there are various utterances which are indicative of relations of the latter kind, such as the following.

(U) "I believe that I am in possession of voting rights."

(V) "I believe that I am parked in lot 3."

If body<sub>p</sub> were to utter (U) while discussing matters of political reform, for instance, it would seem that subject<sub>p</sub> is identifying with, let us say, a *social object* (that can be characterized as something that is in possession of voting rights). We might construe this identification relation, as we have the others.

**Belief state indicated:** subject<sub>p</sub> believes of *itself*, that it is identical with **social object<sub>p</sub>**.

**De re belief indicated:** subject<sub>p</sub> believes of **social object<sub>p</sub>**, that it is identical with social object<sub>p</sub>.

Similar comments can be made about (V), which might be uttered when describing where his car is parked. In this case, the identification relation indicated would be between subject<sub>p</sub> and a certain car, 'car<sub>p</sub>.'

## 5.2 Further Applications

It is evident that there is a wide variety of objects, in a wide variety of contexts, that a subject can identify with. Additionally, we now have some idea of how to construe identification relations. But what is the application of all this? Well, with this groundwork established, it might be worth exploring the exact nature of these connections to shed further light on how utterances involving '*I*' explain behavior. There are a number of useful questions to be asked. *What* exactly is it that is doing the identifying/believing? *How* exactly does this subject come to identify with a certain object, in a certain context? As far as these questions go, I have only noted that some identification relations are structurally different from one another in order to make a point about the different reasons for substitution failure in different indexical cases. But apart from this, I have purposely refrained from pursuing such questions in this paper, so as not to get entangled in metaphysical weeds.

That being said, it is certainly worth exploring these questions, as such investigations are likely to have important contributions to the philosophy of language and mind, and to metaphysics in general.



## CONCLUSION

In summary, we have seen the problems that indexicality presents for the Fregean framework, as well as how Perry responded to these challenges. Furthermore, it was explained how we might interpret Perry's comments in regards to the belief relations that are indicated by indexical utterances. Specifically, a distinction was made between the subject bearing the belief relations and the object that the subject identifies with in that context. Using this interpretation, we were able to produce another scenario in which we saw that the object whose behavior is explained is not necessarily involved in an identification relation with the subject which bears the belief relations that explain that object's behavior.

Finally, we considered Cappelen and Dever's argument against motivational distinctiveness. In doing so, it was explained that their strategy neglects to account for the particular reasons as to *why* substitution failures occur in indexical and non-indexical cases. The reason for the failure of '*I*' to be substituted is different from the reason for any non-indexical name's failure to be substituted. The indexical '*I*' cannot be substituted because substitution results in the indication of a single de re belief, whereas non-indexical names cannot be substituted because substitution results in the indication of a single de dicto belief. This fact alone seems to suggest that there is something distinct of indexical opacity.

However, it was additionally seen that the reasons for substitution failure also differ between indexical and non-indexical cases with respect to the *manner* in which the beliefs responsible for the substitution failure are yielded: the de re beliefs in the indexical cases are always yielded by *identification relations*. This is due to the fact that the non-indexical, co-referential term that '*I*' cannot be substituted with in the second sentence of each pair is always

fixed by the identification relation of subject<sub>p</sub>; it is the term that refers to the object which subject<sub>p</sub> identifies with at the context of that scenario's belief state.

It was further shown that the manner in which these de re beliefs are yielded even differ between *indexical cases themselves*. This is illustrated by the identification relations featured in the messy shopper and video game scenarios. These two relations are structurally different, which suggests that the manner in which their respective de re beliefs are yielded will also differ. This ultimately shows that there are different reasons for substitution failure between the indexical cases themselves. We cannot say the same of the non-indexical counterpart cases; substitution in both of these cases fail for the same reason. The beliefs indicated by the original utterances are both de dicto beliefs that are identical in structure, and, following substitution, the de dicto beliefs that are indicated by the resulting utterances fail to provide an explanation for behavior. This gives more credence to the notion that there is something distinct of indexical opacity.

In light of all this, there seems to be a good case for motivational distinctiveness. However, it is important I reiterate that the claims I have made do not necessarily prove essential indexicality, since there could be flaws with the Fregean framework, for instance. Nevertheless, Cappelen and Dever's argument certainly does not disprove this phenomenon either.

On a final note, if the conclusions that have been drawn in this project are accurate, then they set the stage for more rigorous discussions in the philosophy of language and mind, and metaphysics more generally, regarding the nature of the *subject* that bears belief relations, the nature of the *relations* this subject has to the objects that it identifies with in particular contexts, and *how* these relations are established. It seems promising that an in-depth exploration of these questions will reveal insight into various subjects of philosophical importance, such as personal

identity, the first-person perspective, and consciousness – in addition, of course, to the nature of essentially indexical belief relations and the explanatory power they possess.

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