

# Indexicals and Demonstratives\*

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## 1 Introduction

When you use the word “I” it designates you; when I use the same word, it designates me. If you use “you” talking to me, it designates me; when I use it talking to you, it designates you. “I” and “you” are *indexicals*. The designation of an indexical *shifts* from speaker to speaker, time to time, place to place. Different utterances of the same indexical designate different things, because what is designated depends not only on the meaning associated with the expression, but also on facts about the utterance. An utterance of “I” designates the person who utters it; an utterance of “you” designates the person to whom it is addressed, an utterance of “here” designates the place at which the utterance is made, and so forth. Because indexicals shift their designation in this way, sentences containing indexicals can be used to say different things on different occasions. Suppose you say to me, “You are wrong and I am right about reference,” and I reply with the same sentence. We have used the same sentence, with the same meaning, but said quite different and incompatible things.

In addition to “I” and “you”, the standard list of indexicals includes the personal pronouns “my”, “he”, “his”, “she”, “it”, the demonstrative pronouns “that” and “this”, the adverbs “here”, “now”, “today”, “yesterday” and “tomorrow” and the adjectives “actual” and “present”. This list is from David Kaplan [1989a], whose work on the “logic of demonstratives” is responsible for much of the increased attention given to indexicals by philosophers of language in recent years. The words and aspects of words that indicate tense are also indexicals. And many other words, like “local”, seem to have an indexical element.

Philosophers have found indexicals interesting for at least two reasons. First, such words as “I” and “now” and “this” play crucial roles in arguments and paradoxes about such philosophically rich subjects as the self, the nature of time, and the nature of perception. Second, although the meaning of these

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words seems relatively straightforward, it has not been so obvious how to incorporate these meanings into semantical theory. I will focus on the second issue in this essay and, even with respect to that issue, discuss only a few of the many topics that deserve attention. Among other things, I won't consider tense, or plurals<sup>1</sup>, or the relation of indexicality to anaphora<sup>2</sup>, or Castañeda's concept of quasi-indication<sup>3</sup>. I'll focus on the words Kaplan listed, and among those on singular terms.

In section 2 I fix some concepts and terms. In section 3 I develop a treatment of indexicals that I call the "Reflexive-referential theory". It is based on an account by Arthur Burks, and also incorporates ideas from Reichenbach, Kaplan and a number of other authors.

## 2 Meaning, Content, and Propositions

*Meaning*, as I shall use the term, is a property of expressions—that is of *types* rather than tokens or utterances. Meaning is what is fixed by the conventions for the use of expressions that we learn when we learn a language. In contrast, *content* is a property of individual utterances. Content is tied to truth-conditions. The content of a statement—a specific use of a declarative sentence—is a proposition that embodies its truth-conditions. The contents of utterances of subsentential expressions—terms and predicates—is the contribution they make to truth-conditions; it's the things that utterances of names designate and the conditions expressed by utterances of predicates and definite descriptions.

Any part of speech can have an indexical element, but I'll focus on the role of such expressions as "I" and "you" and "that man" in simple statements. This will allow us to compare indexicals with the categories of expression most studied in the philosophy of language: proper names and definite descriptions—phrases of the form *the so and so*.

First I need to make some distinctions and develop some concepts about propositions. I will not need to adopt a specific and detailed ontology of propositions and their components for the purposes of this essay. There are two main approaches to propositions in the literature today, the classic conception of a proposition as a set of possible worlds, and a number of conceptions of structured propositions. I'll think of propositions structurally, but borrow the possible worlds conception when convenient to get clear about things. The distinctions I need can be made in any number of more detailed approaches.

Consider:

(1) Jim was born in Lincoln

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<sup>1</sup>See [Nunberg, 1992], [Nunberg, 1993], [Vallee, forthcoming]

<sup>2</sup>See [Partee, 1989], [Condoravdi and Gawron, forthcoming]

<sup>3</sup>See [Castañeda, 1967], [Corazza, forthcoming]

(1) is a statement of mine, referring to my son Jim Perry and to Lincoln, Nebraska. On the now standard view of proper names (which I'll discuss below), (1) expresses a *singular* proposition, a proposition that is about Jim himself and Lincoln itself, rather than any descriptions or attributes of them. In some of the possible worlds in which this proposition is true Jim will not be named "Jim"; in some he will look different than he in fact does, act differently than he in fact does, have a different job than he in fact has, and so forth. And in some of the worlds Lincoln may be named "Davis" or "McClellan" and may not be the capital of Nebraska. As long as Jim was born in Lincoln in a given world then the proposition is true in that world, whatever he is like and whatever he is called in that world, and whatever Lincoln is like and whatever it is called.

On the possible worlds conception of propositions, this proposition just is the set of worlds in which Jim was born in Lincoln. On a structural conception of propositions, one could think of the proposition expressed by (1) as an ordered pair of a sequence of objects and a condition:

$$\langle \langle \text{Jim Perry, Lincoln} \rangle, x \text{ was born in } y \rangle$$

Such propositions are true if the sequences of objects in the first member of the pair meets the condition that is the second member. It is natural to say that Jim himself is a constituent of the proposition, on the structural conception. Although on the this conception we don't identify the proposition with a set of worlds, it is still natural to talk about the worlds in which it is true.

In fact, Jim is the manager of Kinko's<sup>4</sup>, and Lincoln is the capital of Nebraska. So consider,

(2) The manager of Kinko's was born in the capital of Nebraska.

On the standard account of definite descriptions, (2) expresses a *general* proposition, a proposition that is not specifically about Jim and Lincoln, but about being the manager of Kinko's, and being the capital of Nebraska. This proposition is true in worlds in which someone—it doesn't have to be Jim—is the manager of Kinko's and some city—it doesn't have to be Lincoln—is the capital of Nebraska, and the someone was born in the city. Consider the possible world in which Omaha is the capital of Nebraska, and Marlon Brando or Henry Fonda or Saul Kripke or some other native Omahan<sup>5</sup> manages the Kinko's in Lincoln. In these worlds (2) would be true, wherever my son might be born.

Let a *mode of presentation* be a condition that has uniqueness built into it, so that at most one thing can meet it, such as *x is the manager of Kinko's* or *x is the capital of Nebraska*. We can think of the proposition expressed by (2) as an ordered pair of a sequence of modes of presentation and a condition:

$$\langle \langle x \text{ is the manager of Kinko's, } y \text{ is the capital of Nebraska} \rangle, x \text{ was born in } y \rangle$$


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<sup>4</sup>I use "Kinko's" as a name for the Kinko's store on P street in Lincoln.

<sup>5</sup>Actually, I'm not sure these famous people who grew up in Omaha were all born there.

The distinction between singular and general propositions is helpful, but a bit too simple. Consider,

- (3) Jim was born in the capital of Nebraska.

This would usually be called a singular proposition; being singular is sort of a dominant characteristic, so that if at least one argument role of a condition is filled by an object, the result is singular even if the other argument roles are filled by modes of presentation. I will speak this way, but we have to keep in mind that the basic concept is that of an argument role being filled either by an object or by a mode of presentation of an object.

Now consider,

- (4)  $x$  was born in Lincoln.

- (5)  $x$  was born in the capital of Nebraska.

(4) and (5) express conditions rather than propositions. But we need to draw a distinction between them. (4) is a singular condition, because it incorporates the city, Lincoln, as a constituent, while (5) is a general condition, with the modes of presentation,  $y$  is *the capital of Nebraska* as a constituent.

For our final point, look closely at (2). (2) expresses a general proposition—both argument roles of the condition  $x$  was born in  $y$  are filled by modes of presentation. But these modes of presentation themselves are singular, involving Kinko's and Nebraska as constituents, respectively. I'll say that a proposition or condition is *purely qualitative* if as one goes down through the hierarchy of conditions involved in it, one never encounters an object, only more conditions. I'll call it *lumpy* if one encounters an object. The proposition expressed by (2), though general, is lumpy.

Now compare

- (1) Jim was born in Lincoln.

- (6) The manager of Kinko's was born in Lincoln.

I use "designate" as a general word for the relations between singular terms and the objects they stand for. Thus the subject terms of both (1) and (6) *designate* the same person, Jim Perry. Both (1) and (6) assert the same thing of the same person, and in that sense (1) and (6) have the same truth conditions.

In spite of this, (1) and (6) are quite different, because the singular terms in them work quite differently. I'll express this difference by saying "Jim", the name in (1), *names* and *refers* to Jim Perry, but neither *denotes* nor *describes* him. "The manager of Kinko's" *denotes* and *describes* him, but neither *names* him nor *refers* to him. Let me explain these terms.<sup>6</sup>

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<sup>6</sup>The following distinctions, although not the terminology, I owe to Genoveva Marti, who presents them forcefully in [Marti, forthcoming]. On this topic and elsewhere I also owe a great debt to Recanati's *Direct Reference* [1993], a work that can be profitably consulted on virtually any topic connected with indexicality and reference.

**Denoting versus naming.** Definite descriptions and names have quite different sorts of meaning. Language associates definite descriptions with modes of presentation. Definite descriptions are only indirectly associated with the objects they designate, as the objects that meet the mode of presentation associated by meaning. So, in virtue of its meaning, “The manager of Kinko’s ” is associated with a certain mode of presentation. It designates Jim Perry not simply in virtue of its meaning, but in virtue of its meaning and his job.

With names it is quite different. The convention I invoke, when I use “Jim” to refer to my oldest son, is not a convention that associates the name with a condition which, as it happens, he fulfills. It’s just a convention that says that “Jim” is his name—a convention established when he was born and that name was used on the birth certificate.<sup>7</sup>

There are then two quite different forms an answer to the question “Why does term  $t$  designate object  $a$ ,” may take:

- (i) The meaning of  $t$  associates it with a certain mode of presentation  $C$ ,
- and (ii)  $a$  is the object that satisfies  $C$ .

or,

The meaning of  $t$  associates it directly with  $a$ .

I use the terms *denoting* for the form of designation corresponding to the first, two part, answer, and the term *naming* for the form of designation corresponding to the second, one part, answer.

**Describing versus referring.** Our second distinction has to do with the contribution terms make to what I shall call “the official content” of a statement. The official content of a statement is what we would take the speaker as having asserted or said, or, as it is sometimes put, “what is said” by the statement.

On standard accounts, at least, the official contents of (1) and (6) are different. The proposition expressed by (1) is a singular proposition about Jim, while that expressed by (6) is a general proposition about being the manager of Kinko’s. As we saw above, these are different propositions, true in different possible worlds.

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<sup>7</sup>It is easy to be led astray here. Suppose you see Jim at a party, and ask him what his name is. I tell you, and thus disclose to you a certain naming convention. Now you will be thinking of Jim Perry in a certain way at that point, perhaps as “the man I am looking at and just asked the name of and heard saying something interesting about computers a minute ago”. So, when I tell you that man’s name is “Jim”, the association in your mind may be between the name and a certain mode of presentation of him. This does not mean that the *convention* I have disclosed to you is a convention linking the name with the mode of presentation. The convention links the name with Jim; it has been around since he was born, and so long before he had anything interesting to say about computers; the mode of presentation comes in only because that is how you happen to be thinking of him; the mode of presentation is involved in your way of thinking of the convention, but not the convention itself.

I use “refers” and “describes” to mark this distinction. These terms pertain to the contribution a term makes to the official content of statements of which it is a part. Names *refer*; that is, they contribute to official content the individual they designate. Definite descriptions *describe*; that is, they contribute to official content the mode of presentation their meaning associates with them.<sup>8</sup>

If we ignore indexicals, confining our attention to names and definite descriptions, our two distinctions line up, and may seem to amount to the same thing.<sup>9</sup> Definite descriptions denote and describe, names name and refer. But in the case of indexicals the distinction is needed. For as we shall see, indexicals are like definite descriptions in that they denote, but like names in that they refer.

### 3 The Reflexive-referential theory

#### 3.1 Burks’ Framework

In his pioneering work Arthur Burks [1949], distinguishes the following aspects of an utterance containing indexicals:

- (i) The sign itself, which is a token that occurs at a spatiotemporal location and which belongs to a certain linguistic type.
- (ii) The existential relations of the token to other objects.
- (iii) The meaning associated with the type.
- (iv) The indexical meaning of the token, which, in the case of tokens involving indexicals, goes beyond the type meaning.<sup>10</sup>
- (v) The information conveyed by the sign.

Suppose, for example, Burks tells me, pointing to a house on Monroe Street in Ann Arbor: “I live in that house.” (i) The sign itself is the token or burst of sound that Burks utters; it is a token of an English sentence of a certain type, namely, “I live in that house”, and it occurs at a certain spatio-temporal location. (ii) This token has “existential relations” to other objects. That is, *there is* a person who uttered it (Burks), *there is* a house at which that person was pointing at the time of utterance, and so forth. (iii) English associates a

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<sup>8</sup>More accurately, in terms introduced below, definite descriptions contribute the condition associated with them by meaning and context, their content-C.

<sup>9</sup>Keith Donnellan’s famous distinction between referential and attributive uses of definite descriptions could be interpreted as the claim that definite descriptions do sometimes refer. I’ll basically ignore this idea in this essay, simply to keep the focus on indexicals, but see also footnote 17.

<sup>10</sup>Burks also uses the term “symbolic meaning” for a property of tokens determined by the meaning of their type.

meaning with the type, the same for every token of it. Any token of “I live in that house,” will be true if the speaker of that token lives in the house he or she points to at the time they produce the token. This is what all tokens of the type have in common. (iv) Each token also has an *indexical meaning*, which results from the combination of the type meaning and the particular token. Call the token Burks produced *t*. Imagine David Kaplan pointing to a house in Pacific Palisades at some other time and producing a token *t'*. *t* and *t'* have the same type meaning, but different indexical meanings. *t* will be true if the house Burks points to is the one he lives in, *t'* will be true if the house Kaplan points at is the one he lives in.

Aspect (v) is the information conveyed by the sign. Let's add a third token to our example. Let *t''* be my token of “You live in that house,” said to Burks, pointing to the house on Monroe Street. My token doesn't have the same symbolic meaning or the same indexical meaning as *t*, Burks' token of “I live in that house”. But there is something important that my token and Burks' have in common. Each of them will be true if a certain person, Burks, lives in a certain house, the one on Monroe Street. Once we factor in the contextual or “existential” facts that are relevant to each token, they have the same truth-conditions. Their truth places the same conditions on the same objects. Burks calls this “conveying the same information”.

The reflexive-referential theory that I advocate builds on Burks' basic framework. In sections 3.2-3.6, I go through the five aspects, usually starting with a discussion of Burks' basic idea. I discuss various issues, elaborating and qualifying the basic idea; the reflexive-referential theory is the account that emerges from this process. Here is an overview, highlighting the differences in terminology:

Aspect (i): Burks takes the signs itself to be the token. I think there is an ambiguity in “token”; it is sometimes used for the act, and sometimes for something produced by or at least used in the act. I'll use “utterance” for the first and reserve “token” for the second. In some kinds of discourse tokens are epistemically basic, but utterances are always semantically basic. (As I use the term “utterance” it does not have the implication of speech as opposed to writing.)

Aspect (ii): What Burks calls the “existential relations” is now usually referred to as the “context”; indexicals are expressions whose designation *shifts* from context to context. I will distinguish several different uses we make of context, and distinguish various contextual factors that are relevant to different types of indexicals.

Aspect (iii): For Burks the “type meaning” is associated by language with expressions. I simply call this “meaning”—I try to always use “meaning” for what the conventions of language associate with types. The key idea here in our account of the meaning of indexicals comes from Reichenbach, who emphasized the *reflexivity* of indexicals.

Aspects (iv) and (v): I take content to be a property of specific utterances. Burks recognizes two kinds of content, while I recognize (at least) three. What

Burks calls “indexical meaning” I call “content given facts about meaning” or “content-M”. What Burks calls “information conveyed” I call “content given facts about designation” or “content-D”. I claim that neither of these is our official, intuitive notion of content; that is, neither corresponds to “what is said” by an utterance. That role is played by “content given facts about context,” or “content-C”. All three kinds of content, however, play important roles in the epistemology of language.

### 3.2 Signs, Tokens and Utterances

For Burks, the sign itself is simply the token. But the term “token” is used in two ways in the literature. Sometimes it is used for the *act* of speaking, writing, or otherwise using language. At other times, it is used for an object that is produced by, or at least used in, such an act. Reichenbach, for example, says that tokens are acts of speaking, but then talks about the position of a token on a page.

I use “utterance” for the first sense. Utterances are intentional acts. The term “utterance” often connotes spoken language, but as I use it an utterance may involve speech, writing, typing, gestures or any other sort of linguistic activity.

I use “token” in the second sense, in the way Reichenbach used it when he said that a certain token was to be found on a certain page of a certain copy of a book. Tokens, in this sense, are traces left by utterances. They can be perceived when the utterances cannot, and be can used as evidence for them. Modern technology allows for their reproduction. The paradigm tokens are the ink marks produced in writing or typing. When we read, tokens are epistemically basic, and the utterances that produced them hardly thought of. But the utterances are semantically basic; it is from the intentional acts of speakers and writers that the content derives.

An utterance may involve a token, but not be the act of producing it. My wife Frenchie and I were once Resident Fellows in a dormitory at Stanford, eating with the students each evening in the cafeteria. If she went to dinner before I returned, she would write on a small blackboard on the counter, “I have gone to the cafeteria,” and set it on the table near the front door of our apartment. I would put it back on the counter. There was no need for her to write out the message anew each time I was late; if the blackboard had not been used for something else in the interim, she could simply move it from the counter back to the table. Frenchie used the same token to say different things on different days. Each use of the token was a separate utterance.

One can imagine the same token being reused as a token of a different type of sentence. Suppose there is a sign in a flying school, intended to warn would-be pilots: “Flying planes can be dangerous”. The flying school goes bankrupt; the manager of a park near the airport buys the sign and puts it next to a sign that prohibits walking on high tightropes. In its new use the sign is a token of a



type with a different syntax and a different meaning than in its original use. In principle, tokens could even be re-used for utterances in different languages; I leave finding such examples as an exercise for the reader.

In the case of spoken utterances in face to face communication, the utterance/token distinction becomes pretty subtle. One who hears the token will see the utterance which produces it. Writing brings with it the possibility of larger gaps between use and perception; letters are sent, books are put on shelves, to be read months or even years later, and so forth. The utterance/token distinction is most at home in the case of written text. It grows in importance as culture and technology develop. Modern technology allows for the storage and reproduction of both spoken and written tokens, and with such devices as email an utterance involves the production of numbers of tokens around the world.<sup>11</sup>

So, to review some distinctions and terminological decisions made thus far:

- *Tokens* are physical events or objects, bursts of sound or bits of written or electronic text, that are used by agents in their utterances.
- An *utterance* is an act that involves the use of a token and typically the production of a new token. Utterances can be spoken, written, typed, etc.
- A *statement* is an utterance of a declarative sentence.
- An *expression* is a type, either a word or a longer phrase such as a sentence.
- The utterances of expressions that are parts of utterances of larger expressions are *subutterances*; e.g. an utterance of “I was born in Lincoln” involves a subutterance of “I”.

### 3.3 Context

What Burks calls the “existential relations” of a token or utterance is now usually referred to as its “context”. The “context-dependence” of indexicals is often taken as their defining feature: what an indexical designates *shifts* from context to context. But there are many kinds of shiftiness, with corresponding conceptions of context. Until we clarify what we mean by “context”, this defining feature remains unclear.

The key distinction is between presemantic and semantic uses of context. Sometimes we use context to figure out with which meaning a word is being used, or which of several words that look or sound alike is being used, or even which language is being spoken. These are *presemantic* uses of context. In the

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<sup>11</sup>In [1992], Ken Olson and David Levy argue that to develop an account of documents adequate for the age of duplicating machines and computers we need to distinguish types, tokens and *templates*.

case of indexicals, however, context is used *semantically*. It remains relevant after the language, words and meaning are all known; the meaning directs us to certain aspects of context.

Consider these utterances:

- (7) Ich! (said by several teenagers at camp in response to the question, “Who would like some sauerkraut”).
- (8) I forgot how good beer tastes <sup>12</sup>
- (9) I saw her duck under the table.

With (7) knowing that the utterance occurred in Frankfurt rather than San Francisco might help us determine that it was German teenagers expressing enthusiasm and not American teenagers expressing disgust.

With (8), knowing whether our speaker has just arrived from Germany or just arrived from Saudi Arabia might help us to decide what the syntactic structure of the sentence is and whether “good” was being used as an adjective or an adverb.

With (9), knowing a little about the situation that this utterance is describing will help us to decide whether the person in question had lost her pet or was seeking security in an earthquake, and whether “duck” is a noun or a verb.

In each of these cases, the context, the environment of the utterance, the larger situation in which it occurs, helps us to determine what is said. But these cases differ from indexicals. In these cases it is a sort of accident, external to the utterance, that context is needed. We need the context to identify which name, syntactic structure or meaning is used because the very same shapes and sounds happen to be shared by other words, structures, or meanings. In the case of indexicals we still need context *after* we determine which words, syntactic structures and meanings are being used. The meanings *exploit* the context to perform their function. The meaning of the indexical “directs us” to certain features of the context, in order to fix the designation.

It seems then that a defining feature of indexicals is that the meanings of these words fix the designation of specific utterances of them in terms of facts about those specific utterances. The facts that meaning of a particular indexical deems relevant are the contextual facts for particular uses of it. However, indexicality is not the only phenomenon in which context plays a semantic role. *anaphora* provides another case.

In anaphora what one word designates depends on what another word in the same bit of discourse, to which the word in question is anaphorically related, designates. Compare

- 10 (Indicating a certain woman) She advocated subjective semantics in her UCLA dissertation.

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<sup>12</sup>Thanks to Ivan Sag for the examples.

- (11) That woman wrote a very interesting dissertation at UCLA. She advocated subjective semantics.

The designation of “she” in (10) simply depends on a contextual fact, whom the speaker was indicating. But in (11) the designation of “she” depends on which previous word in the discourse is taken as its antecedent. In both anaphora and indexicality we have semantic use of context; the difference is in the sorts of contextual facts that are relevant.

What is the relation between the “she” used in (10) and the “she” used in (11)? No one supposes they are mere homonyms. Many philosophers are at least tempted to suppose they are occurrences of a single ambiguous word, which sometimes functions as a variable and sometimes as an indexical [Kaplan, 1989a]. Many linguists find this implausible, and would prefer an account that gives a uniform treatment of pronouns, bringing the relativity to linguistic and other contextual factors into a single framework for a subject matter called “deixis” [Partee, 1989]. I have some sympathy with this point of view, but for the purposes of this essay I will set the issue of the precise connection of anaphoric and demonstrative uses of pronouns to one side.

### 3.3.1 Types of indexical contexts

With respect to contexts for indexicals, I need to emphasize two distinctions, which together create the four categories exhibited in Table 1:

- Does designation depend on narrow or wide context?
- Is designation “automatic” given meaning and public contextual facts, or does it depend in part on the intentions of the speaker?

I’ll show which expressions fit into these categories, and then explain them:

	Narrow	Wide
Automatic	I, now*, here*	tomorrow, yea
Intentional	now, here	that, this man, there

Table 1: Types of indexicals

**Narrow and wide context.** The narrow context consists of the constitutive facts about the utterance, which I will take to be the agent, time and position. These roles are filled with every utterance. The clearest case of an indexical that relies only on the narrow context is “I”, whose designation depends on the agent and nothing else.

The wider context consists of those facts, plus anything else that might be relevant, according to the workings of a particular indexical.

The sorts of factors on which an indexical can be made to depend seem, in principle, limitless. For example,

It is yea big.

means that it is as big as the space between the outstretched hands of the speaker, so this space is a contextual factor in the required sense for the indexical “yea”.

**Automatic versus intentional indexicals.** When Rip Van Winkle says, “I fell asleep yesterday,” he intended to designate (let us suppose), July 3, 1766. He in fact designated July 2, 1786, for he awoke twenty years to the day after he fell asleep. An utterance of “yesterday” designates the day before the utterance occurs, no matter what the speaker intends. Given the meaning and context, the designation is automatic. No further intention, than that of using the words with their ordinary meaning, is relevant.

The designation of an utterance of “that man”, however, is not automatic. The speaker’s intention is relevant. There may be several men standing across the street when I say, “That man stole my jacket”. Which of them I refer to depends on my intention.

However, we need to be careful here. Suppose there are two men across the street, Harold dressed in brown and Fred in blue. I think that Harold stole my wallet and I also think wrongly that the man dressed in blue is Harold. I intend to designate Harold *by* designating the man in blue. So I point towards the man in blue as I say “that man”. In this case I designate the man in blue—even if my pointing is a bit off target. My intention to point to the man in blue is relevant to the issue of whom I designate, and what I say, but my intention to refer to Harold is not. In this case, I say something I don’t intend to say, that Fred, the man in blue, stole my wallet, and fail say what I intended to, that Harold did. So it is not just any referential intention that is relevant to demonstratives, but only the more basic ones, which I will call *directing intentions*, following Kaplan [1989b].

In a case like this I will typically perceive the man I refer to, and may often point to or otherwise demonstrate that person. But neither perceiving nor pointing seems necessary to referring with a demonstrative.

The indexicals “I”, “now”, and “here” are often given an honored place as “pure” or “essential” indexicals. Some writers emphasize the possibility of translating away other indexicals in favor of them [Castañeda, 1967], [Corazza, forthcoming]. In Table 1, this honored place is represented by the cell labelled “narrow” and “automatic”. However, it is not clear that “now” and “here” deserve this status, hence the asterisks. With “here” there is the question of how large an area is to count, and with “now” the question of how large a stretch of time. If I

say, “I left my pen here,” I would be taken to designate a relatively small area, say the office in which I was looking. If I say, “The evenings are cooler than you expect here” I might mean to include the whole San Francisco Bay area. In “Now that we walk upright, we have lots of back problems,” “now” would seem to designate a large if indefinite period of time that includes the very instant of utterance, while in “Why did you wait until now to tell me?” it seems to designate a considerably smaller stretch. It seems then that these indexicals really have an intentional element.

“Here” also has a demonstrative use. One can point to a place on a map and refer to it as “here” [Kaplan, 1989a]. “Now” and the present tense can be used to draw attention to and confer immediacy on the time of a past or future event, as when a history teacher says, “Now Napoleon had a dilemma...” [Smith, 1989].

### 3.4 Meaning

To repeat, as I use the terms, *meaning* is what the rules of language associate with simple and complex expressions; *content* is an attribute of individual utterances. The simple theory into which I am trying to incorporate indexicals focusses on the contents of utterances of four kinds. The content of a statement is a proposition, incorporating the conditions of truth of the statement. The content of an utterance of a predicate (for our purposes, a declarative sentence with some of its terms replaced by variables) is a condition on objects. The content of an utterance of a definite description will be a mode of presentation. The content of the utterance of a name will be an individual. The contents of utterances of terms combine with the contents of utterances of predicates to yield propositions.

The contents of utterances derive from the meaning language associates with expressions. The simplest way for this to happen is equisignificance: the meaning of an expression assigns the same content to each and every utterance of the expression.

But, as I explained in section 3.3, indexicals don’t work this way. The meaning directs us to certain aspects of the context of the utterance, which are needed to determine the content. The object designated by an indexical will be the object that bears some more or less complicated relation to the utterance. Instead of the usual twofold distinction—*sinn* and *bedeutung*, meaning and denotation, intension and extension—we have a threefold one:

The meaning provides us with a binary condition on objects and utterances, the condition of designation.

The utterance *itself* fills the utterance parameter of this condition, yielding a unary condition on objects, or a mode of presentation.

The object that meets this condition is the object designated by the indexical, or the *designatum*.

The *reflexivity* apparent in the second level has long been one of the major themes in the study of indexicals. Reichenbach put forward a *token-reflexive* theory in his *Introduction to Symbolic Logic* [1947].

Reichenbach claimed that token-reflexive words could be defined in terms of the token-reflexive phrase “this token”, and in particular, as he put it, “The word ‘I’... means the same as ‘the person who utters this token’...(284)”.

If we take Reichenbach’s claim as a literal claim of synonymy between “I” and “the person who utters this token”, it is wrong. The two terms may be assigned the same condition, but “I” refers whereas “the person who utters this token” describes. But Reichenbach was clearly on to something. There is an intimate connection between the meanings of “I” and “the person who utters this token”, even if it falls short of synonymy. The second phrase does not *have* the meaning of “I”, but it *gives* part of the meaning of “I”. It supplies the condition of designation that English associates with “I”. We can put this in a rule that brings out the reflexivity:

If  $u$  is an utterance of “I”, the condition of designation for  $u$  is *being the speaker of  $u$* .

Here we see that the condition of designation assigned to an utterance  $u$  has that very utterance as a constituent, hence it is reflexive. (I discussed the reasons for using “utterance” rather than “token” above in section 3.2.)

This rule does two things. First, it assigns a binary condition to the type, “I”. The condition is *that  $x$  is the speaker of  $u$* . This condition has a parameter for the object designated and one for utterances. Second, the rule assigns unary condition, on objects, to each utterance of “I”, by specifying that the utterance parameter is to be filled with that very utterance. To state this sort of rule in English, we would naturally make use of a reflexive pronoun:

The designation of every utterance of “I” is the speaker of the utterance *itself*.

Here are the conditions of designation for some familiar indexicals, in line with the discussion in section 3.3.

**I:**  $u$  designates  $x$  iff  $x$  is the speaker of  $u$ .

**you:**  $u$  designates  $y$  iff  $\exists x(x$  is the speaker of  $u$  &  $x$  addresses  $y$  with  $u$ )

**now:**  $u$  designates  $t$  iff  $\exists x(x$  is the speaker of  $u$  &  $x$  directs  $u$  at  $t$  during part of  $t$ )

**that  $\phi$ :**  $u$  designates  $y$  iff  $\exists x(x$  is the speaker of  $u$  &  $x$  directs  $u$  towards  $y$ )

In considering the meanings of sentences, it is helpful to think of propositions as 0-ary conditions. English assigns 0-ary conditions, propositions,

to indexical-free sentences but assigns unary conditions on utterances to sentences with indexicals in them.

So our conditions of designation give rise to *conditions of truth* that also are reflexive. Meaning does not associate a proposition or 0-ary condition with a sentence containing an indexical, but a unary condition on utterances:

An utterance  $u$  of the form  $\phi(\alpha)$ , where  $u'$  is the subutterance of an indexical  $\alpha$ , is true iff  $\exists y (u' \text{ designates } y \ \& \ \phi(y))$ .

So, for example,

An utterance  $u$  of “You were born in Los Angeles”, where  $u'$  is the subutterance of “you”, is true iff  $\exists y (u' \text{ designates } y \ \& \ y \text{ was born in Los Angeles})$ ;

that is, iff

$\exists y \exists x (x \text{ is the speaker of } u' \ \& \ x \text{ addresses } y \text{ with } u \ \& \ y \text{ was born in Los Angeles})$ .

On David Kaplan’s approach, the meaning of expressions in languages with indexicals are regarded as *characters*. Characters are functions from contexts to contents. So the meaning of “I” is a function, whose value is  $a$  for contexts in which  $a$  is the speaker and the meaning of “I am sitting” is a function whose value is the singular proposition that  $a$  is sitting for such contexts. This theory neatly captures what is special about *context* in the case of indexicality; that it plays a semantic role, rather than merely a presemantic one. I don’t think Kaplan’s view does as well with what is special about *content* in the case of indexicals, however. Kaplan provides only one level of content—official content—where I agree with Burks that more than one level of content is needed in the case of indexical utterances. In the next two sections I will defend Burks’ perspective.

### 3.5 Content-M

Reichenbach analyzed Luther’s utterance, “Here I stand,” in terms of the relation

- $(\text{speaks } x, \tau, z)$ ,

where  $x$  is a person,  $\tau$  is a token and  $z$  a place:

$stands[(ix)(Ez) \text{ speaks}(x, \theta, z), (iz)(Ex) \text{ sp}(x, \theta, z)]$

$\theta$  is Reichenbach’s term for Luther’s utterance; his analysis amounts to:

(12) The speaker of  $\theta$  stands in the place where  $\theta$  is made<sup>13</sup>

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<sup>13</sup>More literally: The person such that there is a place where that person speaks  $\theta$  there stands at the place such that there is a person who speaks  $\theta$  there.

In our scheme, we have here a general proposition about two modes of presentation, being the speaker of  $\theta$  and being the place of  $\theta$ . Each of these modes is a singular condition, with  $\theta$  as a constituent.

This proposition fits pretty well Burks' description of his fourth aspect, as what results from combining the meaning with the token or utterance. On the reflexive-referential account, the meaning of a sentence like Luther's is a condition on utterances, and Reichenbach's analysis fills the parameter of that condition with the utterance itself. It seems that Reichenbach's proposition or something like it deserves a central place in our account.

However, (12) is clearly not what Luther said. He didn't say anything about his own utterance, and he referred to himself with "I", rather than describing himself. (12) is not a good candidate for the official content of Luther's remark. Where then does it fit in?

On Kaplan's approach, the level of analysis represented by (12) and by Burks' fourth aspect is bypassed [1989, 1989a]. The meaning, or *character*, of an indexical is, on Kaplan's theory, a function from context to official content, to what is said. The approach Barwise and I took in *Situations and Attitudes* [1983] was similar, although we did compensate somewhat with what we called "inverse interpretation". Stalnaker complained that something was missing from such approaches [1981], and I have come to think that he and Burks were correct.<sup>14</sup> In fact, we need a variety of contents.

### 3.5.1 Varieties of Truth-conditions

A problem that underlies the simple picture of meaning and content is now going to come to the surface. The problem is that the concept of "truth-conditions of an utterance" is a *relative concept*, although it is often treated as if it were absolute. Instead of thinking in terms of *the* truth-conditions of an utterance, we should think of the truth conditions of an utterance *given* various facts about it. And when we do this we are led to see that talking about *the* content of an utterance is an oversimplification.

Suppose that you are at an international philosophy meeting. During what seems a stupid lecture, the person next to you writes a note which he passes to you. It says, "Cet homme est brillant". He then whispers, in English, "Don't you agree?" You are a confirmed monolingual, and don't even recognize in which language the message is written. To avoid compounding ignorance with impertinence, you nod. All you can infer about the message is that it is a statement, with which one could agree or disagree. Do you know the truth-conditions of his message?

Given the ordinary philosophical concept of the truth-conditions of an utterance, you certainly do not. You have no idea what proposition is expressed.

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<sup>14</sup>For a discussion of Stalnaker's approach and its relation to Reichenbach's approach and the current approach, see [Perry, 1993], pp. 51ff. Evan's complaints [Evans, 1981] about [Perry, 1977] are related. See [Perry, 1993], pp. 26ff.



If you did, you wouldn't have nodded as if you agreed.

But you could list some conditions, such that, were they met, the message would be true. Call the message **m**. It is true if there is a proposition *P*, such that in the language in which **m** is written, its words have a certain meaning, and in the context in which **m** was written, words with that meaning express *P*, and *P* is true.

It is fair to call these truth-conditions of **m**, because they are conditions such that, were they satisfied, **m** would be true. But they are not what philosophers usually have in mind when they talk about the truth-conditions or content of the message. They would have in mind the proposition that a certain person, the lecturer, was brilliant.

But this philosophical concept of truth-conditions is a special case of a more general one: the truth-conditions of an utterance *given* certain facts about it. What you know about **m** is its truth-conditions given only the barest facts about it, that it is a statement. You can specify conditions under which **m** would be true, but because you know so little about **m** itself, those conditions have a lot to do with **m**'s relation to the rest of the world and say little about the world independently of **m**. The philosophical concept of truth-conditions corresponds to the case in which one knows a lot about **m**; in this case the conditions will pertain to the world outside **m**, not **m** itself.

If your high-school French started to return to you, you might reason as follows:

*Given* that the language of **m** is French, and *given* the meaning of “Cet homme est brillant” in French, and *given* the fact that the author of **m** intended to use the words “Cet homme” to refer to a that person (looking at the lecturer), **m** is true iff *that person is brilliant*.

As you figure out more about **m**, fixing more of its linguistic properties, the conditions that had to be fulfilled for its truth become more focussed on the world. The *additional* or *incremental* conditions required for the truth of **m**, given all that you knew about **m**, were conditions on a certain person, that he be brilliant. Our philosophical concept of truth-conditions of an utterance is the *incremental* conditions required for truth, given that all of these linguistic factors are fixed.

This picture of truth-conditions as relative is just a matter of treating them like other conditions we ask about. Whenever we ask about the conditions under which something has a certain property, we take certain facts as given. What we want to know is *what else*, what additional facts, have to obtain, for the thing to have that property, *given* the facts we assume. I ask you “Under what conditions will Clinton get re-elected?” and you say, “He has to carry California”. You are taking for granted a number of things—that he will lose the South, do well in the in the Northeast, get at least two midwestern states. *Given all of this*, what *else* does he need to carry California?

It's the same with truth-conditions. What does the world have to be like for **m** to be true? That guy must be a brilliant lecturer. Right—*given* the facts about the language, the words, the meaning and the context of **m**, that's what *else* is needed.

As I mentioned above, I use three different kinds of content in the account of indexicals. These correspond to three kinds of facts one might take as fixed in assessing truth-conditions:

The *content-M* of an utterance corresponds to the truth-conditions of the utterance given the facts that fix the language of the utterance, the words involved, their syntax and their *meaning*.<sup>15</sup>

The *content-C* of an utterance corresponds to the truth-conditions given all of these factors, plus the facts about the *context* of the utterance that are needed to fix the designation of indexicals.

The *content-D* of an utterance corresponds to the truth-conditions given all of these factors, plus the additional facts that are needed to fix the *designation* of the terms that remain (definite descriptions in particular, but also possessives, etc.).

We shall see below that we need all three kinds of content to adequately describe the epistemology of indexicals and other terms.

### 3.5.2 Content-M as cognitively relevant content

As we saw in section 3.4, the meaning of an indexical or sentence containing indexicals provides a condition on utterances. We move from this condition to the content-M of an utterance of that type by filling the parameter of that condition with the utterance itself. In the case of indexical terms, we go from binary conditions on objects and utterances to 1-ary conditions on objects. In the case of sentences containing indexicals, we go from 1-ary conditions on utterances to 0-ary conditions, propositions. These are propositions *about* utterances.

Consider,

(13) You were born in the capital of Nebraska.

The content-M of (13) is a proposition about (13) itself:

$\exists x \exists y (x \text{ is the addressee of (13) \& } y \text{ is the capital of Nebraska \& } x \text{ was born in } y)$

As we noted, this proposition certainly does not seem to be the official content of (13), what the speaker said when he uttered (13)—a point I will emphasize in the next section.

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<sup>15</sup>Note that, given our assumption that names name rather than denote, this means that the designata of names is fixed at the level of *content-M*.

Nevertheless, content-M is very important in understanding the connection between meaning and cognition, how we use language to express our beliefs, and influence the beliefs of others. It is *cognitively relevant* content.

Imagine that I am standing next to W.V.O. Quine at a party. Consider the difference between my saying “I would like to shake your hand” and “John Perry would like to shake your hand.” In response to the first, we would expect Quine to extend his hand; in response to the second, he might well ask “Well, where is he?” (See [Castañeda, 1966], [Perry, 1979], [Stalnaker, 1981], [Perry, 1993].)

If we ask what I hoped to accomplish by saying “I’d like to shake your hand”, we might just say that I wanted to make him aware that I wanted to shake his hand, so I said that I wanted to. This would be accurate, but incomplete. It leaves out many of my subgoals and my plans for achieving them. I spoke the sentence, rather than including it in a letter or email, because I realized that he was standing where he could hear me. I said it in English because I thought that he understood English. I wanted him to be aware of that, in order to get him to turn and offer his hand for me to shake. In order to get that effect, I wanted to produce a certain kind of thought in him. I wanted him to think that the person in front of him wanted to shake his hand. My plan might be summarized as follows:

**Goal:** To get Quine to turn towards me and offer his hand for me to shake.

**Given:** Quine knows English; he can hear me if I speak; he can see me and will recognize that the person he sees is the speaker of the utterance he hears; he knows how to shake hand with a person in front of him; he is good-natured and will try to shake the hand of someone next to him if he knows that this person would like him to.

**Plan**

- (i) Direct an utterance **u** of “I’d like to shake your hand” at Quine.
- (ii) Quine will hear **u** and grasp its content-M, thinking “that utterance is spoken by someone who wants to shake the hand of the person he or she is addressing.”
- (iii) Quine will think “that person I see in front of me is the speaker of that utterance.”
- (iv) Quine will think “I am the person the person I see in front of me is addressing”.
- (v) Quine will think “that person I see in front of me wants to shake my hand”.
- (vi) Quine will extend his hand.

Now the content-M of my utterance is the key to this plan. The content-C of my utterance is simply the singular propositions that John Perry want to shake W.V.O. Quine's hand. This is the same as the content-C of "John Perry wants to shake your hand".<sup>16</sup> But there would be no reason to expect this utterance to have the desired effect, given my assumptions. The difference between them comes out at the level of content-M.

### 3.6 Official Content

#### 3.6.1 Content-C as official content

Content-M is a useful tool for understanding the motivation and impact of utterances. But it is not our ordinary concept of content. It is not what I have called official content, the content that corresponds to what the speaker says. There are two main arguments for this; the reader may be convinced by and familiar with the arguments, but I want to highlight them to help us reflect on just what they show.

The first and simplest I'll call this the "samesaying argument". Consider my utterance, directed at my son Jim:

(14) You were born in Lincoln.

The content-M of (14) is a proposition about (14). But we would ordinarily count me as having said the same thing to him as he said to me with his utterance

(15) I was born in Lincoln

and the same thing I say to a third party with my utterance

(1) Jim was born in Lincoln

But these two utterances have quite different contents-M than (14). The content-M of (15) is a proposition about (15) itself, and the content-M of (1) is just a singular proposition about Jim (since names name, their designation is fixed by their meaning). It seems then that it is the individual designated by the subutterance of "you", and not the condition of being the addressee of that subutterance, that makes it into the official content of (14).

The second argument I call the "counterfactual circumstances argument." To understand it, one needs to keep clearly in mind the difference between the conditions under which an utterance is true, and conditions under which *what is said by the utterance* (or perhaps better, *what the speaker says*, in virtue of making the utterance) is true. We can separate these, by considering counterfactual

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<sup>16</sup>See footnote 15.

circumstances in which the utterance is false, but what is said by the utterance is true [Kaplan, 1989a].

Now suppose, contrary to fact, that when I uttered (14) I was mistaken, and was talking to my son Joe rather than Jim. In those circumstances, my utterance would have been false, since Joe was born in California. And what I would have said in those circumstances, that Joe was born in Lincoln, is false. But what I *actually* said, since I actually was talking to Jim, was that he was born in Lincoln. And that proposition, that Jim was born in Lincoln, would have been true, even if, when I uttered (14), I was talking to Joe.

The upshot of these arguments is that the official content of (14) is a singular proposition about Jim. This is the same proposition that Jim expressed with (15), and that I expressed with (1). And it is a proposition that would still be true even if I were talking to Joe rather than Jim, although of course then I would not have expressed it, but a quite different and false proposition about Joe.

Our other two kinds of content, content-C and content-D, both assign this proposition to (14), (15) and (1). But these differ with respect to

(6) The manager of 'Kinko's was born in Lincoln.

Content-C, recall, corresponds to truth-conditions with the contextual facts fixed. The content-C of (6) is not a singular proposition about Jim. The first argument role of  $x$  was born in  $y$  gets filled with a mode of presentation of Jim, not Jim himself.

Content-D corresponds to truth-conditions with *all* the facts that determine designation of terms fixed, including in this case the fact that Jim is the manager of Kinko's. So the content-D of (6) is our singular proposition about Jim.

Content-D corresponds to Burks' concept of "information conveyed". On this concept (14), (1) and (6) all convey the same information, "for they both refer to the same object and predicate the same property of it."

Which corresponds to official content, content-C or content-D? It depends on whether we think of definite descriptions as referring or describing. If they refer, then they contribute the objects they designate to official content, and the right answer is that content-D is official content. If they describe, then content-C is the right answer. For the purposes of this essay, I have accepted the traditional account of definite descriptions as describing.<sup>17</sup>

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<sup>17</sup>As noted in footnote 9, I am officially ignoring Donnellan's distinction between attributive and referential uses of definite descriptions. This is not to imply that there is anything absurd about the idea that definite descriptions refer. Recanati has a clear conception of this. He sees terms as having or lacking a certain feature, "ref". In my terms, a term that has this feature contributes the object it designates to official content, whether the term names or denotes. Indexicals have this feature in virtue of their meaning. On Recanati's view definite descriptions do not have this feature built into their meaning, but it can be added at a pragmatic level in particular cases [1993]. One can surmise that David Kaplan's "dthat" operator [1979, 1989] is a way of making the ref feature syntactically explicit; "dthat" itself is, of course, open to various interpretations, even by its inventor [1989b].

With this understanding of definite descriptions, it seems that content-C corresponds to official content. When we compare what people say, and consider the counterfactual circumstances in which what they say is true, we fix the meaning and context, but let other facts vary, even the ones that fix the designation of definite descriptions. Consider,

(16) You were born in the capital of Nebraska

said to Jim. When we think of the possible worlds in which this is true, what do we require of them? Worlds in which Jim was born in Iowa, but “You were born in the capital of Nebraska” means that  $2 + 2 = 4$  don’t get in. We fix the meaning, before we consider the world. Worlds in which Jim was born in Iowa, but I am talking to Sue, who was born in the capital of Nebraska, don’t get in. We fix the contextual facts, and so the designation of indexicals, before we consider the worlds. But worlds in which Jim was born in Omaha, and Omaha is the capital of Nebraska do get in. We consider the worlds, before we fix the facts that determine the designation of definite descriptions.

### 3.6.2 Referentialism

In maintaining that content-C is official content, I agree with a movement in the philosophy of language I call “referentialism”. The referentialist thinks that names and indexicals refer, and statements containing them express singular propositions. This set of views constitutes a movement because it had to overthrow an opposing orthodoxy, which dated back to Frege and Russell.

Frege was troubled by singular propositions.<sup>18</sup> How can a proposition have an object in it? Won’t there always be different ways of thinking about the object? So won’t a belief or desire or hope about an object always involve some specific way of thinking about it? Shouldn’t the propositions we are worried about be ones that incorporate those ways of thinking—shouldn’t propositions always have modes of presentation, not objects, as constituents?

This line of thinking led Frege and Russell away from singular propositions; Frege didn’t have them at all, and Russell made less and less use of them as time went on. Both concluded that names were something like hidden definite descriptions; in our terminology, ordinary names denote and describe rather than name and refer<sup>19</sup>. And this became the standard view for the first two-thirds of the century—with some dissenters like Burks and Ruth Marcus ([Marcus, 1961], pp. 309-310). When Donnellan and Kripke attacked description theories of names and argued that names referred and statements containing them expressed singular propositions, the feeling was that something like

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<sup>18</sup>See the discussion in [Perry, 1990].

<sup>19</sup>Russell continued to recognize a category of “logically proper names” that referred, but ordinary proper names weren’t among them. Interestingly, they comprised such indexicals as “this” and “I”.

a conceptual revolution was occurring. And Kaplan's "direct reference" theory of indexicals seemed to turn the revolutionary doctrine into unassailable common sense.

It seems to me that the referentialist movement was basically correct. Names and indexicals refer; they do not describe. Singular propositions may be sort of fishy, but they play a central role in the way that we classify content for the purpose of describing minds and utterances. Our concept of what is said is, as such things go, fairly robust.

Still, it is not entirely clear how far reaching the philosophical consequences of this revolution are. There are three attitudes towards the referentialist treatment of "what is said" or official content:

**The skeptic.** Something is wrong with official content, for the reasons sketched above. The whole idea was really refuted by Frege, with his puzzles about identity. Consider the two cases we looked at in section 3.5. One can simply not give a coherent account of these cases, if one sticks to content-C or content-D. So the true contents must be something else.

**The true believer.** Referentialist arguments show what the true content of a statement is. We just have to live with any epistemological difficulties it raises. The proposition expressed by an utterance is its "semantic value", that which a competent speaker and hearer must grasp, and all the information that is semantically conveyed by the utterance is to be found in, or implied or implicated by, this proposition.

**The moderate.** Official content gets at an aspect of statements that is important for describing utterances, one that has shaped the concepts of "folk psychology"—but no more than that. There is no reason to postulate that an utterance has a unique "semantic content" that encapsulates all of the information it semantically conveys.

The third, reasonable sounding view is of course my own. I call it "critical referentialism"—a term so ugly only moderates could like it. The critical referentialist believes that one commits "the fallacy of misplaced information" [Barwise and Perry, 1983] when one expects that all of the content a meaningful utterance carries can all be found at the level official content. Critical referentialism is simply referentialism without the fallacy. Free of the fallacy, the referentialist can employ other aspects of content, such as content-M, to explain the motivations and impact of language on semantically competent speakers and listeners, without having to elevate it to official content.

According to critical referentialism, the counterfactual test and samesaying tests identify the proposition that best fits our intuitive conception of *what is said* by an utterance or *what the speaker says* in making an utterance. There are many other propositions systematically associated with an utterance in virtue

of the meaning of the words used in it, which can and must enter into the explanation of the significance the utterance has for competent speakers and listeners.

The “reflexive-referential” account of indexicals developed in this essay is an example of critical referentialism. We need to consider the content-M of statements containing indexicals to deal with the sorts of cases that bothered Frege, such as our example of meeting Quine. But for other purposes, including those enshrined in our everyday concepts for describing utterances, the referentialist concept of what is said is useful and legitimate. Burks’ original account was also critically referentialist; he recognized the importance of content-D for certain purposes, and of content-M for others.

The importance of the contextual or official level of content stems from the basic facts of communication and the purposes for which our ordinary tools for classifying and reporting content are adapted.

In the paradigm communicative situation, the speaker suits the message to the listener’s knowledge of the context of utterance and the impact on belief he hopes to achieve. That is, he assumes the listener to know the relevant contextual facts, and tries to convey the incremental content. I assume that Quine will recognize the speaker of “I’d like to shake your hand,” (“that person in front of me”) and the addressee (“me”). Given this knowledge, the additional information he receives is: *that person* would like to shake *my* hand. The incremental content of my utterance, given the facts about context—the singular proposition that John Perry would like to shake Quine’s hand—does a good job of characterizing what *additional* fact I am trying to convey to Quine, given what he knows and what will be obvious to him.

In a non-philosophical moment someone might explain Quine’s action, of turning and extending his hand to me, by simply saying:

(16) Perry told Quine that he wanted to shake his hand.

The embedded sentence here, “he wanted to shake his hand”, does not seem to identify any of the modes of presentation that were crucial to my plan and Quine’s understanding, as explored in section 3.5. And yet (16) is a perfectly adequate explanation.

We have to see this as a *situated* explanation. In the background is the assumption that Quine and I were engaged in a normal case of face to face communication. The explainer tells what I was trying to *add to* what Quine knew and could easily perceive, and to do this it suffices to identify the singular proposition that is the content-C of my utterance. This is what the ordinary report does.

Frege’s insight was that there are multiple ways to cognize any object. Any utterance that adds to a listener’s knowledge in a significant way will connect to the modes of presentation by which the listener already cognizes the object, or can easily do so, and the modes of presentation that connect with the



ways the listener has for acting on the object or dealing with information about the object. To trace these interactions in a completely unsituated way, making no assumptions, dealing with the listener's thought processes in a way that doesn't rely on the external world to suggest internal connections, would require what we might call completely "Fregean" content, totally without lumps. For practical purposes, what we need is "Fregean-enough" content. That is, we must specify the modes of presentation that are actually involved in cognition and the ways they are linked in the mind insofar as there is something in the context of explanation that suggests that the ordinary links might be broken.<sup>20</sup>

Thus when I raised, in 3.5, the question of the difference between "I'd like to shake your hand" and "John Perry would like to shake your hand", I undermined the assumptions that make (16) an adequate explanation of Quine's action. I asked for an account of exactly what is taken for granted by (16), the planned connections between the modes of presentation involved in the utterance (being the speaker of it, being the addressee), and those involved in the cognitions that led to Quine's action (being the man he sees, being himself)<sup>21</sup>.

When we retreat from the content-C of my utterance to its content-M, to provide an explanation for the links now brought into question, we retreat to more Fregean, less lumpy content, in the sense that I and Quine are replaced by modes of presentation. But note that the content is not without lumps. For the content-M of an utterance is also a singular proposition, about the utterance itself. The explanation I gave in 3.5 is also situated; the assumption is that Quine hears my utterance in the usual way, as it comes out of my mouth. If we asked why I could get him to shake my hand by talking *to* him, but not by saying the same thing in such a manner that his first perception of my utterance was of an echo from a far room (details left to reader), we would have to revert to even more Fregean content, with modes of presentations of the utterance, rather than the utterance itself, appearing in the contents.

## 4 Conclusion

We can now contrast indexicals with other expressions. Indexicals differ from other shifters in the role that context plays. In the case of indexicality, context does not affect designation by providing evidence for what word is being used, with what meaning. Context plays its role after the words, syntax and meanings are all fixed, for in the case of indexicals meaning determines content relative to contextual factors. Anaphors also use context semantically, but the relevant facts are relations between utterances, while with indexicals the relevant fact relate the utterance to non-linguistic items. Indexical pronouns are

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<sup>20</sup>Compare what David Israel and I say on the issue of having "narrow" enough content in [1991].

<sup>21</sup>For more on these themes, see [Israel,Perry and Tutiya, 1993].

like definite descriptions in that they denote; they are like names in that they refer.

Our examination of the reflexive theory of indexicals leads to an important distinction, between reflexivity and indexicality. Return for a moment to our example of the note saying “Cet homme est brillant,” with which I introduced the concept of relative truth-conditions. I’ll alter the note slightly, to get in a definite description: “Cet homme est l’homme le plus brillant dans cette salle”. We could construct a whole hierarchy of relative truth-conditions for such a message, of the form, given that *such and such*, **m** is true iff *so and so*:

- 1 Given that **m** is in French, **m** is true iff the meaning in French of the words on **m** is such that in the context of **m** they express a true proposition.
- 2 Given that **m** is in French, and the words are “Cet homme est l’homme le plus brillant dans cette salle”, **m** is true iff these words have a meaning in French such that in the context of **m** they express a true proposition.
- ...
- m* (Content-M) Given that **m** is in French, the words are “Cet homme est l’homme le plus brillant dans cette salle”, that in French these words mean that the man the speaker directly intends to refer to is the most brilliant man in the room, **m** is true iff there is a man the speaker of **m** directly intends to refer to and that man is the most brilliant man in the room.
- m* + 1 (Content-C) Given that **m** is in French, the words are “Cet homme est l’homme le plus brillant dans cette salle,” that in French these words mean that the man the speaker directly intends to refer to is the most brilliant man in the room, and that the speaker of **m** directly intends to refer to Henri, **m** is true iff Henri is the most brilliant man in the room.
- m* + 2 (Content-D) Given that **m** is in French, the words are “Cet homme est l’homme le plus brillant dans cette salle,” that in French these words mean that the man the speaker directly intends to refer to is the most brilliant man in the room, and that the speaker of **m** directly intends to refer to Henri, and given that the most brilliant man in the room is Jacques, **m** is true iff Henri is Jacques.

Perhaps, in line with our Fregean inclinations, even ending with something like...

- m*+? Given that **m** is in French, the words are “Cet homme est l’homme le plus brillant dans cette salle,” that in French these words mean that the man the speaker directly intends to refer to is the most brilliant man in the room, and that the speaker of **m** directly intends to refer to Henri, and

given that the most brilliant man in the room is Jacques, and given that Henry is not Jacques, **m** is true iff The False.

We have reflexivity at point *m*. At *m* we get content-M; the meaning is fixed, but not the context and other facts relevant to designation and truth. That is, even given the meaning, we need context to get official content. That is indexicality.

But we have reflexivity at every stage up to and including *m*. That is, the truth-conditions, given what has been fixed, are still conditions on the utterance itself. That is reflexivity. Indexicality is, one might say, simply the highest form of reflexivity, reflexivity exploited by meaning.

Now the relative concepts of truth-conditions at each of the stages lower than *m*—the reflexive but pre-indexical stages—can give rise to a species of content, and all of these kinds of content can be put to good use in the epistemology of language. The epistemology of language is not just a matter of understanding how people who know all there is to know about the language in which a given utterance is couched go on from that point. It needs also to deal with how languages are recognized and learned, how new words are learned, how poorly pronounced or indistinctly heard words are recognized, how ambiguities are resolved and the like. In all of these inquiries, the proper kinds of content to represent the knowledge of the agent are reflexive.

One often hears that indexicality is pervasive, that practically every bit of language has a hidden indexicality. This is not quite right. Indexicality is widespread, but much of what passes for discoveries of new instances of indexicality are actually discoveries about the utility of reflexive content at a pre-indexical level in understanding how we understand language. The importance of indexicality is really that, as the highest form of reflexivity, it is the gateway to the riches of reflexivity.

## Suggestions for Further Reading

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