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Intentions to refer¹

If something happened along the route and you had to leave your children with Bob Dole or Bill Clinton, I think you would probably leave them with Bob Dole

Bob Dole, April 15, 1996, campaigning for President.²

I am not at all sure that I'd want to leave my children with someone who talks about himself in the third person.

Ellen Goodman in the *Boston Globe* for April 18, 1996³

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² On April 15, 1996 according to a column by Ellen Goodman in the *Boston Globe* for April 18, 1996.

³ Op. cit.

Abstract

If language is action (Austin, 1961; Grice, 1967), referring to things is not something that words do, but something that people do by uttering words. According to this pragmatic view, then, a theory of reference should be grounded on an account of our acts of referring; that is, the part of communicative acts that consists in referring to individual things. In our view, referential plans involve a structure of beliefs about an object the speaker intends to talk about and of Gricean intentions to achieve various effects on the listener, in virtue of the listener's recognition of them. Among these, we distinguish the *grammatical*, *directing*, *target*, *path* and *auxiliary* intentions, and call our analysis the GDTPA structure of referential plans. In this paper we develop the motives for the theory, explain how it works, and apply it to a number of examples. Communicative acts are explained in terms of the speaker's intentions or, better said, in terms of the speaker's communicative plan: a structure of her goals, beliefs and intentions that motivates her communicative behavior. As parts of communicative acts, referential acts are subject to the same sort of analysis.

In this paper, we will argue that referential intentions are a complex type of Gricean intention. Referential acts exploit a speaker's cognitive fix on an object and aims to induce a hearer to have a cognitive fix on that object appropriate to the speaker's communicative goals. The GDTPA structure of referential plans (Korta and Perry, forthcoming) offers an account of the paradigmatic use of names, indexicals, demonstratives and (some uses) of definite descriptions as referential devices. In section 1, we present a brief historical summary of the semantic view of reference, in which we argue that there is a change in what is taken as the paradigmatic referential expression, going from proper names and definite descriptions to indexicals and demonstratives. In section 2, we introduce two of our basic theoretical tools: roles and cognitive fixes, before explaining, in section 3, how we understand the pragmatics of reference within a Gricean picture of language and communication. In section 4 we explain in some detail what we

call the ‘GDTPA structure’ of referential plans, giving various examples of paradigmatic uses of referential expressions. In section 5, we draw some conclusions.

An immediate consequence of the present picture is that understanding reference is not a matter of just identifying the object the speaker is referring to but identifying it in the manner intended, that is, with the *target* cognitive fix, that the speaker intends for the listener to have. Another consequence of the picture of language as action is that utterances, *qua* acts, have a variety of contents relative to different things that can be taken as given.

1. FROM DESCRIPTIONS AND NAMES TO INDEXICALS: A PARADIGM SHIFT IN THE PHILOSOPHY OF LANGUAGE

Singular reference has been intensely studied by philosophers during the twentieth century, and lively interest in the topic continues. The inquiry is usually regarded as a matter of semantics, the theory of meaning and truth. The key question is usually taken to be what contribution referring expressions make to the truth-conditions of the statements of which they are a part. The issue of how they fit into the speaker's plan to convey information, generate implicatures, and perform speech acts has not been center-stage.

The topic of reference has been dominated, since the beginning of the last century at least, by two paradigms, *naming* and *describing*. Due mostly to the work of Gottlob Frege (1892) and Bertrand Russell (1905), there was a sort of consensus throughout the first half of the twentieth century. Definite descriptions refer by describing objects; ordinary proper names refer by abbreviating or being associated with descriptions. The consensus began to fall apart in the 50's and 60's, and a set of ideas Howard Wettstein (1991) dubbed 'The New Theory of Reference' became widely accepted. Donnellan (1966, 1970, 1974), for example, argued that definite descriptions can be used to refer, that when they are so used they can refer to objects that do not fit the description, and that proper names do not need a backing of descriptions to pick out the object they refer to. Donnellan thought that both descriptions and names are used to make 'statements' that are individuated by the particular objects they are about, so the same statements could have been made by other means that referred to the same objects in much different ways. Donnellan emphasized the role of the speaker's intentions in securing reference, but did not develop much structure for dealing with those intentions.

David Kaplan's work on indexicals and demonstratives added a third paradigm to the mix. In his monograph *Demonstratives* (1989), he demonstrated that the techniques of formal logic, and in particular ideas from modal and intensional logic, could be applied to indexicals with illuminating results. Kaplan's work reinforced rejection of the thesis that

reference required a backing of descriptions to pick out the object referred to, without relying on intuitions about proper names of the sort to which Donnellan and Kripke had appealed.

We think Kaplan's investigation of indexicals, and his concept of character, suggest a new paradigm for thinking about singular reference. They suggest the importance of what we call 'utterance-relative roles.' Our version of Kaplan's character rule for 'I', for instance, is a generalization that quantifies over utterances: An English utterance of the word 'I' refers to the speaker of that very utterance, that is, the person who plays the role *speaker* of relative to the utterance. The role provides an identifying condition of the referent, but one that is *utterance-bound*, which is not what classical description theorists had in mind. And even though an utterance of 'I' refers rather than describes, no tag-like direct connection between the expression and the referent is involved. In the case of indexicals, utterance relative-roles are the key to understanding how things work. We think that utterance-relative roles are an important part of the story in *all* cases of reference. This is *not* to say that all kinds of singular terms are indexicals. It is rather to say that something comes out very clearly in the case of indexicals, that is also very important, if more difficult to ferret out, in the cases of names, pronouns, and descriptions.

Finding this sort of inspiration in Kaplan's work requires a bit of re-interpretation. Kaplan (1989) said he was *not* providing a theory of utterances, but a theory of 'sentences-in-context.' Utterances do not appear at all in his formal theory. But they often are mentioned in the informal remarks that motivate the theory, and it's clear that the contextual elements of agent, location, time and world, and the fundamental stipulation that the agent be in the location at the time in the world, are suggested by the utterance-relative roles of speaker, location, time and world, and the fact that the speaker of an utterance is in the location of the utterance at the time of the utterance. When he turns to developing a formal theory, Kaplan sets utterances aside because they don't fit well with his goal of developing the logic of indexicals. For one thing, utterances take time, so the premises of a spoken argument won't all occur at the same time, but for the purposes of logic we want them to occur all in the same context. For another, Kaplan wants to

consider the content of context-sentence pairs in which no utterance of the sentence by the agent at the time occurs ---hence the agent is not dubbed ‘the speaker.’

From the point of view of pragmatics, however, utterances do not get in the way; they are central to the project. Gricean intentions are intentions to bring about changes in the hearer; they are intentions to produce concrete utterances, in order to have effects on the hearer. The meanings and contents of the concrete utterance contribute to the effect. At the heart of the conversational transaction is the hearer perceiving a concrete token or event, and reasoning about its cause, that is, about the intentions that led to its production. Properties of meaning and content are relevant to intention discovery, but so are many other properties, like being aware that the speaker is attempting to amuse by telling a philosophical joke rather than pronounce a serious and profound philosophical claim.

The concept of a pair of a Kaplanian context and sentence type makes intuitive sense if we think of it as a model for an utterance in which a speaker at the time and location of the context makes use of a sentence of the type. Much the same is true of other concepts important in the development of referentialism; by our lights at least, they fit better with a theory of utterances than with a theory of sentences and other formal objects. The intentions to which Donnellan appealed in his referential-attributive distinction, are intentions that lead to particular acts of using expressions. The causal and historical chains appealed to in the referentialist account of proper names, are best thought of as connecting acts and earlier events.

In what follows we develop an account of the meaning and use of singular reference within a theory of utterances, based on the concept of utterance-relative roles, and of the pragmatics of singular reference, based on the speaker’s need to manage roles to produce the intended effect on his audience. For that purpose, first, we’ll introduce a couple of useful basic concepts: roles and cognitive fixes.

2. BASIC CONCEPTS

2.1 ROLES

We use the word ‘role’ a lot in this paper. We will talk about utterance-relative roles, speaker-relative roles, epistemic roles, pragmatic roles and so forth. So we should say a little bit about what they are.

Roles are not an addition to a metaphysics that recognizes individuals of various sorts, properties, and relations. Rather they are a way of talking about and organizing information about important relations things have to one another. They provide a way of organizing information that comes natural to humans and is reflected in many ways in language.

Roles are, first of all, important relations. If we ask Elwood, “what roles do you play in your son’s life?,” we expect an answer like, “provider, mentor, friend, disciplinarian.” If he said, “my bedroom is down the hall from his,” we might suspect he was telling us that he played no role worth mentioning in his son’s life.

Roles are often significant because they are involved in constraints, the laws, principles, rules, conventions and other regularities that provide the structure within which we perceive and plan.

Consider the following constraint:

- (1) If an x-ray y of a human arm exhibits pattern ψ , *then the person of whose arm y was taken* has a broken arm.

The constraint makes the relation between an x-ray and a person, that the former was taken of the latter’s arm, something of importance. It means that the x-ray can give us information about the person’s arm. And of course (1) is simply one of a family of constraints that x-ray technologists learn, telling what kinds of break x-rays mean, for various bones, and much else. Within the practice of using x-rays in medicine, the relation of being the person of whom an x-ray was taken is critical. Similarly with being the speaker-of, in the realm of utterances. In these cases we generalize across roles; it is the health of the patient ---that is, the person the x-ray was taken of--- that is disclosed by

the x-ray. It is the state of mind of the speaker ---that is, the speaker *of* the utterances--- that is disclosed by its linguistic properties.

A list of key roles can provide a schema for characterizing salient facts about an object. Sometimes when we are dealing with a lot of facts about numerous inter-related objects, one object will take center stage for a period of time, during which we focus on which objects stand in various relations to it, or, as we say, play various roles relative to it. Elwood is interviewing Angus, asking him a series of one-word questions: Father? Mother? Birthplace? Year of Birth? Angus can give one-word answers or one-phrase answers, specifying the objects that stand in those relations to him, or, as we say, play those roles in his life. Angus could start his answers with words like, ‘My father is...,’ and ‘My birthplace is...,’ but he really needn’t mention himself at all. His place in the facts he is using language to state doesn’t have to be indicated linguistically, because it is built into the situation. Angus’s system of representation is asymmetrical; the objects that play the key relations to him get named, but he makes it into the propositions he asserts just by his role in the conversation.

As Elwood records the information he may also use an asymmetrical system of representation. Angus’s name is written in on the top of a card, perhaps, on which words for the various important roles Elwood is to query him about are printed; Elwood fills them in, in response to Angus’s answers. For another example, think of a party invitation. The invitation as a whole represents the party; on the invitation the objects (broadly speaking) that fill various roles relative to the party are linguistically identified: time-of, place-of, hosts-of, purpose-of, and so forth.

Handling relational information with roles is useful when one object is the focus of attention and thus a participant in all the relational facts being discussed, and where due to the situation, the way information is being obtained, communicated, or used, there is no need to re-identify him or her or it. During Angus’s interview, he is the one Elwood is asking about. We know that all the information given on an invitation is for the same party, the party the invitation is an invitation for.

A particularly important example of organizing information by roles is our ordinary way of perceiving the world in those uncomplicated cases where neither communication, long-term memory, nor long-term intentions are involved; we'll call this 'the natural stance.' Here the perceiver/agent is the fixed object, the 'index'. We look out on the world and see objects to the left, to the right, above and below; we hear things to the left and to the right, near at hand and in the distance; we feel the heft of things we hold in our right or left hands, and the taste of things in our mouth.

Often the occupants of different roles are known to be the same, in virtue of the common index and the *architecture* of the situation. The stuff I put in my mouth is the stuff I taste in my mouth; the things I hold in front of me are the things I see in front of me. The car I slow by stepping on the brakes is the same one I steer by turning the wheel, and the same one I gather information about by looking through the windshield.⁴

2.2 COGNITIVE FIXES

Humans are blessed with a rich variety of perceptual abilities, which allow them to find out things about objects that stand in certain relations to them; that is, play certain roles in their lives. I can find out the color and shape of the object I am looking at; I can discover the hardness and weight of the object I hold in my hand, and so forth. Such objects, we will say, play *direct epistemic roles* in our lives; that is, they are related to us, on a given occasion, in such a way that we can perceive them to have various properties.

Often the objects that play direct epistemic roles in our lives are also ones that play *direct pragmatic roles* in our lives. You see an apple; it looks like it is ripe, but perhaps it is overripe and mushy; you pick it up, and squeeze it a little to make sure it is firm; you put it in your mouth and bite off a piece and chew it; you taste it, and on the basis of what it tastes like, go ahead and swallow it or spit it out.

In thinking about this we find a concept and a term from Howard Wettstein useful: 'cognitive fix.' One's *cognitive fix* on an object is how one thinks of it, in a broad sense of

⁴ The paper is co-authored, hence there really is no referent for 'I.' However, we find the first-person singular too effective for presenting examples to give it up.

‘thinking.’ We like the phrase because it is rather vague, and not tied, like, say, ‘mode of presentation’ to a particular theory. Still, we will gradually develop a theory of cognitive fixes, and tie Wettstein’s term to our own theory. We think of cognitive fixes on an object as involving epistemic roles, pragmatic roles, or both. Cognitive fixes may be perceptual, in which case they will be expressed naturally with demonstrative phrases: ‘that man,’ ‘this computer.’ They may involve the roles the objects play in conversation, in which case they will be expressed naturally with the appropriate indexicals: ‘I,’ ‘you.’ Often a mere name seems to do the trick, both in thinking and speaking; we call these nominal cognitive fixes. Sometimes we think of things in terms of uniquely identifying conditions; we have a descriptive cognitive fix, and descriptions may be the appropriate expressions to use. We think of singular terms as devices for providing hearers with cognitive fixes on objects, that are appropriate for the communicate aims of the speaker.

Here the apple plays a number of roles in your life: the thing you see, the thing in front of you that you can pick up by moving in a certain way; the thing in your hands; the thing in your mouth; the thing providing certain taste sensations, and so forth. All of these roles are *linked*; that is, one thing plays all of them. The job of the agent’s buffer is to keep track of all these linkages. But there may also be nested roles to keep track of. The apple may be the very one that your office-mate took out of her lunch bag before stepping away for a moment; by eating the apple, you will have an effect on her, perhaps making her angry. And perhaps she has the boss’s ear, so the apple is the one that by eating you can anger your office-mate, cause bad things to be said about you to your boss, and get yourself fired.

Signs are objects that play a direct epistemic role in one’s life, whose perceivable properties are related in reliable ways to the properties of other objects, to which it is related. You see the paw print along the trail; on the basis of the pattern and size of the print, you learn that it was caused by a fox. The fox plays a complex, indirect epistemic role in your life; it is the animal that caused the print you are perceiving, and hence the animal you learn about by examining the print.

Nature provides us with many signs; that is, certain events carry information about other objects (or about themselves at other times) in virtue of the way nature made them and the way the world works. Other objects carry information because of structures created by humans, which harness natural information for various purposes. A certain characteristic twitch at the end of your fishing rod tells you that there is, or may be, a fish on the hook tied to the end of the line that feeds into the rod. A ringing doorbell tells you that someone is on the porch.

In interpreting a sign, one basically asks what the rest of the world must be like, for the object perceived to be as it is, or for the event or state perceived to have occurred. As in the case of the effects of one's acts, one doesn't worry about everything; one has in mind certain structures, certain objects that are or might be related to the object seen, and certain ways the world works. I see a paw print of a certain shape and size; I know that given the way the world works there is some animal that made it, and that given the shape and size it was a fox. Interpreting signs is a manner of inferring what the rest of the world has to be like (or probably is like, or may be like), given various structures and constraints, for the sign to have occurred.

So, typically, the interpretation of a sign involves perceiving an object or event as having certain properties, and inferring from those properties what the rest of the world must be like. Paradigmatically, this means inferring that various other objects related to the sign in certain ways, have or lack various properties.

Now we are well equipped to introduce our view on referential acts, which we think fits well in a Gricean picture of reference.

3. GRICEAN REFERENCE

Our terminology differs a bit from Grice's. He distinguishes between natural and non-natural meaning. What he calls non-natural meaning involves an agent doing something in order to change the beliefs, or otherwise affect the cognitions, of a hearer, in virtue of the hearer's recognizing the speaker's intention to affect this change. Language use is a case of non-natural meaning, but not the only case.

According to Grice, if we are talking about natural meaning, ‘X means that S’ entails that S. This view of Grice’s is connected with the use of ‘information’ by Dretske and others, including one of the present authors in previous writings, to imply truth (Dretske 1981, Barwise & Perry 1983). We adopt a looser view in this book. (We use ‘information’ in the way Israel and Perry use ‘informational content’ (Israel & Perry 1990, 1991)). When a bird can see an unobstructed view of an object, it takes this as a sign that it can fly directly to the object. In the modern world, this leads many birds to their death, as they fly into windows and plate glass doors on the sides of buildings. We regard this as natural meaning; the bird is responding to a natural sign, but one that is not infallible. The importance of this may be mostly terminological; it allows us to use terms like ‘natural sign,’ ‘natural meaning’ and ‘information’ rather than circumlocutions. But natural meaning, in our weaker sense, is the natural concept to explain how the interpretation of phenomena as signs plays an important evolutionary role; as long as the tendencies involved in interpreting signs lead to good results in a sufficient proportion of cases, the trait of doing so will propagate.

Interpreting the intentions and other cognitions of other people is a natural, evolved ability of humans. From this point of view, there is nothing non-natural about this ability, and the development of language as an extension of it is also a part of nature. We draw approximately the same line as Grice, but we see it as a line between signs that are intentionally produced to be the signs of intentions, and other signs.

Now consider an example of Herb Clark’s (Clark 1992, 1996). A person stands in line at the checkout counter of a grocery store. When his turn comes, he takes a sack of potatoes from his cart and puts them on the counter. The checker will take this as a sign that the shopper wants to purchase the item, and will proceed to ring it up with the expectation of getting paid. This act has at least some of the features of Gricean communication. The shopper wants the clerk to ring up the sack of potatoes. He probably has no great interest in why the clerk does so, but he at least implicitly expects that part of the motivation will be realizing that the shopper wants to buy them. If he doesn’t want to buy them, but merely learn the price of the potatoes, he’ll have to say something.

It is natural to find a reference-predication structure in this episode, even though no language is involved. The shopper conveys his intention about a certain item, the sack of potatoes. He conveys that he wishes to buy it. If he had held the sack up and asked, “How much?” he would have conveyed his desire to have the clerk tell him the cost of the item. The act of putting the sack of potatoes on the counter is a primitive act of reference. The fact that he put the sack on the counter shows that the desire he wishes to convey concerns the potatoes; the fact that he placed it on the counter and said nothing, conveys his desire to buy them. Different aspects of the shopper’s act convey different aspects of the desire he wishes to convey.

Clark interprets the act of putting the potatoes on the counter as a demonstration. Perhaps cigarettes are not available for the shopper to put in his cart, but displayed behind the checker, who is not supposed to sell them to those under sixteen. The shopper could convey the same information about a pack of cigarettes that he did about the sack of potatoes by pointing to it. Or he could say, “That pack of Camels, please.”

The examples have a common structure. The shopper has a desire about a certain item, to purchase it. He wants to convey to the clerk which item it is he wants to purchase. He does so by bringing it about that the item plays certain roles in the clerk’s life. That is, he draws the clerk’s attention to the item, in such a way that the clerk will realize it is the item the shopper wishes to buy, and will have a cognitive fix on the item that enables him to take the desired action towards the item: to ring it up. The act of reference is the act of getting the referent to play a certain role in the hearer’s life, in such a way that the hearer realizes that it is the object that the shopper desires to buy, and has a cognitive fix on the item that permits him to do what the shopper wants him to do with it.

Now suppose that you are eating dinner with a group of people, and you want the salt, which you can’t reach. You say to the person next to you, who can reach the shaker,

(2) I’d like some salt, please.

Here you are conveying to your hearer that a certain person would like the salt. The predicate ‘like some salt’ conveys what the person, to whom you refer, would like. The word ‘I’ conveys which person that is, but it does more than that. By producing your utterance, so that it is heard, you provide the hearer a succession of cognitive fixes on the referent, that is, the person of whom wanting the salt is being predicated. It is (i) the person who the speaker is referring to. Your choice of ‘I’ indicates that that person is (ii) the speaker of the utterance. In this particular situation, the hearer can see who the speaker is: (iii) the person next to him. This puts him in a position to carry out the implicit request, and pass you the salt. Here again your intent is to identify the subject, the person who wants the salt, for the hearer in such a way that the hearer can fulfill your goal in speaking, and pass you the salt.

Suppose now that it is not you who wants the salt, but the woman sitting across from you and your hearer; she is looking at the salt shaker, but is too shy to say anything. You say,

(3) She’d like the salt,

with a glance across the table. Perhaps you nudge the hearer, so that he will turn towards you, and follow your eye gaze and subtle nod towards the woman. Again, you have a referential plan. You want to convey the belief that a certain person wants the salt. The speaker will understand your sentence, and realize that the person referred to by the utterance he hears wants the salt. Other things being equal, he will take it that that person is a female. He will follow your eye gaze and realize that the person you are referring to is the person seated across from you, someone he is in a position to pass the salt to.

These cases illustrate one of our basic theses. The pragmatic aspects of singular reference are largely a matter of role-management. We refer to objects in the ways that we do in order to provide our hearers with an *apt cognitive fix* on the people or things or places we want to convey beliefs or other attitudes about, that is, one enables them to take whatever further actions we would like them to carry out with respect to this object.

Suppose now the woman across from you is the movie star Julia Roberts. You say,

(4) Julia Roberts would like the salt.

Your neighbor hears the utterance, and has an initial fix on the person of whom wanting the salt is predicated: (i) the person the speaker of the utterance I hear refers to. He will realize that she is named ‘Julia Roberts,’ a person he already has a notion of, and can think of as: (ii) Julia Roberts. His is a notion that includes a conception of what she looks like. He will look around the table until he recognizes her. He will then have a cognitive fix on the person who needs the salt as: (iii) the person sitting diagonally across from him, and will pass her the salt. Again, your plan to get Julia Roberts the salt involved providing a path the hearer could take, from having a cognitive fix on the salt deprived person merely as the subject of the utterance he is hearing, to being the person across from him, an apt cognitive fix that enables him to get the salt to her.

Perhaps the person sitting next to you is a true intellectual, who never sees movies except documentaries; he has barely heard of Julia Roberts, and has no idea what she looks like. Then your plan will fail. Your plan puts a certain cognitive burden on the hearer; in order to follow the path you have in mind, he has to have a notion of Julia Roberts sufficiently detailed that he can recognize her. He may come to believe that Julia Roberts wants the salt, but can’t go on from there.

Suppose Bob Dole is at the dinner too. Bob Dole, the Republican candidate for President in 1996, has a habit of referring to himself in the third person. He says to the person next to him,

(5) Bob Dole would like some salt.

This may not work; he isn’t as well-known as he once was. If instead he had said “I’d like the salt,” it would have worked. His choice of words puts an unnecessary cognitive burden on the hearer. It also sounds a bit pretentious --- this is probably what Ellen Goodman was reacting to in our opening quote. His plan assumes that people will have a rich enough notion of Bob Dole to recognize him, and that’s the sort of assumption most ordinary folk won’t make, when there is a simpler way of getting the hearer to have the appropriate cognitive fix, by using the first person.

Perhaps it's 1996, and Bob Dole has been talking politics with you, who have been sitting next to him at a dinner party. As he leaves he says, "I hope you vote for me." To vote for someone, you have to know his or her name. He is putting the same cognitive burden you as in the case above. If he is cautious, and thinks the dinner conversation has made a good impression on you, he will say "I hope you vote for Bob Dole." Or, more likely, he will say, "I am Bob Dole. I hope you vote for me."

He clearly adds something to the conversation by saying "I am Bob Dole" that he wouldn't have added by merely saying "Bob Dole is Bob Dole," or "I am I." He assumes that the hearer has a notion of Bob Dole, rich enough to include the information that Dole is a candidate. He assumes that the hearer has a notion of the person he has been talking to, which includes that he is an intelligent and affable fellow. The effect Dole wishes to achieve is getting these notions merged, so that the hearer has a single notion that include being a candidate named 'Bob Dole,' being the person he is talking to, and being affable and intelligent. Dole's remark gives you two cognitive fixes on one person, as the person speaking to you, and as the person you think of as 'Bob Dole.'

Perhaps it hasn't occurred to Bob Dole that he hasn't been recognized, and he simply says "I hope you vote for me." Later you tell a friend about this puzzling remark. "I was talking to a man at dinner. When he left he said he wanted me to vote for him. I wonder what he is running for." "That man is running for President," he tells you. "He is Bob Dole." Your friend plans that you will recognize that the person he is referring to with 'that man' is the very one whose behavior at dinner motivated your remark. He is building on a fix you already have on the man, in order to get the result that you merge your notion of the man you talked to, with your Bob Dole notion.

These cases all illustrate our basic thesis that reference involves role-management. The thesis has implications for the semantics of the kinds of expressions we use in singular reference: demonstratives and demonstrative phrases, indexicals, personal pronouns, names, and definite descriptions. The meanings of these expressions are what enables utterances of them to have the role-management uses that they do, and the semantics of these expressions must explain how that is.

4. THE GDTPA STRUCTURE OF REFERENTIAL PLANS

In our view, reference involves a complex of Gricean intentions (intentions aimed at being recognized by the hearer) or *plans*: structures of intentions and beliefs. We distinguish five aspects of such plans, which we call the grammatical, directing, target, path and auxiliary intentions, and refer to the whole as the GDTPA structure of referential plans.

In a paradigm case the speaker S will have a belief, which we'll call *the motivating belief*, with a certain content; he intends that the hearer H will come to have a belief with the same content, in virtue of recognizing S's intention to have H do so. This intention will be in the service of further intentions S has for H; inferences, or other actions, S wants H to perform, or refrain from performing.

When reference is involved, the motivating belief will be about (at least) one thing X; the belief's content will be a singular proposition about X, to the effect that X meets a certain condition. As part of instilling the belief in H, S intends to get H to think about X, to have a cognitive fix on X, and recognize S's intention to have H believe that X meets the condition. S will intend for H to think about X as the object that plays a role in H's own life, the *target role*, one that is suited to S's further intentions for H's actions and inferences. S intends to accomplish this by exploiting a role X plays in S's own life, the *exploited role*, through use of an expression whose meaning suits it for helping to identify this role. The expression will be part of a sentence, which identifies the condition X must meet for the utterance to be true. H will infer from the fact that X plays the exploited role in S's life, that X plays a role in H's own life, and will think of X in a way suited to thinking of objects that play that role.

In such a paradigm case, there will be a singular term E that is part of the sentence S utters, so that S intends to refer to X by uttering E. This intention will be part of a referential plan that involves the means of reference, and the effects of reference. This is a plan about E, X, the hearer H, an exploited role, and a target role.

Where the content of S's motivating belief for uttering "F(E)" is that C(X):

- S believes that the sentence ‘...E...’ predicates C of the object identified by E, and intends to assert of that object that it meets C (the grammatical intention);
- S believes that X plays the exploited role in S’s life, and that the meaning of E makes uttering E a way of identifying the object that plays that role, and S intends, by uttering E, to get H to recognize that he intends to identify the object that plays that role (the directing intention);
- S believes that X plays the target role in H’s life, and that by thinking of X in that way, and believing that X meets condition C, H will be likely to perform the further inferences and actions S has in mind, and S intends for H to recognize that S intends for him to think of X in that way (the target intention);
- S believes that H can infer from the fact that X plays the exploited role in S’s life, that it plays the target role in H’s life, and intends that H recognizes that S intends for H to make that inference (the path intention);

We call this the GDTPA structure of paradigm referential plans. It is also useful to note that S may think that by using E to identify X, certain further information will be conveyed to H about X; the intention to convey this information we call the *auxiliary intention*. We’ll explain the GDTPA structure a bit more, and then apply it to a range of examples.

4.1. THE GRAMMATICAL INTENTION

When we predicate a property of an object, or a relation between objects, or some more complex condition, in the usual way by uttering a declarative sentence, the various argument roles involved in the condition are grammatically specified. In English this is mainly done by word order; in other languages case markings carry the bulk of this information. The predicate ‘kills’ expresses a relation between a killer, a thing killed, and a time of the killing. To understand S’s utterances of such sentences as ‘Ruby killed Oswald’ ‘Oswald was killed by Ruby’ or phrases like ‘Ruby’s killing of Oswald,’

‘Oswald’s killing by Ruby,’ ‘the fact that Ruby killed Oswald’ H needs not only to recognize that it is killing, Ruby and Oswald who are involved in the belief that S wishes to impart, but the roles they play in the killing; the word order combined with the sort of construction used ---active or passive--- specifies that Ruby in the killer and Oswald the victim. We will take the intention on the speaker’s part to convey this information, the *grammatical intention*, largely for granted here, without meaning to suggest it is unimportant, semantically trivial, or pragmatically insignificant.

4.2. THE DIRECTING INTENTION

In order to impart his motivating belief to H in an apt way, S has to refer to X. He might, as in Clark’s case of the shopper and the clerk, do so by putting X directly in H’s line of vision, without saying anything. Or perhaps X is a person who stumbles out of a bar and falls at the feet of S and H. “Drunk,” S says; there is no need to get H thinking about X, since he no doubt already is. But we’ll focus on cases in which S refers, and uses language to do so.

Our thesis is that the meanings of expressions suit them for use in referring to things that play certain epistemic or pragmatic roles in one’s life ---that is, things on which one has one kind or other of cognitive fix. In choosing his referring expressions, S’s goal is not merely to refer to the object his motivating belief is about, but to refer in a way that is apt for bringing about the right sort of understanding on the part of H. And for aiming at that target S exploits his own cognitive fix or fixes on X. S may have choices here, for he may have (or think he has) different cognitive fixes on the same thing. The *directing intention* is the intention to refer to the object S’s motivating belief is about, by using an expression, or some other intention-indicating device, or a combination, that is associated, naturally or conventionally, with some cognitive fix one has on that object one’s motivating belief is about. For example, S may use the word ‘I’ to refer to himself; the word ‘I’ is suited for that role by its meaning. S may use the word ‘that man’ to refer to a man he sees; the phrase ‘that man’ is suited by its meaning for referring to a man with that role in the speaker’s life. S may use ‘you’ to refer to the person he is talking to; the word

'you' is suited by its meaning to refer to that person. These are directing intentions. In each case, S may have further intentions. He may, by using 'you' and referring to the addressee, intend to refer to Elwood Fritchey, and by referring to Elwood Fritchey, intend to refer to the next Dean of the College. Those are not directing intentions.

Directing intentions are *determinative*. That is, the speaker has referred to whoever or whatever plays the role involved in his directing intention. The further intentions are not determinative. Suppose S thinks he is talking to Elwood Fritchey, but is instead talking to Elwood's twin Christopher. When he says 'you' he has referred to Christopher, not Elwood.

To the question, "Does intention determine reference?," our theory says "Yes and No." Basically, the speaker has authority over which role he exploits. But he does not have authority over who or what actually plays that role; if his beliefs about that are wrong, he may refer to a thing to which he does not intend to refer. When we depart from paradigm cases, and consider ones in which the words chosen are inappropriate for the role the speaker intends to exploit, or when the speaker is misunderstood by careful hearers, things quickly get complicated. Basically, the speaker gets to choose which role he exploits, but then facts take over, and if the speaker's beliefs about those facts are wrong, he may not refer to the thing he intends to; but we won't much look at these complications here.

4.3. THE TARGET INTENTION

If S is at all adept at using language, he will not intend to get H to have a belief about some object, but will also have at least a vague intention of the type of cognitive fix on that object that H should have, in order to be in a position to have whatever further thoughts and actions S has in mind for him; that is, an apt cognitive fix. This is the *target intention*. In the case of passing the salt, the target intention is that the hearer think of the person referred to, the one who wants the salt, in some way that will afford passing the salt to that person. In the case of giving someone information about Cicero, say, to use on

an exam, one will likely want the cognitive fix to be via the name that will be used to refer to Cicero.

4.4. THE PATH INTENTION

Moreover, if S is an adept speaker, he will have in mind some *path*, some reasoning, that will lead H from realizing what role the referent has in the speaker's life, that is, from grasping the direction intention, to the target intention, that is to the cognitive fix S wants H to have. When I say, "I'd like the salt," I expect you to realize that the person who wants the salt is the speaker of the utterance you hear, and so the person you see across from you; this is the target cognitive fix, the one that will enable to you pass the salt to the right person.

4.5 EXAMPLES

S and H are standing on the east side of Canal Street, just south of Adams, in Chicago. Union Station rises on either side of Canal Street, the main part of the station being underground, running under Canal Street, and connecting the parts above ground. S believes that H's train leaves from Union Station. He intends to impart that information to H, with the goal that H will walk into the nearest part of Union Station. He holds this belief via his notion of Union Station, usually detached, but now connected to perception. In this situation, there are (at least) three ways S could refer to Union Station, exploiting three different cognitive fixes he has on it. He could just say

(6) Your train leaves from Union Station.

But in order to meet S's goal, H would have to recognize which building was Union Station, and S doesn't think he does. He could point to the part of Union Station that rises on the other side of Canal Street, and say,

(7) Your train leaves from that station.

But that would doubtless lead to H's unnecessarily crossing busy Canal Street. Or S could point to the near part of Union Station, that rises on the east side of Canal Street, a short

distance from where S and H are talking. This is clearly the way of referring that is most likely to lead to the effect on H that S wants; that is, to believe of Union Station, thought of as the building he sees on the same side of the street, that it is the place he needs to go to catch his train.

S's directing intention is to refer to the building he sees as he looks east, by using the demonstrative phrase 'that station.' This fixes the referent. This creates the possibility of a failing to refer to the object he intends to refer to, even though intentions fix reference. Suppose S is in error. Things have changed at Union Station. The above-ground part of structure that used to be the eastern wing of Union Station has been converted to a posh prison for Illinois politicians. Union Station is now just the structure west of Canal Street, plus the part under the street. S point to the structure on the east side, and says "Your train leaves from that station." In this case, even though S's utterance was motivated by a belief about Union Station, and the primary referential intention was to refer to Union Station, he has not referred to Union Station, but to the Illinois Politicians' Prison.

In the original example, S, an adept speaker, chose the way of referring to Union Station that would most likely lead H to have an apt cognitive fix on the station. Here we have role-transfer; the kind of cognitive fix S intended for H to have was basically the same sort that was involved in S's directing intention, that is, a perceptual fix. That path that S set up for H to follow was short and direct, basically from 'the station S is looking at' to 'the station I am looking at.' S's referential plan, then, is a complex intention to refer to an object, Union Station, in a way that will induce H to recognize S's directing intention, and then following the *path* to a perceptual cognitive fix on the same building ---the *target intention*.

But paths are not always simple and direct. S tells H,

(8) Mr. Muggs is wanted on the phone ---would you tell him?

Perhaps S answered the phone, at a party, and someone asked for Muggs, whom S already knows. He has the sort of cognitive fix on Muggs that one has in such a situation; he isn't

seeing or hearing Muggs, just thinking about him in the way one thinks about someone one knows, via a detached notion. But he wants H to have a perceptual fix on Muggs, for this is required to approach him and give him the message. S's plan puts a cognitive burden on H, to know, or be able to find out what Muggs looks like.

Or perhaps S is a Professor in a large class and Muggs is a student, whose name S does not know. Muggs asks him if he can have an extension on his paper, and S agrees. He tells his teaching assistant H, "Make a note that he gets an extension." S is assuming the assistant will know the student's name, for this is required to make a useful note. S's plan, in some detail, is:

- H hears my utterance, and parses it;
- H has the fix: the person the speaker of the utterance refers to with 'he';
- H realizes that I, the Professor, am the speaker;
- H has the fix: the person the Professor is referring to with 'he';
- H witnessed my conversation with the student, and realizes that he is who I have in mind;
- H has the fix: the student the Professor was just talking to;
- H is a responsible assistant and knows the names of his students;
- H has a fix on the student via the student's name;
- H will be in a position to make a useful note.

The pronoun 'he' provides auxiliary information about the referent, that he is a male. It may be misinformation. In this case, the professor may not have realized that the student he was talking to was a female; it's not always easy to tell. Or the professor may be a fossil who thinks that girls should dress like girls and boys like boys; he was very aware that the student was a girl, but signaled his disapproval to the teaching assistant by using the wrong pronoun. Or maybe his native language is Basque, which doesn't have a gendered pronoun system, and he always says 'he' rather than think about which English pronoun to use. In this case, it really doesn't matter. The teaching assistant will know to whom he is referring, and disregard the misinformation.

Sometimes it does matter. Perhaps two students have been making requests of the professor. He tells the teaching assistant, “Give *her* an extension, give *him* an incomplete.” He is counting on the pronouns to distinguish between the two students, and if he gets it wrong, the wrong students may end up with the incomplete and the extension. This additional information, or misinformation as the case may be, does not affect who or what is being referred to, nor is it asserted of the referent. We say it is *projected*; but we won’t have more to say about this here.⁵

5. CONCLUSION

If we are right, the pragmatic aspects of singular reference are largely a matter of role-management, and, in that sense, indexicals and demonstratives or more illuminating than the traditional paradigms, proper names and definite descriptions.

This doesn’t mean that we’re giving up the referentialist view on singular reference, according to which the contribution of the subutterance of the singular term to the proposition expressed (or what is said) by the whole utterance is a particular object. We are essentially referentialist to that extent. But we are critical referentialists, because we think that the *way* that a thing is referred to, and not just the identity of the referent, is required to deal with traditional problems of cognitive significance. Of course if one cannot tell the difference between co-referential terms in one’s theory, one will have little hope of explaining the difference that using one term over another might have, and little hope of explaining a speaker’s reasons for choosing one rather than the other.

We refer to objects in the ways that we do in order to provide our hearers with an *apt* cognitive fix on the people or things or places we want to convey beliefs or other attitudes about, that is, one enables them to take whatever further actions we would like them to carry out with respect to this object. We hope that our GDTPA structure of speaker’s plan makes clear the complexity of our referential intentions, and the relevance of roles and cognitive fixes in that respect.

⁵ But see our book *Critical Pragmatics* (forthcoming) specially chapter 8 on descriptions.

Theories in the philosophy of action have long recognized the multi-level structure of action. An agent moves in certain circumstances, and the combination of the nature of the movement, and the nature of the circumstances, produces certain results, given the way the world works. I move my arm in a certain way unthinkingly, and because of the circumstances I'm in, I knock a cup to the floor. By knocking the cup to the floor, I cause it to break. By causing it to break, I make its owner angry. And so forth. The action is naturally viewed as having multiple informational contents, depending of the facts we take as given. In contrast, theories of the content of language and propositional attitudes are usually "mono-propositional." That is, there is a single proposition that is thought to capture the content of a belief, desire, or assertion. We contend that utterances, *qua* acts, also have a plurality of contents, that derive from facts about the speaker's plan, linguistic conventions and the circumstances of utterance, and which of them are taken as given. Our analysis of referential acts is, hopefully, a step towards clarifying how that works.

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