



I L L I N O I S

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Large-scale Digitization Project, 2007.

370.152

T2261

**T
E
C
H
N
I
C
A
L

R
E
P
O
R
T
S**

Technical Report No. 52

**TWO TYPES OF CONVENTION IN
INDIRECT SPEECH ACTS**

J. L. Morgan

University of Illinois at Urbana-Champaign

July 1977

Center for the Study of Reading

THE LIBRARY OF THE

OCT 7 1981

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN
1005 West Nevada Street
Urbana, Illinois 61801

BOLT BERANEK AND NEWMAN INC.
50 Moulton Street
Cambridge, Massachusetts 02138

Technical Report No. 52

TWO TYPES OF CONVENTION IN
INDIRECT SPEECH ACTS

J. L. Morgan

University of Illinois at Urbana-Champaign

July 1977

University of Illinois
at Urbana-Champaign
1005 West Nevada Street
Urbana, Illinois 61801

Bolt Beranek and Newman Inc.
50 Moulton Street
Cambridge, Massachusetts 02138

The research reported herein was supported in part by the National Institute of Education under Contract No. MS-NIE-C-400-76-0116 and Grant No. HEW-NIE-G-74-0007.

This page is intentionally blank.

Introduction

In this paper I want to take up the problem of "indirect speech acts", as exemplified by the infamous case, "can you pass the salt?", with the goal of reaching an understanding of its apparently paradoxical nature. In considering the competing analyses of Gordon and Lakoff (1975), Sadock (1974) and Searle (1975), my initial inclination was to reject Searle's discussion as missing the point, in favor of one of the other two. But I have gradually come around to Searle's position; or perhaps I have only constructed a misinterpretation of it that appeals to me. At any rate, in this paper, I will be attempting an elaboration of my interpretation of Searle's tantalizingly brief remarks. I will argue for an account of "can you pass the salt" and similar expressions which treats them as conventional but not idioms, by establishing the necessity for distinguishing two kinds of language-related conventions: conventions of language, that jointly give rise to the literal meanings of sentences; and conventions about language, that govern the use of sentences, with their literal meanings, for certain purposes. I will suggest, in short, that "can you pass the salt", is indeed conventional in some sense, but not an idiom; rather it is conventional to use it (with its literal meaning) for certain purposes. Part of my task will be to dissipate the fog of initial implausibility by establishing on independent grounds the need for this kind of convention about language.

I hope to end up with a framework that gives a reasonable picture of the diachronic transition from indirectly conveyed to literal meaning, and allows

the possibility of intermediate points on the natural-conventional scale. I will also argue, contra Searle, for the notion "conversational postulate", which I have recently argued against in Morgan (1977).

I will proceed as follows: first I will briefly review the nature of the problem involved in expressions like "can you pass the salt." This will be followed by a discussion of the role of pragmatics in linguistics, leading up to a discussion of "natural" as opposed to "conventional," then pointing out the difference between two kinds of linguistic convention. I will then offer a schema for describing the less familiar kind of convention, and an account of "can you pass the salt" in terms of this kind of convention. I will end with a number of examples of various sub-types of conventionalization.

Statement of the Problem

Why are expressions like "can you pass the salt" a problem? Why do I say this expression is apparently paradoxical? The basic fact is this: that one can use a sentence like "can you pass the salt" to convey a request, though it seems at first glance we would not want to consider the literal meaning of the sentence to be that of a request for the salt.

Grice's (1975) notion of "conversational implicature" and accompanying maxims offer a potential explanation for this fact (cf. Gordon and Lakoff (1975)); but how can we be sure this is the correct analysis? In fact there are two ways to go about giving an account of such cases, and one can construct a case for each that has a certain amount of initial plausibility. The first way, which I will call the "natural" approach, is to argue that even when I make a

request in uttering "can you pass the salt," I am using the sentence with its literal meaning of a yes-no question; the fact that I can manage to convey what amounts to a request by asking this yes-no question, is not a matter of my knowledge of English, but a consequence of Grice's maxims, which are, roughly, a set of rules for inferring the intentions behind speech acts, or from the speaker's viewpoint, for selecting one's utterances so as to convey one's intentions, by exploiting the maxims. Given that the need for Grice's maxims has been clearly demonstrated anyway, and that we can show how the request nature of "can you pass the salt" is "calculable," that is, it can be derived from Grice's maxims, then Occam's razor dictates that we take this as the correct analysis, lacking strong evidence to the contrary. Further support might be derived from the admittedly vague intuition that it "just feels like" one means it in its literal meaning even when using it to make a request, a point that gains some support from the frequently noted fact that the class of possible responses to "can you..." is just about what one would expect from its literal meaning.

Or one can take a conventional approach, saying that "can you pass the salt" is an idiom that wears its history on its sleeve, as idioms often do, so that what the expression formerly had as implicature, it now has as literal meaning. As a consequence, "can you pass the salt" is now genuinely ambiguous between the literal meaning of a yes-no question and the literal meaning of a request. One can support such an analysis by observing first that "can you pass the salt" has some of the grammatical marks of direct requests--the possibility of pre-verbal please, for instance--that not all cases of genuinely indirect requests have; second that although "can you pass the salt" is indeed calculable, it is not in fact calculated; rather, one gets the point more or less directly, without any inferential processing, which is

what we would expect if it has become an idiom, thereby part of knowledge of language; third, that "can you pass the salt" is intuitively more direct than its apparent close paraphrases, like "are you able to-----" and "is it possible for you to-----", which do not have the grammatical properties of direct requests like pre-verbal please, but can, nonetheless, be used to convey indirect requests; fourth, that this kind of conventionalization of indirectly conveyed meaning is in fact clearly attested, which at least increases the plausibility of the idiom approach.

For instance, as Robin Lakoff (1973) has observed, the typical history of euphemisms, expressions the speaker uses to merely hint at what he wants to avoid mentioning directly, is that they eventually take on as literal meaning the very thing they were originally used to avoid. One can see a clear example of this in the expression "to go to the bathroom", which obviously originated as a euphemism, having a literal meaning like "to transport oneself to the bathing room", with the conversational implicature that one actually went there with the purpose of excretion, but at the same time avoiding direct mention of such revolting matters. But now, in at least some American dialects, the implicature has been conventionalized as literal meaning, so that "go to the bathroom" is now an idiom with the meaning "to excrete"; speakers of these dialects thus can say, non-metaphorically, "the dog went to the bathroom on the living room rug". Cole (1975) presents a persuasive discussion of another kind of grammaticalization of implicature, focussing in particular on the grammaticalization of implicature as the most reasonable treatment of the expression let's.

Then we have the apparent paradox that the expression "can you..." is in some ways natural, in some ways conventional. How can we have both at the same time? I will argue that the answer lies in the following quotation from Searle:

It is by now, I hope, uncontroversial that there is a distinction to be made between meaning and use, but what is less generally recognized is that there can be conventions of usage that are not meaning conventions. (p. 76)

But before exploring the idea in this quotation, I need to discuss convention and pragmatics a bit.

Pragmatics and Linguistics

To decide between the "natural" and "conventional" approaches, it is necessary to make clear what these terms mean. To do this, I must begin with a general discussion of pragmatics. As far as I know the term was until recently applied to the analysis of expressions like indexicals, whose meaning can only be fully specified relative to context of utterance. Recently, though, the term has been extended to cover matters like Grice's "conversational implicature", that are not part of the literal meaning of sentences. As a result, "pragmatics" may be in danger of becoming a useless catch-all term. But there may be a grain of truth in this lumping together of conversational implicature with the interpretation of indexicals and the like. I think a moment's reflection will show that there is a natural connection, and that the problem of indexicals is naturally subsumed under the problem of the interpretation of intentions behind use of linguistic expressions. If we mean that a pragmatic treatment of deictic terms like here, now, and demonstrative

pronouns should include a recapitulation of the principles we use in determining referents for these terms, then it is clear that it is the same sort of problem, depending on such matters of context as our interpretation of the speaker's goals in the conversation, his intention, interests, and so on. For example, imagine a jar of sugar with a glass lid, on which the word sugar is painted in blue; and imagine that someone puts her fingertips just under the letter u of the word sugar and says "what's that?" Our answer might be, among other things, "the letter U", the word sugar", "paint", "blue paint", "blue", "English", "a lid", "glass", "a glass lid", "a jar", "sugar", "a jar of sugar", and so on, depending on our interpretation of the person's interests--is she learning English, the use of seasoning, physics, or what? It's clear that there is a natural connection between an account of indexical expressions, and the interpretation of intentions. But there is occasional confusion, it seems to me, on the nature of pragmatic principles, so a brief discussion of their nature is in order.

A central question for the study of language is this: How do people understand what's said to them? Linguistics must eventually provide at least a partial answer to this question, by saying how much and in what ways knowledge of language per se contributes to the ability to comprehend. It has become fairly obvious in the past few years that a good part of comprehension must be ascribed not to the rules of language that assign meanings to sentences as a function of the meanings of the parts, but to our ability to somehow infer what the speaker's intentions were in saying what he said, with the literal meaning it has. But this ability is not, in general, a strictly linguistic

ability; in fact I think often not a linguistic ability at all, but the application to linguistic problems of very general common sense strategies for inferring intentions behind all kinds of acts, which may or may not be different in different cultures. And to call them rules of conversation is misleading in the same way that it is misleading to refer to rules of driving as rules of getting to the grocery store and back. It should be clear upon reflection that, unless we are in solitary confinement, we spend most of our waking hours interpreting observed events involving other people in terms of intentions and related notions like purpose and interest; not consciously, of course, but we do it nonetheless. As long as we are able to do it with ease, and to pigeon-hole these events in terms of non-threatening intentions, the matter does not occupy our thoughts. But if a case arises that is not easily classified--we don't understand the intentions involved--it catches our attention, and we may spend some effort to resolve the matter, even if the outcome is of no consequence to the conduct of our affairs. For example, if while studying in the library I notice the person at the opposite carrel slowly and quietly removing pages from a notebook, wadding them up, and putting them in a wastebasket, I probably would ignore him and continue my work. But if he repeatedly removed a sheet of paper, wadded it up, unwadded it, replaced it in the notebook, removed it again, and so on, I would be unable to work until I had provided myself with an explanation of his behavior.

Less bizarre cases confront us constantly. I open the door to find a person standing there who holds out a package, and instantly I interpret her

behavior as motivated by the intention that I take the package. Many everyday cases fit Grice's (1957) characterization of "non-natural meaning" of an utterance:

"A meant_{NN} something by x" is (roughly) equivalent to "A intendend the utterance of x to produce some effect in an audience by means of the recognition of this intention." (p. 385)

For example, such everyday acts as holding open a door for somebody, or looking daggers at somebody who is on the point of revealing a secret, are quite analogous to meaningful utterances under Grice's characterization. And the notion "conversational implicature" can be naturally extended to non-linguistic acts. If upon being asked my opinion of a spinach souffle I have been served, I shovel the contents of my plate into the dog's dish, I have rendered my judgement as clearly as if I had said "it's awful," though less directly. In interpreting my action the questioner must invoke Grice's maxims just as if I had responded by saying something.

In short, then, conversational pragmatics of the sort Grice discusses is not really conversational at bottom, but the application of general principles of interpreting acts, applied to the sub-case of communicative acts, and more particularly verbal communicative acts. Unless I have misinterpreted him, I am following Grice in this.

Well then, one might object, this is not linguistics, at least not if we narrowly limit the subject matter of linguistics to those abilities that are uniquely linguistic abilities. And the only answer is, of course it's not. But even if we accept this narrow definition of the scope of the

field, we are stuck with pragmatics on methodological grounds. Semantics is now irretrievably part of linguistics. But our data about semantics is not direct, but really data of comprehension. Comprehension is demonstrably a mixture of pragmatic and semantic matters, and introspection supplies us no simple clue to what's semantic and what's pragmatic in a given case. Our only methodological tool consists of the tests for implicature discussed by Grice, which Sadock (this volume) shows to be difficult to apply. A major problem for linguistics and psycholinguists is the devising of reliable empirical tests for distinguishing semantic properties from matters of implicature in comprehension. But it must be kept constantly in mind that pragmatic "rules" have to do not with linguistic abilities, but with more general ones; so that if it can be shown that a linguistic theory of meaning like Montague grammar or generative semantics can give a unified account of semantics and pragmatics (especially if the account is in terms of formal properties of sentences) we should suspect that there is something wrong with the theory, unless we want to give up the position that there is a difference between the two.

Natural vs. Conventional

One basis of difference between semantics and pragmatics is the distinction between conventional and natural. By "natural" I mean that kind of "information" that one can reasonably infer as (part of) what the speaker intended to convey, but where the inference is not based

directly on any kind of linguistic convention, but on assumptions about what counts as rational behavior, knowledge of the world, and so on. Let me give a couple of examples of natural inferences, to make clear what I mean.

First a non-linguistic example. Imagine that I approach a classroom door and turn the knob. The door does not open. I continue turning the knob back and forth, but the door still does not open. A person who has been watching me (and who I have noticed watching me, and who I observe has seen that I have noticed him) approaches and hands me a key. I thank the person, insert the key in the lock on the door, unlock it, and so on. Now there are a number of inferences here, none of them based on any convention save for the conventions involved in the use of "thank you." The inferences I have in mind are these: the other person inferred from my behavior that I was trying to open the door, and that I was having no success. Notice this is not the sort of inference one would want to consider a matter of communication; it was not my intention that the person make this inference. But the next inference is indeed communicative. The person hands me a key, and I am justified in inferring that I am being given the key so that I can open the door with it (thus that it is in fact a key to the door I am trying to open). I am justified in assuming this in that (leaving out many steps) assuming that the person is rational, and knowing that he has seen me vainly trying the door, and that he knows that I know he saw me, then the most likely interpretation of his behavior is that he is giving me the right key so that I can open the door;

moreover, it is fairly clear that he must be aware that I am very likely to make this inference, and he has done nothing to stop me from making it; so he must intend for me to make it. No doubt this description will call to the reader's mind various points in Grice (1975). It is intended to. Notice that in no way is there any convention involved in this inferential chain, unless one would want to say that there is some cultural convention like "be helpful" involved. At any rate, it is clear that most of the steps in the inference are natural, rather than convention-based.

There is an inference involved in the interpretation of my use of "thank you," on the other hand, that could be described as involving both convention and natural inference. The inference I have in mind is the justified inference by the other person that in saying "thank you," I mean to thank him for giving me the key. The inference here is in part conventional, in that it is based on knowledge of the English phrase "thank you," and second on knowledge of the conventions concerning when one thanks, and for what kind of thing. But it also involves natural inference in his figuring out just what it is I'm thanking him for.

As far as communication is concerned, then, I use the term "natural" in a way that would be appropriately applied to meaning that is conveyed, or at least can be conveyed, via inferences about intentions behind communicative acts, as in the case of conversational implicature. In such cases, the relation between what is said and what is conveyed as natural meaning is not arbitrary, as it is in the case of the literal meanings of

words, but can be reasoned out from the literal meaning taken together with the facts surrounding the utterance (i.e., "context").

By "conventional," on the other hand, is usually meant the relation between linguistic form and literal meaning, which is arbitrary, a matter of knowledge of language. One cannot reason out from the word dog that it is used to refer to a certain kind of animal; one just knows it (or not), as a synchronically arbitrary fact of English. Such knowledge is knowledge of the conventions of English, which jointly constitute all or part of knowledge of language per se.

But as Searle points out in the passage quoted earlier, there is another sort of language-related convention, conventions of usage:

It is by now, I hope, uncontroversial that there is a distinction to be made between meaning and use, but what is less generally recognized is that there can be conventions of usage that are not meaning conventions. (p. 76)

Now it is not crystal clear in this passage what Searle has in mind as a case of "conventions of usage that are not meaning conventions," but I think there are cases that can be perspicuously described in these terms; in particular, conventions that are, strictly speaking, not conventions of the language, but conventions about the language, properly considered conventions of the culture that uses the language. For example, just as in our own culture it is conventional to greet someone by inquiring after the other person's health, so I am told that in some cultures it is conventional to greet by asking after the other person's gastronomic welfare,

most likely (but not exclusively) by saying something like "have you eaten?", i.e., its direct translation. Now on the one hand "have you eaten?" is by virtue of its semantics a natural way of greeting someone by conveying concern for his well-being, given the right conditions in the culture, as opposed to "seven is prime" or "your hair is missing"; but at the same time it is entirely arbitrary whether or not a given culture uses "have you eaten?" as a conventional way of greeting. And I think we would not want to say even when it is a conventional greeting that the expression "have you eaten?" means the same as "I greet you.", though indeed that kind of linguistic change does occur now and then. Rather, the convention involved here is a cultural convention about the use of language, not part of the language itself; though that is not to say a good language teacher would not teach it.

Another case: according to Webster (1968), the customary way of opening a conversation among Eskimos is by saying (the direct translation of) "you are obviously _____," where the blank is filled according to what the hearer is doing at the time of the utterance; thus for example "you are obviously reading Kant" or "you are obviously skinning a seal." Again, I think we would not want to say that the conventional literal meaning of the expression is merely a statement of intended effect, namely to open a conversation. Still there is a convention of some sort here, to the effect that it is customary or conventional to say a certain sentence and mean it under certain circumstances, with certain purposes.

Still another example: according to Wolff (1966) in Cebu culture one does not knock at a door but says something in the way of greeting, like "good morning." Both ways--knocking and greeting--would seem to be equally effective as natural ways of getting the attention of the inhabitants and provoking them to open the door. But one way is conventional in Cebu culture, the other way in ours. We might be tempted to assign something like "request for opening" as the literal meaning, so to speak, of the knock, since its use for the purpose is indeed conventional, and seems not to stem from any other "meaning" associated with knocking. But the temptation is less great to say in the Cebu case that the expression translated as "good morning" is ambiguous between the literal meaning of a morning greeting and that of a request to open the door. Rather, it would seem more appropriate to say that there is a convention to the effect that one announces one's presence at the door, etc., by issuing a greeting to the inhabitants. This is not a convention of the language, but about its use.

In sum, then, I am proposing that there are at least two distinct kinds of conventions involved in speech acts: conventions of the language (for example, the meaning of dog; the fact that in English the subject of a passive sentence is interpreted as (roughly) patient, and so forth) and conventions of the culture about the use of the language in certain cases (for example, the fact that to start an auto race one says "gentlemen, start your engines" (and means it), the fact that one is expected to say

something in the way of consolation at funerals, and so on) sometimes (but sometimes not) with particular expression (with their meanings) mentioned in the convention. The former, conventions of the language, are what make up the language, at least in part. The latter, conventions about the language, are a matter of culture (manners, religion, law,...) not knowledge of language per se. And I propose that by looking a little at the structure, so to speak, of this second kind of convention, we can derive first an account of the apparent paradox involved in cases like "can you pass the salt," in which they are treated as simultaneously conventional and natural, just as Searle says. Second, we will see that there is a range of possibilities for conventions intermediate between naturalness and conventions of the language. Third, along the way, we will construct a plausible picture of at least one way that expressions can change their status diachronically, by passing from the status of convention about language to the status of convention of language.

Conventions about Language

As an initial approximation, I think conventions about language can be considered to contain three kinds of elements: occasion, purpose, and means. As the statement of means becomes more and more specific, the convention approaches a convention of the language, a statement about literal meaning. As the connections between purpose and means become obscured, the relation between them is ripe for reinterpretation as entirely arbitrary, at which point the convention about the language is re-interpreted as a convention of the language.

As an illustration, we might consider various hypothetical versions of a convention concerning departure salutations, proceeding from less to more specific versions. As a rather non-specific version, we might start with something like a statement of occasion (which not all conventions will have), and purpose, as in (1).

(1) Upon parting, one expresses one's regard for the other person. Then (1) might be made more specific in a given culture by adding various means specifications, as in (2a) or (2b).

(2a) By expressing a concern for the welfare of the other person.

(2b) By expressing a desire or intention to see the other person again. These of course can in turn stand as purposes for further specification of means. For example, the alternatives in (3a) through (3c) might stand as means for the purpose (2a).

(3a) by expressing a wish for good health

(3b) by invoking the goodwill of God toward the other person

(3c) by expressing a wish for peace.

Each of these conventions, of course, could be made more specific, still allowing considerable freedom in choice of utterance to satisfy the convention, including the use of conversational implicature or literal expression of various kinds. Thus, for example, one might conform to the convention jointly defined by (1), (2a), and (3b) by uttering any of the following:

- (4a) May God be with you.
- (4b) God be with you.
- (4c) I pray to God that He will watch over you.
- (4d) I hope God will be good to you.

But one further type of specificity leads to a qualitative change in the convention; namely a specification of means that includes specification of the expression to be used in conforming to the convention, like (5) as a further specification of the parting convention (1) - (2a) - (3b).

(5) By saying the English sentence "God be with you." Notice that in the resulting convention (1) - (2a) - (3b) - (5) the form is specified as a meaningful sentence of English, recognizable as such; so that in saying "God be with you" as a way of conforming to the parting convention, one is saying it and meaning it in its literal meaning, though sincerity may be little more than pretense. The expression is thus not on a par with an idiom like "Kick the bucket." In saying something like "John kicked the bucket," meaning he died, the word-by-word meaning of the expression plays no role; in fact one might say that "kicked the bucket" is said (meaning died) in spite of its original literal meaning. But "God be with you" is said, as a way of conforming to the greeting convention, precisely because of its literal meaning; one says it and at least pretends to mean it (an atheist is likely to choose some other expression). Yet it is a matter of convention that one says it (and means it, or at least purports to mean it) under certain circumstances, for certain purposes.

There is a naturalness to the convention in that there is a natural connective chain between the (most general) purpose (1) of the convention and the specification of the means in terms of a particular English sentence. Part of the task of the language learner is to infer the nature of this chain, that is, the purpose-meaning connections between the occasion of usage and the expression used. Insofar as this chain is not fully reconstructed, the connection becomes arbitrary to some degree; once some arbitrariness arises, the relation is ripe for re-interpretation as entirely arbitrary. Thus the original convention (1) - (2a) - (3b) - (5) through failure of language learners to fully reconstruct the occasion-expression chain, might be reinterpreted in the following ways:

- (6) Upon parting, one invokes the good will of God toward the other person by saying the English sentence "God be with you."
- (7) Upon parting, one expresses one's regard for the other person by saying the English sentence "God be with you."
- (8) Upon parting, one says the English sentence "God be with you."

The most arbitrary version, of course, is (8), where the convention between occasion and expression is stated directly, not via a purpose-means chain. In such cases, the meaning of the literal expression no longer plays a direct role in the convention; speakers may be aware that the expression has a certain literal meaning, but may be entirely unaware what that meaning has to do with parting.

The use of the expression "break a leg" to wish a performer good luck before a performance is an especially interesting case of a convention about language that seems headed for eventual status of convention of language. I'm told that this expression originated due to the superstition that it would be bad luck to wish someone good luck--therefore one wished a fellow actor good luck by wishing him bad luck, i.e., a broken leg. But by now the choices of expression is rigidly fixed as part of the convention; none of the plausible paraphrases below will do for the same purpose.

(9) Fracture a tibia

(10) Break your leg

(11) I hope you break a leg

It is likely that newcomers to the theater sub-culture will not be aware of the history of the expression, so that the connection between purpose and means will be direct and arbitrary: before a performance, to wish a performer good luck in his performance, say "break a leg." But the expression is not thereby an idiom; if it were we would expect to find it used as if it were an idiom whose literal meaning was "have good luck," as in (12) as a way of saying (13). But the expression cannot be used this way.

(12) John really broke a leg last night.

(13) John really had good luck/did well in his performance last night.

The schema I have argued for seems to fit nicely in this case: an occasion,

a purpose and a means, the means specified as the utterance of a particular expression. But the original natural connection between purpose and means has now been lost.

Given this view of conventions about language, the language learner's task is to discover or reconstruct the details of the connection between occasion and purpose on the one hand, and linguistic means--the sentence used--on the other. In the case of the literal, non-formulaic use of language, the connection is mediated in a natural way, with the literal meaning of the sentence as one of the links in the connecting chain, as in some of the parting conventions discussed earlier. But these connections, where they are not trivial (e.g., saying "it's raining" to convey that it's raining), must be worked out by the language learner, whose only immediate data are inferences in context about the occasion and/or purpose of the utterance, and the expression employed. It may take some time for the language learner to fill in all the missing links in the chain. Accordingly, we might expect to find that children's linguistic competence has typically more of this arbitrary connection than does an adult's. But even in the case of adults there will probably be interpersonal variation on some expressions, describable in terms of the number of missing links in the knowledge of use of the expression. For example, we might find that knowledge about Gesundheit is best captured by (14) for some adults, by (15) or (16) for others.

- (14) When someone sneezes, to express concern for their health, say the German word for health, Gesundheit.
- (15) When someone sneezes, to express concern for their health, say Gesundheit.
- (16) When someone sneezes, say Gesundheit.

The third version, (16), if indeed it actually occurs, is of a rare type; the purpose has been entirely lost, so that the speaker knows only the occasion of using the expression, the only purpose for saying it being the purpose of conforming to the convention. It may be that this kind of case is more frequent among children: when such-and-such happens, one is supposed to say so-and-so.

Linguistic change arises when a speaker (or group, or entire generation of speakers) fails in reconstructing all the links of the chain, resulting in greater arbitrariness of the connection between purpose and expression, and potentially leading to use of the expression in situations incompatible with the original literal meaning of the expression. An obvious kind of example is the use of expletives like "for Christ's sake" by non-Christians, or "God damn it" by atheists; but there are more interesting cases as well, ranging from the utterance by German speakers of auf Wiedersehen to people who one knows one will never see again¹, to eventual change of literal meaning at the lexical level. But this kind of change is inhibited when the expression transparently has a (relevant) literal meaning. When its literal meaning is obscure (as in the case of Gesundheit) or becomes obscure

due to linguistic change (notice the archaic subjunctive in "God be with you") speakers may not recognize that the expression has a literal meaning distinct from its purpose of use, and the connection between purpose and form becomes arbitrary. Thus "God be with you" eventually becomes goodby by phonological change. In such a case the question arises whether it is the growing arbitrariness that makes the phonological change possible, or the other way around; or do the two reinforce each other?

At any rate, it is clear that a distinction must be made between conventions of language--matters of literal meaning--and conventions about language. And the descriptive schema I have given for the latter, in terms of occasion-purpose-means chains, allows a plausible account of the change from convention about to convention of language.² It also gives a picture of things wherein some cases are more arbitrary than others, in that more purpose-means links have been lost in one case than in the other.

Now given this kind of convention, how can it be extended to cases like "can you pass the salt"? What's needed is a description that says that in using "can you pass the salt" to make a request, one is using the sentence with its literal meaning, with the intention of conveying a request via Grice's maxims, but that in doing so one is following a convention about language use; the convention being, roughly, to request someone to do such-and-such indirectly, say the sentence "can you (do such-and-such)?", with its literal sense. My proposal, then, goes like this:

the expression "can you..." is not an idiom, but has only the obvious literal meaning of a question about the hearer's abilities.³ One can readily see how the expression could have, via Grice's maxims, the implicature of a request. In fact it has become conventional to use the expression in this way. Thus speakers know not only that "can you ..." has a certain literal meaning (a convention of language), they know also that using "can you..." is a standard way of indirectly making a request (a convention about language). Both are involved in a full understanding by the hearer of what is intended in the use of the expression.

Short-circuited Implicature

I suspect this will strike some readers as counter-intuitive, in that the "feel" of an implicature is lacking. One can see that a request implicature is calculable via Grice's maxims, but the subjective reaction is that the request nature of the speech act is conveyed without the sort of indirect feeling we attribute to the presence of inference; the literal meaning is in some way latent, rather than the basis for an inference. I think this intuition is correct, and that we need a notion of "short-circuited" implicature to account for it. Let me choose another, clearer, illustration to show what I mean by "short-circuited implicature."

Suppose I have a stingy friend. One day when asked for a loan, he replies, "Do I look like a rich man?" intending thereby the conversational implicature of a refusal. Now suppose my friend is not very imaginative, and impressed by his own wit, he comes to use that sentence for refusing

loans as a matter of habit. Still, it is a habit of saying a certain sentence, with its literal meaning, intending thereby to convey a refusal indirectly via Grice's maxims. But in interpreting my friend's utterance, I no longer have to make the inference--his habits are now part of my background knowledge. Upon hearing him say it in the right context, this background knowledge tells me immediately what he is doing. Now suppose my friend's habit spreads, so that it is common throughout the community to refuse loans by saying "do I look like a rich man?" To be a member of a culture is to some extent to be an observer of the culture; members will thus observe that in this community loans are commonly refused (more specifically, perhaps commonly indirectly refused) by saying, "do I look like a rich man?" (though there may be other modes of refusal as well). Thus it becomes "common knowledge" in the community that people refuse loans by saying a certain sentence, with its literal meaning, intending thereby to convey an implicature of refusal. But the inference of the implicature is short-circuited; armed with this common knowledge I know more or less immediately, without calculating the inference, that an implicature of a refusal was intended. Nonetheless, a speaker of the language who lacks this bit of common knowledge will understand what is intended if he hears "do I look like a rich man?", by the original route of conversational implicature.

Some More Cases

I suspect that the reader will not yet be entirely convinced by my (admittedly counter-intuitive) claim that an expression can be conventionalized and at the same time keep its literal meaning. Let me therefore present some more examples, of two kinds: first, cases where a particular expression is part of the convention, and second, some cases where it is a "rule of conversation" that is conventionalized.

Cases abound where it is conventional to use a particular form for a particular purpose, but where the literal meaning of the expression is still involved. A simple example is the forms used for identifying oneself over the telephone. It is conventional at least in the Midwestern U.S. to use expressions like those illustrated in (17) and (18).

(17) This is Edith Thornton.

(18) Edith Thornton speaking.

On the one hand, in using these expressions one means them literally. But on the other hand, it is purely a matter of convention that one uses these particular forms rather than any of (19) through (22), which are equally appropriate if considered on semantic grounds alone (their literal translations might well be used for this purpose in another language; (20), for example, is used in Hebrew) but just happen not to be conventional English means of identification over the telephone. The slight difference between (18) and (21) is especially interesting as a demonstration of how form-specific such conventions can be.

(19) Here is Edith Thornton.

(20) Here is Edith Thornton speaking.

(21) Edith Thornton is speaking.

(22) I am Edith Thornton.

There are many cases that involve implicature, but as a matter of convention, so that the implicature is short-circuited. For example, (23) is commonly used to convey something like (24).

(23) If you've seen one, you've seen them all.

(24) They're all alike, so it's a waste of time to examine them separately.

It is intuitively clear that (24) could be reasoned out as an implicature of (23); but it is now conventional to use (23) to convey (24). Although one has in mind the literal meaning of (23) in using it to convey (24), the form of the expression is strictly part of the convention. Sentences having precisely the same literal meaning but even slightly different form do not convey (24) with the same immediacy. If one manages to convey (24) by saying (25) or (26), it will be as a fresh implicature, without the short-circuiting that accompanies the conventional form (23).

(25) If you've seen one, you've seen all of them.

(26) You've seen them all if you've seen one.

Below are some more cases of conventionalized implicature, where a certain expression, with its literal meaning is used more or less conventionally to convey a certain implicature:

- (27) You can say that again. (cf. You can repeat that.)
- (28) How many times have I told you... (cf. Tell me how many times I've told you...)
- (29) It takes one to know one. (cf. It requires one to recognize one.)

It should be pointed out that another kind of knowledge about (not of) language can play an important part in the short-circuiting of implicature: knowledge of previous use of an expression. A kind of common knowledge (not always directly related to literal meaning) about particular expressions can be exploited to bring about a conversational implicature, as in "cliches" like (30) through (33).

- (30) [Policeman to motorist] Where's the fire?
- (31) ... no questions asked.
- (32) [Spouse to spouse] I've got a headache.
- (33) Your place or mine?

But these expressions are clearly not idioms. One uses them meaning them literally, though their use conveys much besides the literal meaning.

In other cases it is knowledge about particulars of history of use that is exploited for the sake of implicature. One conveys more than literal meaning in saying (34) through (36) by virtue of the hearer's knowledge of well-known previous uses of these sentences.

(34) Am I my brother's keeper?

(35) I want to be alone.

(36) I'd rather be in Philadelphia.

The hearer will recognize that these are famous lines, will conclude reasonably that the speaker must have known he will make the historical connection but did nothing to stop him from making it, therefore must have intended it to be made, and so on. The allusion, and resulting implicature, are conveyed in the usual Gricean fashion.

Finally I come to the question of the conventionalization of rules of conversation. Just above I presented cases involving particular expressions and the conventionalization of their use for certain implicatures, as in the case of "if you've seen one, you've seen them all," or the original example, "can you pass the salt?". I said in the latter cases that it had become a convention about language to use this expression, with its literal meaning, to convey an implicature of a request. The question now arises, can there be this kind of conventionalization of rules of conversation? I think there can. For example, it is more or less conventional to challenge the wisdom of a suggested course of action by questioning the mental health of the suggestor, by any appropriate linguistic means, as in

(37) Are you crazy?

(38) Have you lost your mind?

(39) Are you out of your gourd?

and so on. Most Americans have two or three stock expressions usable as answers to obvious questions, as in

(40) Is the Pope Catholic?

(41) Do bagels wear bikinis?

But for some speakers the convention does not specify a particular expression, and new ones are manufactured as they are needed. It seems that here a schema for implicature has been conventionalized: answer an obvious yes-no question by replying with another question whose answer is very obvious and the same as the answer you intend to convey.

In a similar way, most speakers have a small number of expressions usable as replies to assertions, with the implicature that the assertion is transparently false; (42), for example.

(42) Yes, and I'm Marie the Queen of Romania.

But again, for some speakers the convention specifies only a general strategy, rather than a particular expression: to convey that an assertion is transparently false, reply with another assertion even more transparently false. Hearers unfamiliar with the convention will take longer, having to calculate as conversational implicature what most Americans (at least) will recognize immediately. But it is clear that this conventional strategy could have arisen (and probably did arise) as a conversational implicature that became conventionalized. What was formerly a matter of natural inference becomes a convention about language. The result is the hypostaticization of a particular strategy of conversational implicature, that one might call a "conversational postulate." In

Morgan (1977) I criticized Gordon and Lakoff's (1977) exposition of the notion "conversational postulate" on the grounds that the "postulates" they proposed had no independent status, but could be (or ought to be) derived as consequences of general principles of conversation of the sort proposed by Grice. But the notion "conversation about language" as I have argued for it here allows for an interpretation of Gordon and Lakoff's proposal in which conversational postulates would have independent status--namely, where implicature strategies become institutionalized as conventions about language.⁴

Conclusion

Here is the moral: there is more to knowing "how to do things with words" than just knowledge of literal meaning. Besides knowledge of the conventions of word meanings and the semantic rules of combination, language users also have knowledge about the use of particular expressions or classes of expressions. This second kind of knowledge sometimes involves convention, but conventions about language, conventions governing the use of meaning-bearing expressions on certain occasions, for certain purposes. These two kinds of knowledge are not mutually exclusive. They are involved simultaneously in the full understanding of many utterances.

I have left a couple of tough nuts uncracked. First there is the methodological problem of setting out empirical criteria by which the linguist can determine the status of a given expression vis-a-vis the distinctions I have discussed. Here I have relied heavily on the reader's

intuition that the expressions I have discussed work the way I say they do. I also expect that psychologists will find it difficult to construct simple relevant experiments.

Second, I have followed hallowed linguistic tradition in carefully avoiding saying what I meant by "convention." Some of the things I have called "convention" might seem more perspicuously described by phrases like "knowledge of shared habit" or "common knowledge of the way things are done." I think a clearer understanding of these matters will probably strengthen my case.

Reference Notes

¹Such cases raise questions about the role of habit in this kind of linguistic change. For example, I have noticed in my own behavior the recent annoying habit of using "see you later" when taking leave, even in circumstances where it is clear to everyone involved that I will not see my interlocutor later.

²As far as I can see, it is logically possible for there to arise changes in the other direction as well, from convention of language to convention about language. But such a change would require a far more complicated chain of events, and may well never happen.

³I am ignoring other readings of "can you..." (e.g. deontic and epistemic readings of can) that are irrelevant to the present discussion.

⁴Given this new sense of "conversational postulate" as conventionalized strategy of implicature, most of Gordon and Lakoff's analyses of particular cases will have to be reconsidered. For example, their analysis of "can you..." as an instance of a conversational postulate does not mention directly any particular expression, thus predicting incorrectly that literally synonymous expressions (like "are you able to...") should work the same way as "can you...". Under the analysis I presented earlier, it is just the use of "can you..." that has been conventionalized as an indirect request. Synonymous expressions work as genuine implicature, not short-circuited as with "can you...", and are thus subjectively more indirect.

References

- Cole, P. The synchronic and diachronic status of conversational implicature. In P. Cole and J. Morgan (Eds.), Syntax and semantics (Vol. 3): Speech acts. New York: Academic Press, 1975, 257-288.
- Cole, P., & Morgan, J. (Eds.), Syntax and semantics (Vol. 3): Speech acts. New York: Academic Press, 1975.
- Gordon, D., & Lakoff, G. Conversational postulates. In P. Cole and J. Morgan (Eds.), Syntax and semantics (Vol. 3): Speech acts. New York: Academic Press, 1975, 83-106.
- Grice, H. P. Meaning. Philosophical Review, 1957, 66, 377-388.
- Grice, H. P. Logic and conversation. In P. Cole and J. Morgan (Eds.), Syntax and semantics (Vol. 3): Speech acts. New York: Academic Press, 1975, 41-58.
- Lakoff, R. Language and woman's place. Language and Society, 1973, 1.
- Morgan, J. Conversational postulates revisited. Language, 1977, 53, 277-284.
- Sadock, J. Toward a linguistic theory of speech acts. New York: Academic Press, 1974.
- Searle, J. Indirect speech acts. In P. Cole and J. Morgan (Eds.), Syntax and semantics (Vol. 3): Speech acts. New York: Academic Press, 1975.
- Webster, D., & Webster, T. Let's learn Eskimo. Fairbanks: Summer Institute of Linguistics, 1968.
- Wolff, J. Beginning Cebuano. New Haven, Conn.: Yale University Press, 1966.

CENTER FOR THE STUDY OF READING

TECHNICAL REPORTS

- No. 1: Halff, H. M. Graphical Evaluation of Hierarchical Clustering Schemes, October 1975. (ERIC Document Reproduction Service No. ED 134 926, 11p., HC-\$1.67, MF-\$.83)
- No. 2: Spiro, R. J. Inferential Reconstruction in Memory for Connected Discourse, October 1975. (ERIC Document Reproduction Service No. ED 136 187, 81p., HC-\$4.67, MF-\$.83)
- No. 3: Goetz, E. T. Sentences in Lists and in Connected Discourse, November 1975. (ERIC Document Reproduction Service No. ED 134 927, 75p., HC-\$3.50, MF-\$.83)
- No. 4: Alessi, S. M., Anderson, T. H., & Biddle, W. B. Hardware and Software Considerations in Computer Based Course Management, November 1975. (ERIC Document Reproduction Service No. ED 134 928, 21p., HC-\$1.67, MF-\$.83)
- No. 5: Schallert, D. L. Improving Memory for Prose: The Relationship Between Depth of Processing and Context, November 1975. (ERIC Document Reproduction Service No. ED 134 929, 37p., HC-\$2.06, MF-\$0.83)
- No. 6: Anderson, R. C., Goetz, E. T., Pichert, J. W., & Halff, H. M. Two Faces of the Conceptual Peg Hypothesis, January 1976. (ERIC Document Reproduction Service No. ED 134 930, 29p., HC-\$2.06, MF-\$.83)
- No. 7: Ortony, A. Names, Descriptions, and Pragmatics, February 1976. (ERIC Document Reproduction Service No. ED 134 931, 25p., HC-\$1.67, MF-\$.83)
- No. 8: Mason, J. M. Questioning the Notion of Independent Processing Stages in Reading, February 1976. (Journal of Educational Psychology, 1977, 69, 288-297)
- No. 9: Siegel, M. A. Teacher Behaviors and Curriculum Packages: Implications for Research and Teacher Education, April 1976. (ERIC Document Reproduction Service No. ED 134 932, 42p., HC-\$2.06, MF-\$.83)
- No. 10: Anderson, R. C., Pichert, J. W., Goetz, E. T., Schallert, D. L., Stevens, K. V., & Trollip, S. R. Instantiation of General Terms, March 1976. (ERIC Document Reproduction Service No. ED 134 933, 30p., HC-\$2.06, MF-\$.83)
- No. 11: Armbruster, B. B. Learning Principles from Prose: A Cognitive Approach Based on Schema Theory, July 1976. (ERIC Document Reproduction Service No. ED 134 934, 48p., HC-\$2.06, MF-\$.83)
- No. 12: Anderson, R. C., Reynolds, R. E., Schallert, D. L., & Goetz, E. T. Frameworks for Comprehending Discourse, July 1976. (ERIC Document Reproduction Service No. ED 134 935, 33p., HC-\$2.06, MF-\$.83)
- No. 13: Rubin, A. D., Bruce, B. C., & Brown, J. S. A Process-oriented Language for Describing Aspects of Reading Comprehension, November 1976. (ERIC Document Reproduction Service No. ED 136 188, 41p., HC-\$2.06, MF-\$.83)

- No. 14: Pichert, J. W., & Anderson, R. C. Taking Different Perspectives on a Story, November 1976. (ERIC Document Reproduction Service No. ED 134 936, 30p., HC-\$2.06, MF-\$0.83)
- No. 15: Schwartz, R. M. Strategic Processes in Beginning Reading, November 1976. (ERIC Document Reproduction Service No. ED 134 937, 19p., HC-\$1.67, MF-\$0.83)
- No. 16: Jenkins, J. R., & Pany, D. Curriculum Biases in Reading Achievement Tests, November 1976. (ERIC Document Reproduction Service No. ED 134 938, 24p., HC-\$1.67, MF-\$0.83)
- No. 17: Asher, S. R., Hymel, S., & Wigfield, A. Children's Comprehension of High- and Low-Interest Material and a Comparison of Two Cloze Scoring Methods, November 1976. (ERIC Document Reproduction Service No. ED 134 939, 32p., HC-\$2.06, MF-\$0.83)
- No. 18: Brown, A. L., Smiley, S. S., Day, J. D., Townsend, M. A. R., & Lawton, S. C. Intrusion of a Thematic Idea in Children's Comprehension and Retention of Stories, December 1976. (ERIC Document Reproduction Service No. ED 136 189, 39p., HC-\$2.06, MF-\$0.83)
- No. 19: Kleiman, G. M. The Prelinguistic Cognitive Basis of Children's Communicative Intentions, February 1977. (ERIC Document Reproduction Service No. ED 134 940, 51p., HC-\$3.50, MF-\$0.83)
- No. 20: Kleiman, G. M. The Effect of Previous Context on Reading Individual Words, February 1977. (ERIC Document Reproduction Service No. ED 134 941, 76p., HC-\$4.67, MF-\$0.83)
- No. 21: Kane, J. H., & Anderson, R. C. Depth of Processing and Interference Effects in the Learning and Remembering of Sentences, February 1977. (ERIC Document Reproduction Service No. ED 134 942, 29p., HC-\$2.06, MF-\$0.83)
- No. 22: Brown, A. L., & Campione, J. C. Memory Strategies in Learning: Training Children to Study Strategically, March 1977. (ERIC Document Reproduction Service No. ED 136 234, 54p., HC-\$3.50, MF-\$0.83)
- No. 23: Smiley, S. S., Oakley, D. D., Worthen, D., Campione, J. C., & Brown, A. L. Recall of Thematically Relevant Material by Adolescent Good and Poor Readers as a Function of Written Versus Oral Presentation, March 1977. (ERIC Document Reproduction Service No. ED 136 235, 23p., HC-\$1.67, MF-\$0.83)
- No. 24: Anderson, R. C., Spiro, R. J., & Anderson, M. C. Schemata as Scaffolding for the Representation of Information in Connected Discourse, March 1977. (ERIC Document Reproduction Service No. ED 136 236, 18p., HC-\$1.67, MF-\$0.83)
- No. 25: Pany, D., & Jenkins, J. R. Learning Word Meanings: A Comparison of Instructional Procedures and Effects on Measures of Reading Comprehension with Learning Disabled Students, March 1977. (ERIC Document Reproduction Service No. ED 136 237, 34p., HC-\$2.06, MF-\$0.83)

- No. 26: Armbruster, B. B., Stevens, R. J., & Rosenshine, B. Analyzing Content Coverage and Emphasis: A Study of Three Curricula and Two Tests, March 1977. (ERIC Document Reproduction Service No. ED 136 238, 22p., HC-\$1.67, MF-\$.83)
- No. 27: Ortony, A., Reynolds, R. E., & Arter, J. A. Metaphor: Theoretical and Empirical Research, March 1977. (ERIC Document Reproduction Service No. ED 137 752, 63p., HC-\$3.50, MF-\$.83)
- No. 28: Ortony, A. Remembering and Understanding Jabberwocky and Small-Talk, March 1977. (ERIC Document Reproduction Service No. ED 137 753, 36p., HC-\$2.06, MF-\$.83)
- No. 29: Schallert, D. L., Kleiman, G. M., & Rubin, A. D. Analysis of Differences Between Oral and Written Language, April 1977.
- No. 30: Goetz, E. T., & Osborn, J. Procedures for Sampling Texts and Tasks in Kindergarten through Eighth Grade, April 1977.
- No. 31: Nash-Webber, B. Anaphora: A Cross-Disciplinary Survey, April 1977.
- No. 32: Adams, M. J., & Collins, A. A Schema-Theoretic View of Reading Comprehension, April 1977.
- No. 33: Huggins, A. W. F. Syntactic Aspects of Reading Comprehension, April 1977.
- No. 34: Bruce, B. C. Plans and Social Actions, April 1977.
- No. 35: Rubin, A. D. Comprehension Processes in Oral and Written Language, April 1977.
- No. 36: Nash-Webber, B., & Reiter, R. Anaphora and Logical Form: On Formal Meaning Representations for Natural Language, April 1977.
- No. 37: Adams, M. J. Failures to Comprehend and Levels of Processing in Reading, April 1977.
- No. 38: Woods, W. A. Multiple Theory Formation in High-Level Perception, April 1977.
- No. 39: Nickerson, R. S., & Adams, M. J. Uses of Context in Speech Understanding and Reading, April 1977.
- No. 40: Brown, J. S., & Collins, A. Model-Based Versus Text-Based Reasoning, April 1977.
- No. 41: Anderson, R. C., & Pichert, J. W. Recall of Previously Unrecallable Information Following a Shift in Perspective, April 1977.
- No. 42: Mason, J., Osborn, J., & Rosenshine, B. A Consideration of Skill Hierarchy Approaches to the Teaching of Reading, April 1977.
- No. 43: Collins, A., Brown, A. L., Morgan, J. L., & Brewer, W. F. The Analysis of Reading Tasks and Texts, April 1977.

- No. 44: McClure, E. Aspects of Code-Switching in the Discourse of Bilingual Mexican-American Children, April 1977.
- No. 45: Schwartz, R. M. Relation of Context Utilization and Orthographic Automaticity in Word Identification, May 1977.
- No. 46: Anderson, R. C., Stevens, K. C., Shiffrin, Z., & Osborn, J. Instantiation of Word Meanings in Children, May 1977.
- No. 47: Brown, A. L. Knowing When, Where, and How to Remember: A Problem of Metacognition, June 1977.
- No. 48: Brown, A. L., & DeLoache, J. S. Skills, Plans, and Self-Regulation, July 1977.
- No. 49: Goetz, E. T. Inferences in the Comprehension of and Memory for Text, July 1977.
- No. 50: Anderson, R. C. Schema-Directed Processes in Language Comprehension, July 1977.
- No. 51: Brown, A. L. Theories of Memory and the Problems of Development: Activity, Growth, and Knowledge, July 1977.
- No. 52: Morgan, J. L. Two Types of Convention in Indirect Speech Acts, July 1977.
- No. 53: Brown, A. L., Smiley, S. S., & Lawton, S. C. The Effects of Experience on the Selection of Suitable Retrieval Cues for Studying from Prose Passages, July 1977.
- No. 54: Fleisher, L. S., & Jenkins, J. R. Effects of Contextualized and Decontextualized Practice Conditions on Word Recognition, July 1977.
- No. 55: Jenkins, J. R., & Larson, K. Evaluating Error Correction Procedures for Oral Reading, August 1977.
- No. 56: Anderson, T. H., Standiford, S. N., & Alessi, S. M. Computer Assisted Problem Solving in an Introductory Statistics Course, August 1977.
- No. 57: Barnitz, J. Interrelationship of Orthography and Phonological Structure in Learning to Read, August 1977.
- No. 58: Mason, J. M. The Role of Strategy in Reading in the Mentally Retarded, September 1977.
- No. 59: Mason, J. M. Reading Readiness: A Definition and Skills Hierarchy from Preschoolers' Developing Conceptions of Print, September 1977.
- No. 60: Spiro, R. J., & Esposito, J. J. Superficial Processing of Inferences Presented in Text, October 1977.
- No. 61: Spiro, R. J., & Smith, D. Distinguishing Sub-Types of Poor Comprehenders: Overreliance on Conceptual vs. Data-Driven Processes, October 1977.

- No. 62: Spiro, R. J., & Rittenhouse, R. K. Attribute Clarity in Conservation Instructions and Horizontal Décalage in Normal Hearing and Deaf Children, October 1977.
- No. 63: Spiro, R. J., & Anderson, M. C. Theme and Subordination in Sentence Recall, October 1977.
- No. 64: Spiro, R. J., & Martin, J. E. Contextual Factors in the Recall of Alternative Surface Structures, October 1977.
- No. 65: Brewer, W. F. Memory for the Pragmatic Implications of Sentences, October 1977.

