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A pragmatic analysis of the epistemic *would* construction in English¹

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1. Introduction

Research into the discourse functions of syntactic constructions (e.g., Prince 1986; Ward 1988; Birner and Ward 1998) has demonstrated the relevance of a contextually salient open proposition (OP) for the felicity of a variety of constructions. In our previous work (Birner, Kaplan, and Ward 2001), we have shown that epistemic *would*, illustrated in (1), is among this class of constructions:

- (1) A: *Who's the British woman over there?*
B: *That would be J.K. Rowling.*

Speaker B's use of the modal in (1) is epistemic in the sense that it conveys her assessment of the truth of the proposition being expressed; in this case, it conveys the speaker's level of confidence in the proposition that the woman in question is J.K. Rowling. Note that, for example, the confidence level conveyed in (1) is generally lower than that conveyed by the corresponding simple present indicative ' in (2):

- (2) *That's J.K. Rowling.*

but higher than that conveyed by the epistemic evidential modals *should* and *must*, as in (3a) and (b), respectively:

- (3) a. *That should be J.K. Rowling.*
b. *That must be J.K. Rowling.*

In Birner, Kaplan, and Ward (2001), we argued that epistemic *would*: (1) requires a salient OP in context; (2) instantiates the variable in the OP with a discrete member of some salient set; and (3) conventionally implicates that the proposition conveyed is empirically verifiable. In this paper, we refine our account of the conventional implicature involved and show that

the demonstrative *that* in example (1) can actually have one of three distinct readings: it can be used to refer to the actual woman in question, or it can take as its antecedent either the NP *the British woman over there* or the variable in the OP (corresponding in [1] to the *wh*-expression). Finally, we will show how this fact can explain an otherwise puzzling ambiguity.

2. A pragmatic account of epistemic *would*

Previous work on modality has failed to accurately characterize the epistemic effect of *would*. Palmer (1990) and Perkins (1983) call epistemic *would* tentative; Sweetser (1982) calls it a conditional with a general, and suppressed, *if*-clause; and Coates (1983) declares that it expresses the predictability of some past action or state. These accounts exclude assertions like those in (4a–c), where there is clearly no tentativeness and no conditionality, and the assertion is not about the past.

- (4) a. ...*I do have some answers for you. You asked about one person declaring all of the income on one property and one person taking all of the expense. The answer to that would be no.* (AS in e-mail to BL, 11/14/00)
- b. B: *Are you the Meredith that was listed in the Graduate Student News?*
M: *Yeah, that would be me.* (in class, 10/25/00)
- c. (A is holding a plastic bag with a fish in it.)
A: *I don't know. Maybe it's in shock.*
B: *Looks dead to me.*
C: *That would be one dead fish.*
(conversation, WalMart Pet Dept., 12/29/00; token courtesy of M. Larson)

In (4a), there is nothing tentative or conditional about the answer given, nor is there anything tentative or conditional about M's response *that would be me* in (4b), or the assertion *that would be one dead fish* in (4c). All three assertions, moreover, concern the present.

As we argued in our earlier work (Birner, Kaplan, and Ward 2001), what distinguishes epistemic *would* from the other evidential modals is the crucial role that open propositions play in its interpretation. An open proposition is a proposition with one or more underspecified elements. For instance, consider examples (5) and (6):

- (5) *I plan to discuss several topics. What I'll discuss first is the notion of political correctness.*
OP: *I'LL DISCUSS X FIRST* (where X is a member of the set of topics)
- (6) *I don't usually eat dessert. Apple pie I like, but most desserts are too sweet for my tastes.*
OP: *I LIKE X* (where X is a member of the set of desserts)

In (5), the first sentence (*I plan to discuss several topics*) makes salient the proposition that I will discuss these topics in some order, and in particular that I will discuss some topic first. Thus, the proposition "*I'll discuss X first*" is salient, where X is a variable ranging over the set of topics. The variable is what makes it an open proposition; a closed proposition would be one with no underspecified elements – that is, one that did not contain a variable.

It is this salient OP in (5) that licenses the use of the *wh*-cleft in the second sentence (*What I'll discuss first is the notion of political correctness*). That is, it is the hearer's expectation that the speaker will discuss some topic first that makes it appropriate for the speaker to use this construction.

Similarly, in (6) the first sentence makes salient the notion that the speaker has certain likes and dislikes regarding desserts; the salient OP "I like X", where X is a variable ranging over the set of desserts, then licenses the preposing in the second sentence (*Apple pie I like*, as opposed to the canonical word order *I like apple pie*). Without an appropriate salient OP, the preposing would be infelicitous, as in (7a):

- (7) a. *I want this to be a great party. #Apple² pie I like, so I think I'll serve that for dessert.*
b. *I want this to be a great party. I like apple pie, so I think I'll serve that for dessert.*

Here, the prior sentence does not make salient the notion that the speaker has various likes and dislikes toward different desserts, and therefore the preposed variant is infelicitous, as indicated in (7a). Notice that the non-preposed variant in (7b) is felicitous, since the use of canonical word order doesn't require the salience of any particular OP.

Now consider again the use of epistemic *would*, as in (1), repeated here as (8):

- (8) A: *Who's the British woman over there?*
 B: *That would be J.K. Rowling.*
 OP: *THE BRITISH WOMAN OVER THERE IS X* (where X is a member of the set of names)

Here, the speaker instantiates the variable in the OP *The British woman over there is X* with the value *J. K. Rowling*. Such an OP must be salient for the use of epistemic *would* to be felicitous. To see this, compare (9) and (10):

- (9) A: *I wish I could marry a millionaire like Max did.*
 B: *#Yeah, that would be Ethel Rothschild.*
 (10) A: *Which millionaire did Max marry?*
 B: *That would be Ethel Rothschild.*
 OP: *THE MILLIONAIRE IS X* (where X is a member of the set of names)

In (9), the OP *The millionaire has name X* is not salient, because the sentence is not really about the particular millionaire that Max married, but rather about A's desire to marry a person with the property of being a millionaire. The identity of Max's spouse in this context is therefore incidental and not at issue. The *wh*-question in (10), on the other hand, renders the OP salient by focusing its variable, and the result is a completely felicitous utterance of epistemic *would*. In short, the more salient the existence and identity of Max's spouse, the more salient the OP *The millionaire has name X*, and the more felicitous the use of epistemic *would*. Thus, we can conclude that the felicitous use of epistemic *would* requires the presence of a salient OP in the context.

Moreover, the clause containing epistemic *would* must instantiate the variable in the OP with a discrete member of some salient set, as shown in (11):

- (11) a. A: *What is Omaha like?*
 B: *#That would be cold.*
 b. A: *What is the temperature in Omaha today?*
 B: (reading newspaper weather page) *That would be 5 degrees Fahrenheit.*

In (11a), speaker B's utterance fails to instantiate the variable with a discrete member of a contextually salient set because *be like* is too vague to

evoke such a set and *cold* is only an ill-defined area of an infinitely varying temperature scale rather than an individuated set member. But in (11b), speaker B's response does instantiate the variable with an individuated member of a contextually evoked set, namely the set of degrees on the Fahrenheit scale, and the example is felicitous.

In addition, the use of epistemic *would* conventionally implicates that the speaker believes she or he has conclusive objective (that is, empirical or logical) evidence for the truth of the proposition encoded in the utterance (cf. Palmer's [2001] notion of epistemic deduction). This rules out, among other things, decisions, predictions, and wild guesses, as shown in (12), (13), and (14), respectively:

- (12) (Host to guest at dinner party)
 Host: *Hi Chris, come on in! Glad you could make it. Can I take your coat?*
 Guest: *Thanks.*
 Host: *Something to drink?*
 Guest: *#That would be wine, thank you.*

This example is infelicitous because the illocutionary force of the guest's utterance is to request a drink, not to assert a truth-evaluable proposition.

- (13) (co-workers gossiping over lunch)
 A: *How much do you predict Jones will make with his promotion to vice-president next year?*
 B1: *#That would be \$110K, but I have no real evidence for this.*
 B2: *That would be \$110K. I saw the new salary schedule.*

B1's response in (13) is infelicitous because B's utterance encodes a prediction for which the speaker lacks objective evidence. Note that, in contrast, B2's response is felicitous, given the subsequent sentence which provides the requisite basis for his belief.

- (14) A: *Guess what color I've decided to paint my living room.*
 B: *How should I know?*
 A: *Come on; just guess.*
 B1: *#That would be blue.*
 B2: *Ok, blue.*

Finally, B1's response in (14) is infelicitous because it constitutes a guess, and as such is not based on objective evidence. B2 shows that the infelicity of B1 is not due to the guess per se, but rather to its appearance in the epistemic *would* construction.

In contrast, reasoning and the recovery of facts are felicitous, as they require the speaker's reliance on objective evidence. That epistemic *would* supports a reasoned conclusion is illustrated in (15):

- (15) A: *There's only one card left.*
 B: *Well, I've only seen three queens, so that would be the Queen of Diamonds.*

Example (15) is felicitous because a valid process of logical deduction leads to a reliable conclusion. Similarly, the mathematical calculation in (16) is objectively verifiable and thus supports the use of epistemic *would*:

- (16) A: *What's the square root of 625?*
 B: *That would be 25.*

Finally, (17) felicitous because an established fact about the future, like a baseball schedule, is similarly objectively verifiable:

- (17) A: *How many times will the Padres play the Giants next year?*
 B: *That would be eleven.*

So far we have shown that epistemic *would* requires a salient OP, that the clause containing the modal serves to instantiate the variable in the OP with a discrete member of some salient set, and that epistemic *would* conventionally implicates that the truth of the resulting proposition is conclusively supported by objective evidence. Thus, the salience of the OP and the instantiation of the variable in the OP are crucial to the meaning and interpretation of epistemic *would*.

This variable-instantiating property, furthermore, explains a certain ambiguity found in some sentences containing epistemic *would*. Consider (18):

- (18) A: *What's your most prized possession?*
 B: *That would be my grandmother's wedding ring.*
 OP: *MY MOST PRIZED POSSESSION IS X* (where X is a member of the set of personal belongings)

Here, B's response is actually ambiguous: the demonstrative *that* may be anaphoric either to the phrase *your most prized possession* or to the variable in the OP (in which case the utterance means something like "the answer to your question is 'my grandmother's wedding ring'"). These interpretations are more clearly distinguished in (19)–(21):

- (19) A: *What was the worst experience of your life?*
 B: *Well, mm, that car accident I had in college was awful, but my Ph.D. comprehensive was a weekend take-home open-book with 14 questions over 3 subfields...that would be the worst.*
- (20) A: *What are all these instruments?*
 B: (pointing) *This one's a sousaphone, and that would be a flugelhorn.*
- (21) A: *Have you met my roommate Jill?*
 B: *No, but John was telling me about her. I think he said she was remarkably tall.*
 A: *Actually, that would be short.*

In (19), *that* is clearly anaphoric to the NP *my Ph.D. comprehensive*. In (20), *that* has deictic reference to the instrument contextually present. In (21), however, the use of the demonstrative *that* is felicitous in the absence of either deictic reference or a plausible antecedent in the prior discourse; instead, *that* in A's response is anaphoric to the variable in the OP (i.e., *JILL IS X*, where X is a member of the set {tall, short}).

Example (18) above, then, is ambiguous because *that* in B's response can take as its antecedent either the phrase *your most prized possession*, in which case its interpretation is analogous to that in (19), or the variable in the OP, in which its interpretation is analogous to that in (21). A reading for (18) analogous to the deictic reading seen in (20) would not be available without the ring being physically present in the context.

Notice that when the antecedent of the anaphor is the variable of the OP, the time reference of the event in question is irrelevant; it may be in the past, present, or future, as seen in (22)–(24), respectively:

- (22) A: *When was your last trip to Europe?*
 B: *That would be 1992.*
- (23) A: *When is your trip to Europe?*
 B: *That would be right now – I'm on my way to the airport!*
- (24) A: *When is your next trip to Europe?*
 B: *That would be 2004.*

In (22), the trip in question is in the past, in (23) it is commencing at the time of the utterance, and in (24) it is in the future. Yet non-finite *be* is permitted in each case on the reading in which *that* is anaphoric to the variable. The reason is that the variable-instantiation is occurring at the time of the utterance; therefore, the utterance conveying this instantiation need not be marked for past or future time reference.

In contrast, when the anaphor is used to refer to the event itself, the tense-marked modal must agree with the time reference of the event, as seen in (25)–(26):

- (25) a. *I had a great time the first time I traveled to Europe. That would have been 1992.*
 b. *I had a great time the first time I traveled to Europe. #That would be 1992.*
- (26) *I bet I'm going to have a blast when I go to Europe. #That would be 2004.*

In these examples, the referent of *that* is the trip itself. And as shown in (25), when reference is restricted to the event itself, and this event occurred in the past, perfective *have* is required, as shown in (25a). Infinitival *be* alone, as in (25b), is infelicitous. For future events, however, as in (26), English morphology provides nothing parallel to perfective *have*, and infelicity results.

3. Conclusion

We have shown that epistemic *would* requires a salient OP in context, instantiates the variable in the OP with a discrete member of some salient set, and conventionally implicates that the speaker has conclusive objective evidence for the truth of the proposition conveyed. We have also shown that there is an ambiguity associated with certain sentences containing both a demonstrative and epistemic *would*. In such cases, *that* can be anaphoric to either some entity salient in the discourse or to the variable in the OP. Moreover, we have shown how these different meanings have different ramifications for the felicity of infinitival *be* in sentences making reference to past and future events; only when *that* is taken as anaphoric to the variable is infinitival *be* acceptable in these sentences.

Notes

1. For assistance with database construction and coding, we thank Meredith Larson and Elisa Sneed. We also thank them, along with the members of the Fall 2000 Discourse Analysis class at Northern Illinois University, for helpful comments and discussion.
2. Following standard practice, we use “#” to denote a sentence that is pragmatically infelicitous, i.e. one that is grammatical and meaningful, but contextually inappropriate in some way.

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