“Is There Any Coffee Left, Boss?”

Face and Utility Concerns in the Interpretation of Ambiguous Questions/Requests

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Abstract

Requests are often made in an indirect manner, and phrased in such a way that they can also be construed as questions. For example, the sentence “Is there any coffee left?” can be construed either as a question about coffee or as a request for coffee. This paper offers a combined test of some key predictions of two approaches to the disambiguation of question/request statements: (a) The face-management approach, which gives a prominent role to variables such as status and potential face-loss; (b) and the utilitarian relevance approach, which gives a prominent role to the goals pursued by the speaker at the time she issued the statement. Ambiguous questions/requests statements provide a natural test-bed for the latter approach in particular. A board game paradigm is developed to allow for a clean, orthogonal manipulation of all variables. Results wholly support the utilitarian relevance approach and offer new perspectives on the face-management approach.

All of us, everyday, make all sorts of requests—but most of us often choose to make them indirectly. Rather than straightforwardly telling a colleague “Give me another cup of coffee,” we tend to ask “Is there any coffee left?” The issue then arises of how people around us decide whether we simply need an answer to that question, or whether we do want a cup of coffee. In the first part of this article, we review the different answers to that question that have been put forward to date, and the data that support them. Alongside to the politeness-based, face management answer, we outline two relevance-based answers (i.e., post-Gricean, and utilitarian variants). We note that data are scarce about the post-Gricean variant, and almost nonexistent about the utilitarian variant.

We then report two experiments using a board game paradigm, which allows us to test in combination some untested key predictions of the utilitarian and face-management approaches. More precisely, when a statement can be construed either as a direct question or an indirect request, these approaches expect that: (a) The question interpretation is comparatively more frequent when the answer to that question would be highly useful to the speaker; (b) The request interpretation is comparatively more frequent when the fulfilment of that request would be highly useful to the speaker; (c) The request interpretation is comparatively more frequent when the listener’s status is higher than the speaker’s status; and (d) The request interpretation is comparatively more frequent when the listener has a special distaste for impositions.

Face Management

The face-management account of indirect requests derives from Brown and Levinson’s (1978/1987) Politeness Theory, which posits that indirectness is a politeness strategy, and indeed the most polite communicative strategy of all. Requests threaten what Brown and Levinson (1978/1987) call the negative face of the listener, that is, the want of every competent adult member of a society that his actions be unimpeded by others (see also Goffman, 1967). Boldly asking the listener “Give me another cup of coffee” implies an imposition onto him, which threatens his negative face. In contrast, using an indirect form such as “Is there any coffee left?” reduces this imposition by leaving it to the listener to interpret the sentence as a question or as a request. The listener is then free to answer the direct question rather than to fulfill the indirect request.

This conception of indirectness as politeness has straightforward consequences for the interpretation of ambiguous statements: The knowledge that speakers generally use indirectness to prevent a potential face-loss should orient the listener towards the most face-threatening interpretation of an ambiguous statement (Holtgraves, 1998, 1999; Holtgraves & Yang, 1990, 1992; Slugoski, 1995).

This suggests that listeners, when confronted with an ambiguous statement, select the interpretation that is the most threatening for their own face. Now, requests usually threaten the negative face of a listener, while questions do not (or, at least, less so). Thus, all other things being equal, listeners should show some tendency to interpret a statement like “Is there any coffee left?” as an indirect request rather than as a direct question. Still, contextual factors might complicate this simple scheme. In particular, some aspects of the situation might increase the extent to which a request would be face-threatening, as compared to a question. For example, consider the situation where the listener has greater power/status than the speaker, compared to the situation where speaker and listener are of equal social status. According to Brown and Levinson (1978/1987), the need for politeness is greater, all other things being equal, when the listener has greater power than the speaker. Consequently, ambiguous statements of low-
status speaker should be interpreted as indirect requests when they are addressed to high-status listeners, more so than when they are addressed to low-status listeners. We will return to this prediction after we have introduced the Relevance accounts of the interpretation of indirect requests.

Relevance

The Post-Gricean Relevance Theory

The Gricean approach to the interpretation of indirect requests (Grice, 1975) has not been conclusively supported, most notably the crucial assumption that the indirect interpretation of a statement will only be constructed when the literal interpretation has been judged unsatisfactory (Gibbs, 1983; Holtgraves, 1999). This approach has been reconsidered in the post-Gricean approach of Sperber and Wilson (1986/1995), which collapses the various aspects of the Cooperative Principle into one central principle of Relevance: All statements come with a presumption of optimal relevance, in that sense that the speaker is assumed to have maximized the cognitive effects of her statement on the listener, while minimizing the cognitive effort needed to process the message. Interpreting a statement then amounts to following a path of least effort, starting with the least demanding interpretation, and stopping as soon as the cognitive effects of that interpretation are deemed sufficient.

While this framework has been successfully applied to a variety of communicative situations, it does not as easily apply to the problem of question/request disambiguation. Note that the assessment of cognitive effects is quite simple in the case of assertions. Cognitive effects have been defined, e.g., as “a genuine improvement in knowledge” (Wilson & Sperber, 2002, p. 602). Thus, the cognitive effects of an assertion can be assessed by considering how much information it brings to the listener’s attention, to what extent it reduce his uncertainty about the world, etc. In that sense, while it would be easy to assess the cognitive effect of a reply, it is quite difficult to assess the cognitive effects of a question.

Likewise, to characterize a speaker’s request only in terms of what information it brings to the attention of the listener seems to miss the point. What seems crucial in the interpretation of a request is how it relates to the interests of the speaker, rather than to the information state of the listener. Relevance Theory has recently evolved on this problematic point. In their new version of the principle of optimal relevance, Henst and Sperber (2004) specify that the listener will take into account the preferences of the speaker, and keep in mind that the speaker certainly does not mean something that would go against her preferences.

This modification to Relevance Theory introduces the idea that the goals or preferences of the speaker can passively eliminate some possible interpretations of her statement. Taking one step further, we might expect that the goals and preferences of the speaker will actively drive the interpretation of her statement. This idea is at the core of the utilitarian reformulations of relevance.

The Utilitarian Reformulations

Utilitarian reformulations of the notion of relevance have independently emerged in recent years. What they have in common is to define the relevance of a statement in relation to the goals that the speaker is pursuing, more than to its epistemic effects on the listener. The central idea here is that the listener will attend to the goals of the speaker, and select the interpretation of her statement that is the most likely to help her achieve these goals.

This idea has been put forward in several fields by a number of authors. It is at the core of the Conversational Action Planning model of Hilton, Kemmelmeier, and Bonnefon (2005). It forms the basis of the semantics of deontic rules defined in Over, Manktelow, and Hadjichristidis (2004). It is the justification for the “utilitarian heuristic” that Raufaste, Longin, and Bonnefon (in press) have argued to be at work in the interpretation of a variety of speech acts. And finally, it has been formalized by Rooy (2001) in a theory of communicative relevance inspired by game theory.

According to Rooy (2001), to communicate is to attempt to influence others, and each statement is a move towards achieving the speaker’s goals. The “relevance” of an interpretation is defined here as the expected utility for the speaker that her statement is interpreted that way. From that perspective, it becomes easy to compare the relevance of the two possible interpretations of a question/request statement such as “Is there any coffee left?” The relevance of the question interpretation is the average (epistemic) utility for the speaker of the different answers to that question, and the relevance of the request interpretation is the average utility of the actions the listener may take in response. The interpretation with the greater relevance, defined that way, is then selected.

Objectives

Our first objective is to test the key predictions of the utilitarian approach to the interpretation of ambiguous question/request statements. More precisely: (a) The question interpretation is comparatively more frequent when the answer to that question would be highly useful to the speaker; and (b) The request interpretation is comparatively more frequent when the fulfillment of that request would be highly useful to the speaker.

Testing these two predictions requires a systematic and orthogonal manipulation of the speaker’s utilities. To that end, we developed a board game paradigm that allows a rigorously controlled manipulation of these two variables. This paradigm opens up a number of experimental possibilities, and its development is indeed a contribution of its own.

Furthermore, we wish to investigate an untested prediction of the face-management approach: The request interpretation is comparatively more frequent when the listener has higher status than the speaker. Our board game paradigm will allow us to manipulate the status of the speaker and the listener, orthogonally to the manipulation of the speaker’s utilities.
Figure 1: Example of a game situation. Partner status is higher, utility of the swap is low, and utility of the information is low.

Experiment 1

Methods

Participants were 60 volunteer students at the University of Toulouse le Mirail (half men, half women, all in their early 20s). Participants read the rules of a simple board game, which provided a cover story for the experiment. They were told to imagine that this game was played at a corporate seminar, to foster interactions between employees of a firm.

Rules of the game. The board shows four locations in a fictitious city, and the goal of the game is to take control of 3 of these 4 locations. The game is played by two teams of two male players. Each player has two cards in hand, hidden from all other players. The whole deck includes 17 cards: 8 cards bearing the names of the locations (2 cards for each location); 8 gun cards; and one police card. To capture (or recapture) a location, a player must play simultaneously a gun card and the card of this location. The police card is used to definitively block a location: once this card is put on an uncontrolled location, this location cannot be captured for the rest of the game. When it is the turn of a player to play, he first has an opportunity to ask his partner whether he has a given card in hand, or whether he is willing to exchange a given card from his hand for one of the active player’s cards. Once the information or the card is obtained, the player can choose to play or pass.

Once they had familiarized themselves with the rules of the game by studying an example, participants were presented with 8 game situations, according to a $2 \times 2 \times 2$ within-subject design (the entire procedure lasted for some 15 minutes). In all situations, a player of Team A (an employee) was asking his partner: “Do you have the grocery store card?” The board always showed that Team A was in control of the Park, that Team B was in control of the Swimming Pool, and that neither team was in control of the Grocery Store or the City Hall (see Figure 1).

The three independent variables were the Partner Status (higher vs. equal), the Utility of the Swap (high vs. low), and the Utility of the Information (high vs. low). Partner status was higher when the partner was identified as a boss, equal when the partner was identified as another employee. Utility of the swap was high when the player could not capture any location with his current cards, but would be able to capture the Grocery Store if he could obtain this card. It was low if the player could already capture a location with his current cards. Utility of the information was low if knowing the answer to his question was irrelevant to the player’s decision about which action to take. It was high when knowing the answer to his question could help decide which action the player should take.

Utility of the swap and of the information were manipulated by changing the cards of the active player:

1. City Hall & Gun. With these cards, the player can already capture a location: utility of the swap is low. Furthermore, knowing whether the partner is in possession of the Grocery Store card bears no consequence on the decision what to do: utility of the information is low.

2. Gun & Gun. Player cannot capture a location, but could do so by exchanging a Gun card for a Grocery Store card: utility of the swap is high. Again, knowing whether the partner is in possession of the Grocery Store card bears no consequence on the decision what to do: utility of the information is low.

3. Grocery Store & Gun. Player can already capture the Grocery Store: utility of the swap is low. On the contrary, knowing whether the partner has the second Grocery Store card from the deck can help to decide whether to capture this location now, as there would then be no risk that it will be recaptured by the other team: utility of the information is high.

4. Police & Gun. Player cannot capture a location, but could do so by exchanging the Police card for a Grocery Store card: utility of the swap is high. However, the mere knowledge that partner does not have the grocery store card can help to make a decision, namely, to use the police card to block the Grocery Store: utility of the information is high.

Once they had considered a game situation, participants judged whether the player was asking for a swap (a request) or simply asking for information (a question). They answered the question. According to you, what does this player want? by checking one of 5 possible response options: I am sure he wants to swap (coded −2), He probably wants to swap, more so than he wants the information (−1), I cannot make up my mind (0), He probably wants the information, more so than he wants to swap (+1), I am sure he wants the information (+2).

Manipulation check

An independent manipulation check was conducted on 15 students, who judged for each of the four card combi-
nations whether it was useful, interesting, and advantageous to the speaker to swap, or rather to obtain the information without swapping. Judgements were expressed on three separate 5-point scales. A 2 × 2 within-group analysis of variance was conducted on the average score across the three scales. The manipulation had the expected effect, $F(1, 14) = 8.1, p < .05$ for the manipulation of utility of the information; and $F(1, 14) = 6.1, p < .05$ for the manipulation of utility of information.

Results and Discussion

Results were analyzed by means of a $2 \times 2 \times 2$ within-group analysis of variance. Table 1 displays the average answers of participants for each combination of the three manipulated factors. The analysis of variance revealed three main effects and no detectable interaction effect. (The analysis did not detect any gender effect.)

The key predictions of the utilitarian approach are well supported by the data. Participants tended to choose the interpretation that served the speaker best. High utility of the swap encouraged participants to interpret the statement as a request, as $F(1, 59) = 47.9, p < .001, \eta^2 = .35$ (we report semi partial $\eta^2$, which are more appropriate and more conservative when using within-subject ANOVA). Average interpretation was $-0.7 (SD=1.0)$ when utility of the swap was high, and $+0.7 (SD=0.8)$ when utility of the swap was low. High utility of the information encouraged participants to interpret the statement as a question, $F(1, 59) = 10.0, p = .002, \eta^2 = .18$. Average interpretation was $+0.2 (SD=0.7)$ when utility of the information was high, and only $-0.3 (SD=0.8)$ when utility of the information was low. In plain contradiction with the face management prediction, higher partner status encouraged participants to interpret the statement as a question, $F(1, 59) = 4.6, p < .05, \eta^2 = .03$. Average interpretation was $+0.1 (SD=0.7)$ when the partner was of higher status, and only $-0.2 (SD=0.7)$ when the partner was of equal status.

Two explanations might be advanced for this surprising result. First, it might be that when the partner is of higher status, a request would be too face-threatening, even if it was made indirectly. As a consequence, participants would not find it conceivable that the speaker made a request, indirectly or otherwise. Second, it might be that lower-status speaker are perceived as generally more likely to ask questions to their superiors, rather than make requests, and that this base rate was factored in the judgments of participants. Indeed, Holtgraves (1994) found that the request interpretation was more frequent when the speaker was of higher status, and provided a similar base rate explanation for this effect.

Experiment 2 was designed to test these two explanations. In Experiment 2, we manipulated the face-threat to the listener by manipulating his personality orthogonally to his status. Consider the case of a high-status listener who is also a control-freak known to have a special distaste for impositions. According to the first explanation, an ambiguous question/request statement addressed to this listener would be extremely unlikely to be interpreted as a request: If the status of this listener already renders a request too face-threatening, his personality only makes things worse. Now, according to the second explanation, the status of the listener and his personality will have opposing influences: The status, through a base-rate effect, encourages a question interpretation; but the personality, in line with the face-management approach, encourages a request interpretation. Indeed, in order to make a request to someone who dislikes receiving orders, one has to be especially polite, because the face of one who dislikes directives is especially threatened by requests, compared with one who does not mind receiving directives. Consequently, ambiguous statements should be more likely to be interpreted as indirect requests when addressed to a listener with a special distaste for impositions.

### Experiment 2

#### Method

Participants were 60 volunteer students at the Champollion University of Albi. They were 17 men and 43 women, all native French speakers, whose ages ranged from 18 to 27 (mean = 20.3, $SD = 2.1$).

Material and procedure were almost the same as in Experiment 1. The board, the rules of the game, and the statement under consideration did not change. Participants were presented with 8 game situations, according to a $2 \times 2 \times 2$ full factorial design. The **Partner Status** (higher vs. equal) and **Partner Personality** (rigid vs. flexible) were visually and verbally manipulated, by presenting participants with a cartoon depicting the partner, together with a description of this partner’s status and personality (see Figure 2).

Finally, as a control, two different game situations were used in the experiment. In the first one, both the utility of the swap and of the information were high (i.e., the active player’s cards were Police and Gun); in the second one, both the utility of the swap and of the information were low (i.e., cards were City Hall and Gun). Just as in Experiment 1, after participants had considered each game situation, they judged whether the player was requesting a swap or simply asking for information.
In line with the utilitarian reformulation of relevance, when both utilities were low, and the information were high, F finally, participants tended to interpret the statement as a request, p = 0.7 when partner was of higher status, and only when partner was rigid. Conversely, and just as in Experiment 1, higher partner status encouraged participants to interpret the statement as a question, F(1, 22) = 21.2, p < .01; and it was higher when partner had a rigid personality (F(1, 22) = 49.3, p < .01). No other effect was detected.

**Results and Discussion**

Results were analyzed by means of a 2 × 2 × 2 within-group analysis of variance. Table 2 displays the average answers of participants for each combination of the three manipulated factors. The analysis of variance revealed three main effects and no detectable interaction effect. (The analysis did not detect any gender effect.)

In line with the face management approach (and the base-rate explanation of the effect of status), rigid partner personality encouraged participants to interpret the statement as a request, F(1, 59) = 8.62, p = .005, η² = .08. Average interpretation was +0.2 (SD=.6) when partner was flexible, and only −0.3 (SD=.8) when partner was rigid. Conversely, and just as in Experiment 1, higher partner status encouraged participants to interpret the statement as a question, F(1, 59) = 3.7, p = .058 η² = .03. Average interpretation was 0.0 (SD=.7) when partner was of higher status, and only −0.2 (SD=.6) when partner was of equal status. Finally, participants tended to interpret the statement as a request when both the utilities of the swap and of the information were high, F(1, 59) = 16.7, p < .001, η² = .17. Average interpretation was +0.3 (SD=1.0) when both utilities were low, and −0.5 (SD=.7) when both utilities were high.

We do not wish to extrapolate too much from the unexpected effect of the values of utility in conflict. More likely than not, this effect is simply due to some noise in the manipulation of the utility (e.g., the useless request might be perceived as even less useful than the useless question.)

**Conclusion**

The interpretation of indirect statements in general, and of ambiguous question/answer in particular, is a notoriously difficult problem. In two experiments, we have found support for key untested predictions of the utilitarian and face-management approaches.

1. In line with the utilitarian reformulation of relevance, the question interpretation is comparatively more frequent when the answer to that question would be highly useful to the speaker.

2. In line with the utilitarian reformulation of relevance, the request interpretation is comparatively more frequent when the fulfillment of that request would be highly useful to the speaker.

**Manipulation check**

A manipulation check was independently conducted on 23 other students, who were told about the rules of the game and judged for each of the game partner depicted in Figure 2, on six separate 4-point scales, whether this person would find a request for a swap displeasing, hurtful, and offensive; and whether this person would find a question about his cards displeasing, hurtful, and offensive. An index of face-threat was computed by averaging the three ratings for displeasure, hurtfulness, and offensive-ness. Both for questions and for requests, this index was higher when partner status was higher (F(1, 22) = 21.2, p < .01); and it was higher when partner had a rigid personality (F(1, 22) = 49.3, p < .01). No other effect was detected.

An open-minded **employee**, who listens to others, cares about their opinions and ideas. A very touchy **employee** who dislikes receiving orders. He likes to be in control and to impose his point of view.

An open-minded **boss**, who listens to others, cares about their opinions and ideas. A very touchy **boss** who dislikes receiving orders. He likes to be in control and to impose his point of view.

**Figure 2:** Cartoons and descriptions used in Experiment 2 to manipulate the Partner Personality variable. From left to right: flexible employee, rigid employee, flexible boss and rigid boss (descriptions are translated from French).

<table>
<thead>
<tr>
<th>Partner status</th>
<th>Equal</th>
<th>Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utilities in Conflict: Low</strong></td>
<td>Flexible Partner</td>
<td>+0.3 (1.3)</td>
</tr>
<tr>
<td></td>
<td>Rigid Partner</td>
<td>+0.1 (1.5)</td>
</tr>
<tr>
<td><strong>Utilities in Conflict: High</strong></td>
<td>Flexible Partner</td>
<td>−0.3 (1.4)</td>
</tr>
<tr>
<td></td>
<td>Rigid Partner</td>
<td>−0.9 (1.2)</td>
</tr>
</tbody>
</table>
3. In line with the face-management approach, the request interpretation is comparatively more frequent when the listener has a special distaste for impositions;

4. Unexpectedly to the face management approach, but in line with previous findings (Holtgraves, 1994), the question interpretation is more frequent when the listener has higher status than the speaker.

As both the face management approach and the utilitarian approach were shown in this paper to contribute decisively to the issue of ambiguous question/request statements, a natural next step would be to combine these two approaches into an integrated account. This integration was recently taken up by Rooy (2003) at the theoretical level—but everything has still to be done at the experimental level.

One possibility in particular is to integrate politeness considerations in the computation of the expected utility of a statement. Whilst it might be useful for the speaker that the listener complies with her request, the probability of the listener doing so might decrease in the absence of a politeness strategy. Put bluntly, people do not comply to rude requests. As a consequence, the expected utility of a request interpretation (i.e., the utility of the request being fulfilled, multiplied by the probability that the listener will fulfill the request) should be a function of the politeness strategy deployed by the speaker, and of its appropriateness to the context and to the listener.

References


