# Utilitarian relevance and face management in the interpretation of ambiguous question/request statements

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Often, requests are 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 article offers a combined test of some key predictions of two approaches to the disambiguation of question/request statements: (1) the face management approach, which gives a prominent role to variables such as status and potential loss of face; and (2) the utilitarian relevance approach, which gives a prominent role to the goals pursued by the speaker at the time he or she issues the statement. Ambiguous question/request 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. The results wholly support the utilitarian relevance approach and offer new perspectives on the face management approach.

All of us, every day, 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 the politeness-based, face management answer, we outline three relevance-based answers (i.e., the Gricean, post-Gricean, and utilitarian variants). We note that the data are inconclusive for the Gricean variant, scarce for the post-Gricean variant, and almost nonexistent for the utilitarian variant.

We then report two experiments, in which a board game paradigm was used, that allowed us to test in combination some untested key predictions of the utilitarian and face management approaches. More precisely, when a statement can be construed as either a direct question or an indirect request, the utilitarian approach predicts that (1) the question interpretation will be comparatively more frequent when the answer to that question will be highly useful to the speaker and (2) the request interpretation will be comparatively more frequent when the fulfillment of that request will be highly useful to the speaker. The face management approach predicts that (3) the request interpretation will be comparatively more frequent when the listener's status is higher than the speaker's status and (4) the request interpretation will be comparatively more frequent when the listener appears to have a special distaste for impositions.

Before we proceed, we wish to make clear that we will remain agnostic with respect to the exclusiveness of the question and request interpretations. Making sense of an ambiguous question/request statement may imply the simultaneous activation of the two interpretations or the exclusive activation of one interpretation. Now the fact that an interpretation is less frequent in a given context may mean that it is activated by fewer individuals or, alternatively, that it is activated to a lesser degree than the concurrent interpretation. Thus, our general hypotheses are consistent with exclusive, as well as nonexclusive, approaches to ambiguity resolution.

# **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. Note, however, that some authors (e.g., Blum-Kulka, 1987) have questioned the connection between indirectness and politeness, and others (Holtgraves & Yang, 1990) have pointed out that indirectness may sometimes be perceived as manipulative rather than polite. Requests threaten what Brown and Levinson call the negative face of the listener-that is, the desire 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 that he is being imposed upon (for clarity of exposition, we will use the feminine for the speaker and the masculine for the listener throughout this introduction, rather than alternate

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between the two genders), 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 loss of face should orient the listener toward the most face-threatening interpretation of an ambiguous statement. Holtgraves (1998) tested this hypothesis by presenting participants with question-reply exchanges where the reply could not be construed as a straightforward answer to the question (e.g., Question: What did you think of my presentation? Reply: It's hard to give a good presentation). The participants clearly judged that such replies conveyed an indirect, face-threatening meaning for the speaker. Furthermore, when this interpretation was canceled by the context (e.g., the participants were explicitly informed that the presentation had been excellent), the participants found the replies much more ambiguous and difficult to understand (see also Holtgraves, 1999; Holtgraves & Yang, 1990, 1992; Slugoski, 1995).

These results suggest that listeners, when confronted with an ambiguous statement, select the interpretation that is the most threatening for their own face (see also Bonnefon & Villejoubert, 2006, for an application to ambiguous doctor-patient communication). Now requests usually threaten the negative face of a listener, whereas questions do not (or, at least, less so). Thus, all other things being equal, listeners should show some tendency to interpret a statement such as "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 with a question. For example, consider the situation in which the listener has greater power/status than the speaker, as compared with the situation in which the speaker and the 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 speakers 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

Grice's principle of cooperation. According to the original Gricean perspective (Grice, 1975), listeners assume that speakers abide by the cooperative principle, which requires them to be clear, truthful, and on topic and to say neither too much nor too little. If the literal interpretation of a statement appears not to meet these

requirements, listeners derive an implicature based on contextual information, in order to find another, compatible interpretation that preserves the assumption of cooperativeness. Thus, upon hearing a statement such as "Is there any coffee left?" listeners first consider whether the speaker literally meant it as a question—that is, whether this interpretation of the statement meets the requirement of the cooperative principle (e.g., is this the least ambiguous way to phrase such a question?). If not, the listener generates an indirect interpretation, in order to make sense of the statement while preserving the assumption of cooperativeness. Note that face management may be considered as an underlying motive for a cooperative speaker to violate the Gricean maxims. However, for the sake of clarity, we have chosen not to emphasize the complex relations between Gricean pragmatics and face management, because they do not play a critical role in our general argument.

Tests of the Gricean perspective have been inconclusive with respect to its crucial assumption—that is, that the indirect interpretation of a statement is constructed only when the literal interpretation is judged unsatisfactory. Although some data have supported the idea that listeners first construct the literal interpretation of an indirect request or attend primarily to the literal wording of the statement (Clark & Lucy, 1975; Clark & Schunk, 1980), other data have suggested that listeners can compute the indirect interpretation first, independently of literal meaning (Gibbs, 1983). Studies on indirect replies (rather than indirect requests) also have yielded mixed results (Holtgraves, 1999).

The post-Gricean relevance theory. The post-Gricean approach of Sperber and Wilson (1986/1995) collapses the various aspects of the cooperative principle into one central principle of relevance: All statements come with a presumption of optimal relevance, in the 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.

Although 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. Consider again the statement "Is there any coffee left?" To apply relevance theory to this statement, we need to compare its two interpretations on two different dimensions: the cognitive effort needed to construct each interpretation and the magnitude of the cognitive effects each interpretation has on the listener. It is this second assessment that is especially troublesome.

Note that the assessment of cognitive effects is quite simple in the case of assertions. Cognitive effects have been defined as "a worthwhile difference to the individual's representation of the world" (Wilson & Sperber, 2004, p. 608), or "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 reduces his uncertainty about the world, and so forth. In that sense, although it would be easy to assess the cognitive effect of a *reply*, it is quite difficult to assess the cognitive effects of a *question*: Speakers ask questions to obtain information, not to offer it.

A study by van der Henst, Carles, and Sperber (2002) offers a prime illustration of this issue. van der Henst et al. observed that when asked for the time of the day, individuals rely on contextual factors to decide whether they will give the exact time (3:08) or round it to the nearest multiple of five (3:10). That is, they try to optimize the balance between cognitive efforts (processing the exact time is more demanding to the questioner) and cognitive effects (the questioner might need the exact time rather than the rounded time—e.g., when she has an appointment in less than 15 min). Note how easy it is to assess the cognitive effects of the *reply*, in terms of its precision. But assessing the cognitive effects of the question "What time is it?" sensibly improve the listener's representation of the world?

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. In the postface to the 1995 edition of Sperber and Wilson's (1986/1995) work, relevance theory can be seen to have evolved with respect to this problematic point. In their new version of the principle of optimal relevance, Sperber and Wilson specify that the listener takes into account the preferences of the speaker and keeps in mind that the speaker certainly does not mean something that would go against her preferences (see also van der Henst & Sperber, 2004).

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 this one step further, we would 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 that we now will review. Since they switch the focus of relevance from the listener (and his knowledge state) to the speaker (and her preferences and goals), these reformulations make it easier to analyze question/request statements such as "Is there any coffee left?"

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

This idea has been put forward in several fields by a number of authors. It is featured in computational ap-

proaches in which interactants are viewed as rational agents with goals and plans to accomplish those goals, and language comprehension involves recognition of a speaker's goals and the role one might play in the accomplishment of those goals (Cohen & Perrault, 1979; Stone, 2004). It is at the core of the conversational action planning model of Hilton, Kemmelmeier, and Bonnefon (2005), who showed that the perceived goals of an authority (e.g., whether she is concerned with avoiding errors of commission or errors of omission) will determine the way her instructions are interpreted by her employees, independently of their syntactic form (see also Hilton, Villejoubert, & Bonnefon, 2005). It forms the basis for 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 (2006) have argued to be at work in the interpretation of a variety of speech acts. And finally, it has been formalized by van Rooy (2001) in a theory of communicative relevance inspired by game theory.

According to van Rooy (2001), to communicate is to attempt to influence others, and each statement is a move toward achieving the speaker's goals. The *relevance* of an interpretation is defined here as the expected utility for the speaker that her statement be 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 utility for the speaker of the different answers she may obtain, and the relevance of the request interpretation is the average utility of the actions the listener may take in response to the request. The interpretation with the greater relevance, defined that way, is then selected.

Let us consider one last time the statement "Is there any coffee left?" For the sake of simplicity, let us assume that only two answers are possible if the listener interprets it as a question (i.e., "Yes" and "No"), and let us assume that only two behavioral responses are possible if the listener interprets it as a request (i.e., reaches for the coffee or does not). The relevance of the question interpretation is then the average of the utility of learning that there is some coffee left and the utility of learning that there is no coffee left, and the relevance of the request interpretation is the average of the utility of the listener's reaching for the coffee and the utility of the listener's not doing so.

## Objectives

Our first objective was to test the key predictions of the utilitarian approach to the interpretation of ambiguous question/request statements. More precisely, the utilitarian approach predicts that (1) the question interpretation will be comparatively more frequent when the answer to that question is highly useful to the speaker, and (2) the request interpretation will be comparatively more frequent when the fulfillment of that request is highly useful to the speaker.

Testing these two predictions required a systematic and orthogonal manipulation of the speaker's utilities, both for the question and for the request interpretations. To that end, we developed a board game paradigm that allowed a rigorously controlled manipulation of these two variables.

Furthermore, we wished to investigate an untested prediction of the face management approach: The request interpretation will be comparatively more frequent when the listener's status is higher than the speaker's status. Our board game paradigm allowed us to manipulate the status of the speaker and the listener orthogonally to the manipulation of the speaker's utilities.

## **EXPERIMENT 1**

#### Method

The participants were 60 volunteers who were students at the University of Toulouse le Mirail. Half the participants were men, and half were women; all were in their early 20s and were native French speakers. The 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 three of these four locations. The game is played by two teams of two male players [for this reason, we will not use the feminine for the speaker in this experimental section]. 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 players' 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, the participants were presented with eight game situations, according to a  $2 \times 2 \times 2$  full factorial design (the entire procedure lasted for some 15 min). In all the situations, a player of Team A (a male employee) was asking his partner, "Do you



Figure 1. Example of a game situation. Partner status is *higher*, utility of the swap is *low*, and utility of the information is *low*.

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 *partner status* (higher vs. equal), *utility of the swap* (high vs. low), and *utility of the information* (high vs. low). Partner status was higher when the partner was identified as a (male) boss and was equal when the partner was identified as another (male) 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 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 utility of the information were manipulated by changing the cards of the active player.

1. *City hall and 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 for the decision of what to do: *Utility of the information is low.* Since both utilities are low, the statement has to be disambiguated by means of the third variable, status.

2. *Gun and gun*. The 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 for the decision of what to do: *Utility of the information is low*. From the high utility of the swap and the low utility of the question, we predict a request interpretation.

3. Grocery store and gun. The 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 him to decide whether to capture this location now, since there would then be no risk that it will be recaptured by the other team: Utility of the information is high. From the low utility of the swap and the high utility of the question, we predict a question interpretation.

4. *Police and gun*. The 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 the partner does not have the grocery store card can help him to make a decision—namely, to use the police card to block the grocery store: *Utility of the information is high*. Since both utilities are high, the statement has to be disambiguated by means of the third variable, status.

Once they had considered a game situation, the 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 five 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), and *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 combinations whether it was useful, interesting, and advantageous to the speaker to swap or, rather, to obtain the information without swapping. Judgments were expressed on three separate 5-point scales, anchored at *it is more useful/interesting/advantageous for the* speaker to know whether his teammate has the grocery store card in hand and it is more useful/interesting/advantageous for the speaker to obtain the grocery store card by swapping it with his teammate. A 2  $\times$  2 within-group ANOVA was conducted on the average score across the three scales. The manipulation had the expected effect [F(1,14) = 5.78, p < .05, for the manipulation of utility of swap; F(1,14) = 5.76, p < .05, for the manipulation of utility of information]. An interaction effect was also observed  $[F(1,14) = 5.28, p < 10^{-3}]$ .05], suggesting an especially strong contrast between the two utilities in the gun/gun context (see Table 1).

		Utili	ty of the	Informat				
Utility of	Low		High		Overall			
the S	wap	Avg.	SD	Avg.	SD	Avg.	SD	
Low	v	-0.5	1.2	-0.7	1.2	-0.6	1.1	
Hig	h	+1.2	1.4	+0.1	1.2	+0.6	1.2	
Ove	erall	+0.3	0.6	-0.3	0.8			

Note—Negative (positive) scores indicate that the information (the swap) is perceived as more useful.

## Results

The results were analyzed by means of a 2 × 2 × 2 within-group ANOVA. Table 2 displays the average answers of participants for each combination of the three manipulated factors. The ANOVA revealed three main effects and no detectable effect of the interaction between the manipulated factors [F(1,59) < 1, p = .94, for the utility of the swap × utility of the information interaction; F(1,59) < 1, p = .74, for the utility of the swap × partner status interaction; F(1,59) < 1, p > .99, for the utility of the information × partner status interaction; F(1,59) < 1, p = .52, for the three-way interaction].

High utility of the swap encouraged the participants to interpret the statement as a request [F(1,59) = 47.91, p < 100].001,  $\eta^2 = .35$ ; we report a semipartial  $\eta^2$ , which is more appropriate and more conservative when using a withinsubjects ANOVA]. The average interpretation was -0.7(SD = 1.0) when the utility of the swap was high and +0.7(SD = 0.8) when the utility of the swap was low. High utility of the information encouraged the participants to interpret the statement as a question [F(1,59) = 9.98, p = .002, $\eta^2 = .08$ ]. The average interpretation was +0.2 (SD = 0.7) when the utility of the information was high and only -0.3(SD = 0.8) when the utility of the information was low. Finally, higher partner status encouraged the participants to interpret the statement as a question [F(1,59) = 4.59, p < $.05, \eta^2 = .03$ ]. The 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.

#### Discussion

The key predictions of the utilitarian approach are well supported by the data. The participants tended to choose the interpretation that served the speaker best: When

Table 2   Interpretation of the Statement in Experiment 1						
	Partner Status					
	Equal		Higher			
Condition	Avg.	SD	Avg.	SD		
Utility of information: Low						
Utility of swap: Low	+0.3	1.5	+0.6	1.3		
Utility of swap: High	-1.1	1.3	-0.8	1.6		
Utility of information: High						
Utility of swap: Low	+0.8	1.2	+1.0	1.2		
Utility of swap: High	-0.6	1.5	-0.3	1.5		

Note—Negative scores indicate interpretation as a request; positive scores indicate interpretation as a question.

granting the request would serve the speaker well, the participants tended to see the statement as an indirect request; when merely answering the question would serve the speaker well, the participants tended to see the statement as a question. Note that these effects were shown to be additive by our orthogonal manipulation. Statements that were highly relevant as a question, but also as a request, proved especially difficult to interpret and were disambiguated only by considerations of status—only not in the way that we expected they would be.

A surprising finding emerges from the manipulation of status. In plain contradiction to the face management prediction, higher partner status encouraged the participants to interpret the statement as a question, rather than as a request. 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. In the context of the game, participants may consider an implicit "let the boss make the winning move" imperative. Requiring the higher status partner to give up a card and to take a card he possibly would not want would be too much of an imposition (i.e., too much of a negative threat to face): As a consequence, participants would not find it conceivable that the speaker made a request, indirectly or otherwise. An important consequence of this explanation is that any factor that would further increase the threat of losing face to the higher status partner would further increase the tendency to interpret the statement as a question.

There is an alternative explanation for the effect of status, however, that does not make that prediction. This second explanation does not rest on face management considerations but, rather, on a simple base rate effect. Holtgraves (1994) observed that participants tended to interpret ambiguous statements as indirect requests when the speaker was of higher status, and offered the following explanation: Higher status speakers are generally more likely to impose requests on lower status speakers than to ask them questions, and participants will factor this base rate into their interpretations of ambiguous statements. Similarly, it may be that lower status speakers are perceived as generally more likely to ask questions of their superiors, rather than to make requests, and that this base rate was factored into the judgments of the participants in Experiment 1. Note that this mechanism does not directly depend on face management considerations: Although the base rate itself might conceivably be the result of face management concerns, one does not have to be aware of these underlying motives to factor the base rate into one's judgments. An important consequence of this explanation is that any factor that increases the threat of losing face to the higher status partner will *decrease* the tendency to interpret the statement as a question.

Experiment 2 was designed to test the two explanations above, taking advantage of the critical difference in their predictions. In Experiment 2, a second factor was introduced orthogonally to partner status—namely, the personality of the partner, which could make a request more or less of a threat of losing face.

Consider the case of a high-status listener who is also a control freak with a special distaste for impositions. Ac-

cording to the "let the boss win" explanation, an ambiguous question/request statement addressed to this control freak boss would be extremely unlikely to be interpreted as a request: If his higher status already made a request too face threatening, his personality only makes things worse. Now, according to the second explanation (base rate mechanism), the status of the listener and his personality will have opposing influences: The status, through a base rate mechanism, encourages a question interpretation; but the personality, through a face management mechanism, encourages a request interpretation. Indeed, in order to make a request to someone who dislikes impositions, one has to be especially polite, because one who dislikes impositions is especially threatened with loss of face by requests. 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 should, therefore, put us in a position to tease apart the two explanations for the effect of status. If the base rate explanation is correct, we should observe two main effects, one for status and one for personality, working in opposite directions. If the "let the boss win" explanation is correct, we should observe a main effect of status plus an interaction effect: Personality should encourage a request interpretation *only* for partners of equal status.

## **EXPERIMENT 2**

#### Method

The participants were 60 volunteers who were students at the Champollion University of Albi, France. They were 17 men and 43 women, all native French speakers, whose ages ranged from 18 to 27 years (M = 20.3, SD = 2.1).

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

Finally, as a control, two different game situations were used in the experiment. In the first one, the utility of the swap and the utility of the information were high (i.e., the active player's cards were

Table 3
Manipulation Check for Experiment 2: Extent to Which a
Question or a Request Is Perceived As Face Threatening,
As a Function of Partner Status and Personality

Question		Request				
Avg.	SD	Avg.	SD			
1.2	0.5	1.3	0.5			
2.0	0.7	2.1	1.0			
1.2	0.5	1.3	0.6			
2.5	0.8	2.7	0.8			
	Ques Avg. 1.2 2.0 1.2 2.5	Question   Avg. SD   1.2 0.5   2.0 0.7   1.2 0.5   2.5 0.8	$\begin{array}{c c} \hline Question \\ \hline Avg. & SD \\ \hline 1.2 & 0.5 \\ 2.0 & 0.7 \\ 2.1 \\ \hline 1.2 & 0.5 \\ 1.3 \\ 2.5 & 0.8 \\ 2.7 \\ \hline \end{array}$			

police and gun); in the second one, the utility of the swap and the utility of the information were low (i.e., the cards were city hall and gun). Just as in Experiment 1, after the participants had considered each game situation, they judged whether the player was requesting a swap or simply asking for information.

Manipulation check. A manipulation check was independently conducted on 23 students, who were told about the rules of the game and judged for each of the four partners depicted in Figure 2, on six separate 4-point scales (not at all, somewhat, quite so, and very much so), 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 average index of threat to face was computed by averaging the three ratings for displeasure, hurtfulness, and offensiveness. Both for questions and for requests, this index was higher when partner status was higher [F(1,22) = 28.79, p < .001], and it was higher when the partner had a rigid personality [F(1,22) = 53.51, p < .001]. An interaction effect was also observed [F(1,22) = 20.69, p = .001], suggesting that the personality of the partner had an even stronger effect when the partner was of higher status (see Table 3).

#### Results

The results were analyzed by means of a  $2 \times 2 \times 2$ within-group ANOVA. Table 4 displays the average answers of participants for each combination of the three manipulated factors. The ANOVA revealed three main effects and no detectable effect of the interaction between the manipulated factors [F(1,59) < 1, p = .88, for the]partner status  $\times$  partner personality interaction; F(1,59) =1.09, p = .30, for the partner status  $\times$  utilities interaction; F(1,59) = 1.24, p = .27, for the partner personality  $\times$ utilities interaction; F(1,59) < 1, p = .54, for the threeway interaction].



employee, who listens to others, cares about their opinions and ideas.

who dislikes receiving orders. He likes to be in control and to impose his point of view.

boss, who listens to others, cares about their opinions and ideas.



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

AMBIGUOUS QUESTION/REQUEST STATEMENTS	
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Table 4					
Interpretation of the Statement in Experiment 2					
		Part	ner Status		

	Equal		Higher		
Condition	Avg.	SD	Avg.	SD	
Utilities in conflict: Low					
Flexible partner	+0.3	1.3	+0.6	1.3	
Rigid partner	+0.1	1.5	+0.3	1.5	
Utilities in conflict: High					
Flexible partner	-0.3	1.4	-0.0	1.3	
Rigid partner	-0.9	1.2	-0.8	1.2	

Note—Negative scores indicate interpretation as a request; positive scores indicate interpretation as a question.

Rigid partner personality encouraged the participants to interpret the statement as a request [F(1,59) = 8.62, p =.005,  $\eta^2 = .08$ ; we report a semipartial  $\eta^2$ , which is more appropriate and more conservative when using a withinsubjects ANOVA]. The average interpretation was +0.2(SD = 0.6) when the partner was flexible and only -0.3(SD = 0.8) when the partner was rigid. Conversely, and just as in Experiment 1, higher partner status encouraged the participants to interpret the statement as a question  $[F(1,59) = 3.73, p = .058, \eta^2 = .03]$ . The average interpretation was 0.0 (SD = 0.7) when the partner was of higher status and only -0.2 (SD = 0.6) when the partner was of equal status. Finally, the participants tended to interpret the statement as a request when the utilities of both the swap and the information were high [F(1,59) = 16.71, $p < .001, \eta^2 = .17$ ]. The average interpretation was +0.3 (SD = 1.0) when both utilities were low and -0.5 (SD =0.7) when both utilities were high.

## Discussion

Experiment 2 replicated the finding that higher partner status encourages participants to interpret an ambiguous statement as a question, rather than as a request. However, in line with the face management approach, the statement is more likely to be interpreted as a request when the partner has a rigid personality and would find a request upsetting. (As was suggested by an anonymous reviewer, indirect requests can also be construed in that context as passive-aggressive ways of dealing with a difficult partner; this interesting point draws attention to how thin the line can be between politeness and passive aggressiveness.) Overall, it seems that participants do select the most face-threatening interpretation of the statement (i.e., they are more likely to see the statement as expressing a request when the partner's personality makes it uneasy to express requests) but that they are also sensible to a base rate effect with respect to a partner's status (i.e., they are more likely to see the statement as expressing a question when it is directed to a higher status partner).

Finally, we do not wish to extrapolate too much from the unexpected effect of high/low utilities in Experiment 2. More likely than not, this effect was simply due to some noise in the manipulation of the utility: The highly useful request may have been perceived as more useful than the highly useful question; or, alternatively, the useless request may have been perceived as even less useful than the useless question. The results of the manipulation check for Experiment 1 would lend support to this explanation.

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# **GENERAL DISCUSSION**

In this article, we considered ambiguous question/ request statements such as "Is there any coffee left?" How does a listener decide whether the speaker has asked a direct question about coffee or whether she has made an indirect request for a cup of coffee?

We considered this problem from two distinct theoretical perspectives. According to the face management approach, the request interpretation should be comparatively more frequent when it is comparatively more face threatening to the listener. According to the utilitarian relevance approach, the request interpretation should be comparatively more frequent when it is comparatively more useful for the speaker to make such a request. The face management approach derives directly from politeness theory, whereas the utilitarian relevance approach is a special case of relevance theory.

We expected that the two approaches would each capture some aspect of question/request disambiguation. More precisely, we expected that (1) the privileged interpretation of the statement is that of the request or the question interpretation which has the greater expected utility for the speaker, and (2) the request interpretation is more frequent when it is more of a threat to face—that is, when the status of the listener is superior to that of the speaker, or the listener is touchy rather than open-minded and likes to be in control rather than caring about other people's opinions.

The first prediction, which had never been tested thus far, was wholly supported by the results of Experiment 1. Contexts that increased the utility of a question encouraged a question interpretation, and contexts that increased the utility of a request encouraged a request interpretation. This result was obtained using a board game paradigm that is, in itself, one contribution of this article. This paradigm enables a clean, orthogonal manipulation of utilities, together with the manipulation of interpersonal variables. Furthermore, it can be extended in many directions, including the possibility of having participants play the game for real, rather than studying game situations, or by varying the perspective that participants are encouraged to adopt. A direction for future research is to generalize our findings to more realistic everyday conditions, using variants of our paradigm in which utilities are made less salient, less centrally important than they currently areand in which participants reason from partial, incomplete information, rather than from exhaustive descriptions of the goals and utilities at stake.

Unexpectedly, the results of Experiment 1 went *against* the hypothesis that higher status listeners encourage the request interpretation. Indeed, the question interpretation was significantly more frequent in such situations. This result was replicated in Experiment 2, which used an even more salient manipulation of status by presenting

participants with cartoons of the characters involved in the situation. However, the results of Experiment 2 supported the face management hypothesis that touchy, control freak listeners, whatever their status, encourage the request interpretation.

In both experiments, partner status had a relatively small effect (explaining 3% of observed variance), especially when compared with the effect of utilities (which together explained more than 40% of observed variance). The effect of partner personality was moderate, explaining about 8% of observed variance. A remarkable feature of the results was that the participants' answers tended to cluster around a value of zero, which denoted an absence of preference between the question and the request interpretations. As a consequence, even a small-impact variable could swing interpretation from question to request or from request to question, illustrating how a small effect size can nevertheless have readily observable consequences.

These results have a number of implications, which we will address in turn. They suggest that the role of the status variable in the face management approach should be rethought and that the concept of individual variation in the sensitivity to face-threatening acts should be developed. They highlight the usefulness of a utilitarian variant of relevance theory that can be used for speech acts that the standard notion of relevance cannot accommodate well. And finally, they raise the question of a unified approach to question/request disambiguation that would subsume the face management and the relevance approaches in a single theoretical framework.

### **Implications for the Face Management Approach**

In our two experiments, the status variable failed to yield its expected effects; in fact, it yielded effects opposite to those predicted by the face management approach: Ceteris paribus, ambiguous question/request statements addressed to a higher status listener tend to be interpreted as questions, not as requests. We argued that this effect of status is best understood as a base rate effect. Holtgraves (1994) suggested that higher status speakers proffer requests to their social inferiors more than they ask them questions; conversely, we can expect that the baseline probability is greater for lower status speakers to ask their social superiors questions than to make requests of them. This baseline probability, factored in question/request disambiguation, is likely to be the explanation of our findings, as well as Holtgraves's (1994).

Although this result calls for a reevaluation of the status variable in the face management approach, it does not call for a reevaluation of the face management approach itself. Indeed, the participants reacted to our manipulation of the listener's personality exactly as would be expected from the face management approach. Note, however, that our manipulation of the listener's personality is an extension of the face management approach to a brand-new territory. We have moved from the standard *intercultural* variation in face threat sensitivity (how threatening is a request in a given culture, as compared with another?) to the *interindividual* variation in face threat sensitivity (how threatening is a request to a given personality type, as compared with another?). Our results show that, with respect to the face management approach to disambiguation, microlevel variations in personality are just as important as macrolevel cultural variations. We believe that this shift in focus bodes well for future psychological investigations of disambiguation, since it opens to interindividual research a whole domain that used to be reserved to intercultural research.

#### **Implications for the Relevance Approach**

Within the framework of standard relevance theory, it is difficult to assess how "relevant" a question or a request is. Although it is safe to assume that an indirect interpretation requires more effort than does a direct interpretation, relevance depends on cognitive effects as well as on cognitive effort, and assessing the cognitive effects of a question or a request is no trivial matter. As we have already noted, it is easy to assess the cognitive effects of the answer to a question. But what exactly counts as the cognitive effect of a *question* is arguably less clear. In this article, we have shown how this difficulty can be overcome by considering the utilitarian relevance of questions and requests in terms of their utility to the speaker, rather than in terms of their cognitive effects on the listener. Experiment 1 has clearly demonstrated the usefulness of this reformulation of the notion of relevance.

Now, not all statements are amenable to an analysis in terms of utilitarian relevance. As we just mentioned, it is likely that questions are better analyzed in utilitarian terms, whereas replies are best analyzed in terms of their cognitive effects. Depending on the ambiguity at hand, either cognitive effect relevance or utilitarian relevance will provide the best predictor of how individuals reach an interpretation. What ambiguity calls for which kind of relevance analysis is certainly an important topic for future research.

## A Theoretical Synthesis?

Our results unambiguously suggest that neither the face management approach nor the relevance approach is selfsufficient when it comes to explaining question/request disambiguation. Part of this disambiguation is captured by considerations of utility (what interpretation would serve the goals of the speaker in that context?), whereas other aspects are captured by face management considerations (is one interpretation especially vexing in that context?).

From these results, it is only natural to consider the possibility of a theoretical integration of the two approaches. In fact, such a theoretical development may emerge from the work of van Rooy (2003), which attempts to couch the face management concepts in the language of game theory. Roughly, polite conversational behavior, such as indirectness, is considered here a signal that the preferences of the speaker and of the listener are not well aligned and that the speaker is incurring the cost of being polite in order to realign those preferences. This account of politeness would make it easier to connect it with the notion of utilitarian relevance, but unfortunately, as has been noted by van Rooy (2003), it makes it more difficult to connect it with the notions of face preservation and the interpersonal

#### AUTHOR NOTE

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