When Can You Ask an Inner Negation Polar Question?

**The Issue.** [2] and [7] show that polar questions where negation is fronted with the auxiliary and there is a negative polarity item (NPI) in its scope are felicitous only in contexts like (1), where there is evidence towards a negative answer. This is unusual, as questions are normally only felicitous when the issue they raise is still open. [6] names these questions *inner negation polar questions*, INPQ, and shows that negative polar questions that license positive polarity items are different.

(1) B is visiting K and J in Chicago while attending CLS.
    
    B: I’d like to take you guys out to dinner while I’m here – we’d have time to go somewhere around here before the evening session tonight, don’t you think?
    
    K: I guess, but there’s not really any place to go to in Hyde Park.
    
    B: Oh really, aren’t there any restaurants around here? (adapted from [6])

[8] show that INPQs differ in their appropriateness conditions from other kinds of negative polar questions, as in (2). B_1 and B_2 are coherent, inquiring about a likely cause for the picnic to fail. The INPQ in B_3 is incoherent, as there is no evidence as to whether it was the absence of guests that caused the failure of the picnic. The openness of the question makes the INPQ infelicitous. Positive polar questions analogous to B’s questions in (1) and (2) are also infelicitous.

(2) A has organized a community picnic yesterday. B doesn’t know how it went.
    
    B: How did the picnic go yesterday?
    
    A: Not so good, actually.
    
    B_1: What happened? Did nobody show up?
    
    B_2: What happened? Did the guests not show up?
    
    B_3: What happened? #Didn’t anyone show up?

A Hamblin/Karttunen-style partition semantics doesn’t provide an explanation for differences between positive and negative polar questions or the differences in (2), as [1] and [8] show, since it assigns the same semantics to negative and positive polar questions. Negative polar questions then provide an area for exploring which contextual factors determine the choice between different question forms and what the division of labor between semantics and pragmatics is in determining these choices. I will pick up the question of how INPQs can be felicitous in contexts where the issue they raise seems already settled. I show that INPQs are only felicitous if this evidence towards an answer is in some way indeterminate. The work here builds on previous studies of the relation between the semantics and pragmatics of polar questions such as [4], [3], [8], [7].

**The Role of Indeterminacy.** Indeterminacy often arises from hedging expressions like *isn’t really* in (1) or ambiguity about how to resolve context dependent aspects of meaning, such as the covert domain restrictions. In (1), K might have excluded from the domain of *any* restaurants that are further away, somewhat expensive or bad. When such indeterminacy is absent, INPQs become infelicitous as shown by (3).

(3) A and B are checking the passenger list of an airplane before leaving.
    
    A: OK, I have checked three times. Everyone who is on the the list is on the plane.
    
    B: #Isn’t anyone left in the waiting area?

Relatedly, INPQs question the evidence. While B_1 and B_2 in (2) are like guesses at what went wrong, B in (1) is checking whether K has excluded restaurants that he might find acceptable. The two observations that (i) there has to be indeterminacy about the evidence and (ii) INPQs question the evidence are connected. The indeterminacy of the evidence determines the extent to which the issue raised by the INPQ is still open. A felicitous question will hence be about the evidence. I will develop a way of representing the impact of indeterminacy on the context and show how in combination with a partition semantics for questions it captures this relation.

**Indeterminacy in Contexts.** The effect of indeterminacy can be understood in terms of Kaplan’s [5] distinction between *character* and *content*. A character is a function from contexts to contents, that fixes context dependent aspects of meaning. Contents are propositions. When there is indeterminacy about how to fix context dependency, as with the domain of *any* in (1), the character isn’t a function, but a relation, mapping the same input into multiple contents. For illustration, assume
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that Tab. 2 represents the context of (1) prior to K’s utterance. All possibilities of different kinds of restaurants existing are open. Tab. 1 gives different possibilities of restricting the domain of

\[
\begin{align*}
a. & \{x \mid \text{x a close, good restaurant}\} : \{w_2, w_3, w_6, w_8\} \\
b. & \{x \mid \text{x a close or distant, good restaurant}\} : \{w_3, w_8\} \\
c. & \{x \mid \text{x a close or distant restaurant}\} : \{w_8\}
\end{align*}
\]

Table 1. Domains for no one in (1) and corresponding propositions

any restaurant. Using these different restrictions for deriving the content of K’s utterances results in propositions of different strength, given on the right in Tab. 1. The presence of these multiple propositions is the effect indeterminacy on the context. This is an extension of ideas in [10], who independently argue that utterances with epistemic modals also introduce indeterminacy via multiple propositions. These different propositions are addressed in replies to them. INPQs do the same by determining partitions that differentiate the propositions arising from indeterminacy.

Indeterminacy and Questioning. A’s INPQ in (1), under the assumption that any is interpreted with the domain in Tab. 1c., determines the partition \([w_8, w_2, w_3, w_6]\). The left cell corresponds to the proposition arising from Tab. 1c., the right one entails the propositions in Tab. 1a. and b. Both yes- and no-answers exclude some proposition arising from Tab. 1 and reduce the indeterminacy. This derives the observation that INPQs address the contextual evidence. Without indeterminacy, the INPQ would not determine a partition. Once indeterminacy is taken into account, the relation between INPQs and the evidence follows from partition semantics and it becomes apparent that INPQs are ‘normal’, in that they cannot be used when the issue they address is settled. What does not follow from the account here is that INPQs are sensitive to evidence towards a negative answer and betray the questioner’s inclination towards a positive answer.

Relation to [8]. [8] argue that INPQs are metaconversational moves used to make sure that the maxim of quality is being observed. The metaconversational character is ascribed to an operator that turns INPQs into degree questions about certainty. Their sensitivity to indeterminacy relates INPQs to a different kind of infringement on Gricean maxims, quantity. More importantly, I show that the relation between INPQs and the contexts they appear in can be understood in terms of a ‘normal’ partition, once the impact indeterminacy is appreciated, suggesting that the bias and sensitivity to negative evidence found in INPQs arises from something other than the nature of the partition they determine.

Conclusion. I argue that the felicity of INPQs and their relation to contextual evidence can be understood in terms of the interaction of indeterminacy and question semantics, but that effects like bias arise from something else. This situation is reminiscent of what has been argued ([9],[3]) to obtain with polar questions containing minimizer NPIs like even or at all, which show a bias towards a negative answer. This bias is generally assumed to arise from the presuppositions of minimizer NPI. The challenge INPQs raise here is that there is no obvious source for such presuppositions.