1. a. How is Sarah still asleep? (manner)
   b. How is Sarah still asleep? (instr.)
   c. How fell it is asleep? (PHQ)

2. a. How did Sarah fall asleep? (MHQ)
   b. How did Sarah fall asleep? (PHQ)
   c. How is Sarah still asleep? (PHQ)

3. a. How did John fix that chair? (MHQ)
   b. How did John fix that chair? (PHQ)
   c. How did John fix that chair? (MHQ)

PHQs are fully compatible with negation, unlike MHQs, which are subjected to weak-island effects. But PHQs resist Neg-contraction to n’t, showing a clear contrast with e.g. why-questions, where Neg-contraction is fine.

4. a. How is Chili’s not? (manner)
   b. How is Chili’s not? (instr.)
   c. How isn’t Chili’s open yet?

5. a. Why isn’t Chili’s open yet?
   b. Why don’t you love this song?
   c. Why hasn’t it snowed yet?

PHQ how freely combines with statives and other predicates that are incompatible with manner/instrument modifiers (Smith 1991, Katz 2000).

**What does a PHQ mean?**

i. PHQ acknowledges the truth of the complete proposition p (maximal TR, with no gaps) under how

j. How did everybody behave? (PHQ)

ii. At the same time, PHQ expresses extreme surprise at the truth of p (‘I thought p was nearly impossible!’)

Suppose VERUM is the source of this ‘extreme surprise’.

- Romero/Han 2004: VERUM is an epistemic operator in C, sometimes contributed by really (She really is asleep).
- [VERUM] = Ap. It is for sure that p should be added to the Common Ground (CG)
- In a PHQ, VERUM could serve to rule out the possibility that there’s some mistake about the truth of p. Including VERUM creates an implicature that p is particularly unlikely or hard to believe.

how > VERUM > p = ‘What causes it to be for-sure that p should be added to CG?’

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**PROPOSITIONAL PHQS, unlike MHQs, have...**

- how initially merged in Spec,CP
- a covert VERUM operator in C

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**Negation, contraction and VERUM**

7) **Negative why-question** (see ex. 5)

   \[ \text{(8) } \text{Why, } \text{t}_i \text{ does John love this song?} \]

   \[ \text{Step 1: Neg raises to T and then to C.} \]
   \[ \text{Step 2: Neg is spelled out as } n’t \text{ if it is a sub-word.} \]
   \[ \text{No VERUM in C, so everything is fine.} \]

8) **Negative yes/no-question** (Romero/Han 2004)

   \[ \text{8a) } \text{Do John love this song?} \]

   \[ \text{Steps 1-2 proceed as in (7).} \]
   \[ \text{Negative yn-question has VERUM in C} \]
   \[ \text{Neg incorporation into C allows NEG > VERUM} \]
   \[ ‘\text{It is for-sure that we should add to CG that you love this song; it’s not for-sure that we should add to CG that you love this song.’} \]
   \[ \text{Q > NEG > VERUM creates bias (speaker already believes you love this song)} \]

9) **Negative PHQ** (see ex. 5)

   \[ \text{9a) } \text{How, } \text{t}_i \text{ does John love this song?} \]

   \[ \text{Unlike in (8), NEG > VERUM is not intended:} \]
   \[ ‘\text{VERUM > NEG > p: John loves this song}’ \]
   \[ ‘\text{How is it for-sure that } p \text{ should be added to CG?}’ \]
   \[ ‘\text{NEG > VERUM > p: John loves this song}’ \]
   \[ ‘\text{How is it not for-sure that } p \text{ should be added to CG?}’ \]
   \[ ‘\text{To avoid NEG > VERUM, Neg is left in situ and spelled out as not.}’ \]
   \[ ‘\text{Note that } n’t \text{ attaches by syntactic head movement, not PF rebracketing or ‘cliticization.’ Semantic effects like (8)-(9) are therefore unsurprising.}’ \]

10) **Embedded negative PHQ**

   \[ \text{I want to know } (i \text{, how } \text{c, VERUM}) \text{ John } \text{t}_i \text{ does John love this song} \]

   \[ \text{Notice that } n’t \text{ is fine here – because no Neg to C, so no danger of NEG > VERUM.} \]
   \[ \text{Step 1: Neg raises to T and stops there.} \]
   \[ \text{Step 2: Neg is spelled out as } n’t \text{ as in (7).} \]
   \[ ‘\text{It’s Neg-to-C raising that causes problems in (5)/(9), not contraction per se.}’ \]

11) **Negative MHQ** (see ex. 4)

   \[ \text{# [MHQ] \text{ How, } \text{t}_i \text{ did John fix that chair?} \]

   \[ ‘\text{Trace of how under Neg correlates with weak-island effects:} \]
   \[ ‘\text{What’s a manner/instrument that John didn’t use to fix the chair?’} \]
   \[ ‘\text{When island effects are removed by context (Kuno 1989),} \]
   \[ ‘\text{Neg-contraction is fine, as expected (no VERUM here!)}’ \]

John tried everything! The real question is, how didn’t he fix the chair?