

On how *how* is used instead of *that*

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Abstract This article examines a construction in English which has hitherto escaped attention in the linguistic literature, whereby a declarative embedded clause is introduced by *how* rather than *that*. We investigate the properties of this construction, revealing that it consists of a definite DP, rather than a simple embedded CP.

Keywords English · How · Free relative

Informal English exhibits a construction in which the wh-word *how* is used in the expression of a proposition rather than a manner:

- (1) They told me **how** the tooth fairy doesn't really exist.
'They told me that the tooth fairy doesn't really exist.'

The construction appears to have largely escaped notice in the linguistic literature: in Legate 2002 I gave a preliminary discussion of the construction, and Caponigro and Polinsky 2008 mention the construction in passing; I have found no other linguistic treatment of this use of *how*. Certain English grammars have recognized the construction, though; for example, Huddleston and Pullum (2002:954) mention this use of *how*:

In very informal style *how* can be used without any trace of its usual manner (or degree) meaning, and in such cases it is arguable that it is no longer an interrogative word but has been reanalysed as a declarative subordinator, a variant of *that* ... *how* here is simply equivalent to *that*

and the online “Keables Guide to Writing” warns not to “confuse *how* with *that*.”¹

¹Redownloaded January 2009 from www.iolani.honolulu.hi.us/Keables/KeablesGuide/PartThree/Letters/H.htm.

In this article, I investigate the properties of this construction, demonstrating that, contrary to the suggestion of Huddleston and Pullum (2002), *how* is not a simple alternate to *that*. I show that the *how*-clause exhibits systematically distinct behaviour not only from the corresponding embedded declarative CP headed by *that* (henceforth *that*-clause), but also from embedded interrogative CPs. Specifically, the *how*-clause behaves as a definite DP with presupposed propositional content. I provide a syntactic analysis of the construction, whereby it resembles a free relative, but lacks internal wh-movement.

Examining the structural properties of the construction, we observe that the *how*-clause has the external distribution of a DP rather than a CP. Like a DP, but unlike a CP, the *how*-clause may be the complement of a preposition:^{2,3}

- (2) a. They told me about **how** the tooth fairy doesn't really exist.
 b. * They told me about that the tooth fairy doesn't really exist.
 c. They told me about the tooth fairy's non-existence.
 d. They were shocked at **how** the tooth fairy doesn't really exist.
 e. * They were shocked at that the tooth fairy doesn't really exist.
 f. They were shocked at the tooth fairy's non-existence.

Naturally occurring examples follow:⁴

- (3) a. And don't you start in on **how** I really ought to be in law enforcement, or something proper.
 (www.ealasaaid.com/writing/shorts/nightchild.html)
 b. He "boasted" about **how** hed never be caught, it says, because he "moved so often." Apparently, "so often" wasn't enough.
 (www.techcult.com/how-not-to-steal-a-celebritys-provocative-photos/)
 c. You think the Democrats are supposed to forgive you for **how** you held their ass hostage to force the confirmations on the Supreme Court that turned it rightward
 (www.jackandjillpolitics.com/2008/10/joe-liebermana-man-without-a-party/)

²The aforementioned Keables Guide to Writing also warns against this usage (www.iolani.honolulu.hi.us/Keables/KeablesGuide/PartThree/Letters/H.htm).

³Propositional *how* is bolded throughout. In constructed examples, grammaticality judgements pertain to the propositional interpretation, unless otherwise indicated. I have found it difficult to construct clauses for which an alternative interpretation is impossible, partially due to the use of *how* meaning "why" (see Tsai 1999 and Tsai and Chang 2010 for this and other interesting uses of *how*). I often use stative predicates like *exist* that are not readily amenable to combination with a manner, or include manner adverbs and/or *because* clauses in constructed examples to disfavour the non-propositional interpretations.

⁴Naturally occurring examples were downloaded (or redownloaded) from the internet in January 2009, unless otherwise indicated. In all such examples, I depend on the context and intuitions to determine whether a manner or proposition interpretation was intended.

- d. I cringe at **how** you think FSB is CPU to memory when it is not.⁵
(www.abxzone.com/forums/f16/q6600-memory-bandwidth-110336.html)
- e. the truth of the matter is that Justin (of Chromogenic) was very hurt by **how** you copied his design with “Chromasia,” and **how** you named your site similarly to his.
(blog.photoblogs.org/2004/08/29/design-imitation-what-response/)
- f. Trai never paid attention to **how** the long distance-firms have nearly identical tariffs, to **how** this is the only segment of the industry where costs are way below the tariffs being charged, or to the fact that despite the access deficit charge payable on incoming international calls falling by over a rupee since February, the settlement rate with international carriers remains unchanged.
(in.rediff.com/money/2005/nov/14guest1.htm)

Notice in this last example the conjunction of (two instances of) *to how* + TP with *the fact that* + TP. Coordination of the *how*-clause itself with a DP is also possible, again supporting analysis of the *how*-clause as a DP:⁶

- (4) a. Trai never paid attention to **how** the long distance-firms have nearly identical tariffs, or the fact that the settlement rate with international carriers remains unchanged.
- b. The drama of Tan Nguyen and **how** his campaign attempted to scare away Hispanic voters from showing up and voting for his opponent, Loretta Sanchez, has been unfolding for a few days now.
(mediagirl.org/media-girl/have-you-noticed-how-republicans-paint-investigations-their-misdeeds-problem)
- c. So he whispered of his bravery, that of a lion’s / **How** my true love was to be Ryan.
(www.poetry.com/dotnet/P8992859/999/1/display.aspx)

(4b, c) also illustrate that the *how*-clause may appear coordinated under the empty case-marking preposition *of*. Additional examples of the *how*-clause with *of* follow:

- (5) a. They approved of **how** Pat apologized contritely for being late.
- b. * They approved of that Pat apologized contritely for being late.
- c. They approved of Pat’s contrite apology.
- d. Not to mention I don’t approve of **how** you fib about how many horses you have or how much money you have, or **how** you constantly beg for more horses or more money.
(www.equination.net/forum/viewtopic.php?p=262880&sid=5c0d83311595420d4d6a959fae5e813c)

For predicates that allow either a CP complement or a PP complement, the *how*-clause occurs in the PP:

⁵Thank you to Charles Yang for judgements on this example.

⁶The Keables Guide to Writing warns against this (www.iolani.honolulu.hi.us/Keables/KeablesGuide/PartThree/Letters/H.htm).

- (6)
- a. I fretted about **how** the tooth fairy doesn't exist.
 - b. I fretted that the tooth fairy doesn't exist.
 - c. * I fretted **how** the tooth fairy doesn't exist.
 - d. I'm embarrassed of **how** I changed seats because he appeared while sleeping to be dangerous, hectic.
(W08: columns.ink19.com/flashfictions/actFive.html)
 - e. I'm embarrassed that I changed seats because he appeared while sleeping to be dangerous, hectic.
 - f. * I'm embarrassed **how** I changed seats because he appeared while sleeping to be dangerous, hectic.
 - g. I've always complained about **how** I'm not made for this world and **how** they stop making things that I really appreciate like the certs mints, ice cream, etc.
(W08: www.sixf00t4.com/article604.html)
 - h. I've always complained that I'm not made for this world and that they stop making things that I really appreciate like the certs mints, ice cream, etc.
 - i. * I've always complained **how** I'm not made for this world and **how** they stop making things that I really appreciate like the certs mints, ice cream, etc.

Finally, the *how*-clause cannot appear in positions not assigned case:

- (7)
- a. * It was conceded **how** the tooth fairy doesn't exist.
 - b. It was conceded that the tooth fairy doesn't exist.
 - c. * It was conceded the tooth fairy's non-existence.

In sum, for purposes of c-selection and case, *how* clause behaves as a DP rather than a CP.

Furthermore, the *how*-clause does not behave for s-selectional purposes as a (concealed) question. It does not appear with predicates that only select for a question, even those that allow DP complements:⁷

- (8)
- a. It depends on whether the tooth fairy really exists.
 - b. It depends on the tooth fairy's existence.
 - c. * It depends on **how** the tooth fairy really exists.
 - d. They asked what time it was.
 - e. They asked the time.
 - f. * They asked **how** it was 3:33pm.
 - g. They don't give a damn (about) whether the tooth fairy really exists.

⁷See Grimshaw 1979 and Pesetsky 1991 for discussion of predicates that s-select for a question or proposition.

- h. They don't give a damn about the tooth fairy's existence.
- i. * They don't give a damn about **how** the tooth fairy really exists.

In contrast, it does appear with those predicates that s-select for a proposition and allow DP complements:

- (9) a. It's too bad about the fact that the tooth fairy doesn't exist.
- b. It's too bad that the tooth fairy doesn't exist.
- c. * It's too bad (about) whether the tooth fairy exists
- d. It's too bad about **how** the tooth fairy doesn't exist.

Moving beyond its behaviour for selectional purposes, consider additional properties of the construction that distinguish it from *that*-clauses and embedded questions. Let us begin with extraction from within the *how*-clause. From the presence of *how*, we might have expected the clause to pattern with *wh*-questions and form a weak island. Instead, it forms a strong island. Extraction from inside the *how* clause is impossible not only for adjuncts but also for objects. This is illustrated in the following data. I compare extraction from *how*-clauses with extraction from *that*-clauses, *whether*-questions, and *how*-interrogatives.⁸ Adjunct extraction is ungrammatical from the *how*-clause and the embedded interrogatives:

(10) Adjunct Extraction

- a. They told me **how** she believes the teacher just because he's nice.
- b. * It was just because he's nice that they told me **how** she believes the teacher *t*
- c. cf: It was just because he's nice that they told me that she believes the teacher *t*
- d. cf: * It was just because he's nice that they asked me whether she believes the teacher *t*.
- e. cf: * It was just because he's nice that they asked me how thoroughly she believes the teacher *t*.

(11) Adjunct Extraction

- a. They told me **how** she lied because she was afraid.
- b. * Why did they tell you **how** she lied *t*?
- c. cf: Why did they tell you that she lied *t*?
- d. cf: * Why did they ask you whether she lied *t*?
- e. cf: * Why did they ask you how convincingly she lied *t*?

Object extraction is weakly ungrammatical for the embedded interrogatives, as expected from these weak islands, but strongly ungrammatical for the *how*-clause:

⁸The *how*-clauses are constructed to disfavour a manner interpretation, while the *how*-interrogatives are constructed to force a manner interpretation.

(12) Object Extraction

- a. They told me **how** she believes the teacher.
- b. * It was the teacher that they told me **how** she believes *t*.
- c. cf: It was the teacher that they told me that she believes *t*.
- d. cf: ?? It was the teacher that they asked me whether she believes *t*.
- e. cf: ?? It was the teacher that they asked me how thoroughly she believes *t*.

(13) Object Extraction

- a. They told me **how** she buys junk food everyday.
- b. * What did they tell you **how** she buys *t* everyday?
- c. cf: What did they tell you that she buys *t* everyday?
- d. cf: ?? What did they ask you whether she buys *t* everyday?
- e. cf: ?? What did they ask you how regularly she buys *t*?

The status of the *how*-clause as a strong island can be explained if it forms not only a DP, but a definite DP:

- (14) a. They told me the fact that she believes the teacher.
- b. * It was the teacher that they told me the fact that she believes *t*.
- c. They told me the fact that she buys junk food everyday.
- d. * What did they tell you the fact that she buys *t* everyday?

Further support for the definite status of the *how*-clause comes from consideration of presuppositions. As is well discussed in the literature, definite DPs show existence presuppositions (see for example Frege 1892; Russell 1905; Strawson 1950; the details of the surrounding debate need not concern us here). The *how*-clause patterns with definite DPs, and contrasts with the *that*-clause in this respect. The content of the *how*-clause is presupposed, whereas the content of the *that*-clause is not:

- (15) a. # They told me **how** the tooth fairy doesn't really exist, but I don't believe it.
- b. cf: They told me that the tooth fairy doesn't really exist, but I don't believe it.

(16) Does the tooth fairy really exist?

- a. # Yes. My parents didn't tell me **how** the tooth fairy doesn't really exist, and they would have told me if she didn't.
- b. cf: Yes. My parents didn't tell me that the tooth fairy doesn't really exist, and they would have told me if she didn't.

- (17) a. They didn't tell me **how** the tooth fairy doesn't really exist. → entails that the tooth fairy doesn't really exist.
 b. Did they tell you **how** the tooth fairy doesn't really exist? → entails that the tooth fairy doesn't really exist.
 c. cf: They didn't tell me that the tooth fairy doesn't really exist. → does not entail that the tooth fairy doesn't really exist.
 d. cf: Did they tell you that the tooth fairy doesn't really exist? → does not entail that the tooth fairy doesn't really exist.

The behaviour of *how*-clauses for negative polarity licensing also supports the status of the *how*-clause as a definite DP, and further distinguishes the *how*-clause from embedded interrogatives and *that*-clauses. Negative polarity items inside a definite DP cannot be licensed from outside the DP, (18), whereas negative polarity items inside indefinite DPs and *that*-clauses can be licensed from without, (18), and interrogatives themselves license NPIs, (19).

- (18) a. * Nobody told me the story about anyone.
 b. Nobody told me a story about anyone.
 c. Nobody told me that you believe anyone.
- (19) a. I wonder whether she believes anyone.
 b. I wonder whether any fairies exist.
 c. I wonder how she believes anyone.
 d. I wonder how any animals exist here.

The *how*-clause behaves as a definite DP and unlike *that*-clauses and interrogatives: the *how*-clause does not serve as a licenser for NPIs, and NPIs inside a *how*-clause cannot be licensed by negation outside the clause:⁹

- (20) a. * They told me **how** she believes anyone.
 b. * She told me **how** any animals exist here.
 c. * Nobody told me **how** she believes anyone.
 d. * Nobody told me **how** any fairies exist.

Finally, note that manner free relatives are paraphrased with the definite DP *the way that*, (21). This possibility extends to the *how*-clause, (22).

- (21) a. They told me how you worded the letter.
 b. They told me the way you worded the letter.
- (22) a. I hate **how** she believes him full-heartedly.
 b. I hate **the way that** she believes him full-heartedly.
 c. They told me **how** Pat was the one who broke the vase.
 d. They told me **the way that** Pat was the one who broke the vase.

⁹Judgments indicated pertain to the NPI readings.

Naturally occurring examples follow:¹⁰

- (23) a. No one told me **the way that** u sometimes feel judged and underpar by the “helpful” comments and the scrutiny that u get from your parents.
(www.motherandbaby.com.au/forum/viewtopic.php?t=13258&start=15&sid=5efa4db3f97f925dfa25e433f7436ecd)
- b. The film’s message about **the way that** listening and being listened to are essential and life-changing is honest and touching.
(blog.beliefnet.com/moviemom/2008/02/charlie-bartlett.html)
- c. Let’s not talk about **the way that** the lack of regulation of private financial corporations and the government’s incredible indebtedness to same are making government “by the people” into a hollow mockery!
(bitchphd.blogspot.com/2008/03/in-which-i-say-very-little-about-things.html)
- d. Ibn Sayyad travelled between Makkah and Madinah with Abu Sa’id, and complained to him about **the way that** people were saying that he was the Dajjal.
(www.islamworld.net/hour/Six.txt)
- e. Just an upbeat, driving, fun song about karma, about **the way that** what goes around comes around. Eventually, if you do something bad to somebody it’s going to come around somewhere down the road and kick you.
(montgomeryentry.musiccitynetworks.com/index.htm?id=1436&sid=1435)
- f. Your description of the emblematic as a visible symbol of something abstract reminds me of **the way that** after a project, I’ve often applied conversion/abandon data to the user experience maps to show clients the ROI on a project.
(www.boxesarrows.com/view/in-appreciation-of)
- g. I remember when, because of **the way that** Lotus 1-2-3 and Flight Simulator use to write directly to the graphics hardware (bypassing the DOS calls designed to do the same thing), they were also used to benchmark the performance of PCs.¹¹
(blogs.zdnet.com/BTL/?p=3786)
- h. To be clear, I do not object to **the way that** blogs, digg links and Wikipedia rank highly in search results.
(www.micropersuasion.com/2008/02/seo-shenanigans.html)
- i. I believe it would be fair to limit users to only two comments per article or column, similar to **the way that** you limit them to one vote per comment.
(www.sacbee.com/static/weblogs/public_editor/)

¹⁰These examples were retrieved March 2008. Some speakers I consulted found constructed out-of-the-blue examples of this use of *the way that* marginal, hence I provide many naturally occurring examples.

¹¹Thank you to Charles Yang for judgements on this example.

This paraphrase of the *how*-clause further supports the identification of the *how*-clause with a definite DP.

To summarize, we have seen that the *how*-clause patterns with definite DPs, and in contrast to embedded clauses and embedded questions for the following tests: the *how*-clause may appear as the complement of a preposition (including the empty case-marking preposition *of*); can be coordinated with a DP; cannot appear in positions not assigned case; does not appear with predicates that only s-select for a question; does appear with predicates that s-select for a proposition; forms a strong island for extraction; does not license NPIs; does not allow NPIs to be licensed by negation from without; can be paraphrased with *the way that*, and the content of the *how*-clause is presupposed.

Beyond these restrictions, which limit the *how*-clause to environments supporting a propositional DP whose content is presupposed, the *how*-clause enjoys a wide distribution. The following naturally occurring examples illustrate (a subset of) the range of matrix predicates that combine with a *how*-clause.¹²

- (24) a. conjecture:¹³ *admit*, transfer of message: *explain*
Kenneth admitted **how** there are times when he struggles to keep control of his anger. He explained **how**, like Wanda, he tries very hard not to counter rudeness with rudeness.
(www.treacherollins.org/essays/kendraswish.html)
- b. future having: *promise*
I don't want to promise them **how** they can lose weight or get that perfect body; that would be telling a lie.
(funmotivationalspeaker.blogspot.com/2008/10/i-have-vision-to-speak-about-how-fun-it.html)
- c. concealment: *hide*
And Red can't hide from me **how** he likes it, too.
(gutenberg.net.au/ebooks06/0608291.txt)
- d. characterize: *remember*
Remember **How** Whites Were Too Racist to Vote Obama?
(newsbusters.org/blogs/warner-todd-huston/2008/11/07/remember-how-whites-were-too-racist-vote-obama)
- e. perception (see): *notice*
Ever noticed **how** you always have your computer turned on when you realise you need to clean the mouse
(clean-n-go.datamystic.downloadsoftware4free.com/)
- f. psych (admire): *hate*
I hate **how** she claims to be a New Yorker. She is not a native New Yorker!
(alfalasteenya.blogspot.com/2008/08/ten-things-i-hate-about-hillary-9.html)

¹²The classes are based on Levin (1993).

¹³Some of the verbs in this class (e.g. *deny*) do not allow the *how*-clause due to their incompatibility with its presupposition of truth.

- g. psych (amuse): *outrage*
 Chuck Baldwin is outraged by **how** his “conservative” comrades are eagerly granting omnipotent status to politicians, of all people—the very breed whom the Founders warned the citizenry to watch with vigilance.
 (www.issues-views.com/index.php/sect/3003/article/3953)
- h. acquisition of information (learn): *find out*
 Looking for an apartment to buy, we found out **how** apartments are very expensive compared to our income.
 (www.islamonline.net/servlet/Satellite?c=Article_C&cid=1225119313129&pagename=Zone-English)
- i. judgment: *forgive*:
 I can never forgive you for **how** you hurt him and arsed him around, and **how** you thought it would be cool to get me in hospital for expressing an opinion.
 (dodgeman.wordpress.com/2007/01/25/stoled-off-jims-myspace-bulletin/)
- j. manner of speaking: *whisper*
 Whispered **how** we would be together forever
 (www.poetry.com/dotnet/P8992859/999/1/display.aspx)

The range of these (and preceding) naturally occurring examples attest to the breadth of possibilities for the *how*-clause.

Turning towards an analysis, it is important to note that the *how*-clause closely resembles a free relative based on *how* in its behaviour as a definite DP, rather than an embedded CP (propositional or interrogative) (see for example van Riemsdijk 2005 for a summary of the issues surrounding free relatives).¹⁴ As shown in (21) above, a free relative based on *how* can also be paraphrased with a definite DP—the way *that*, and can also appear in the syntactic position of a DP. A significant distinction between the *how*-clause and a *how*-free relative is in terms of the internal structure of the embedded CP. In a *how*-free relative, *how* moves from a CP-internal position, leaving a trace. As expected, this movement can be long-distance, but is disrupted by weak islands (here I use negation to induce Ross’s (1984) inner island effects):

- (25) a. They told me how you worded the letter *t*.
 b. ?? They told me how you didn’t word the letter *t*.
 c. They told me how they think you worded the letter *t*.
 d. ?? They told me how they don’t think you worded the letter *t*.

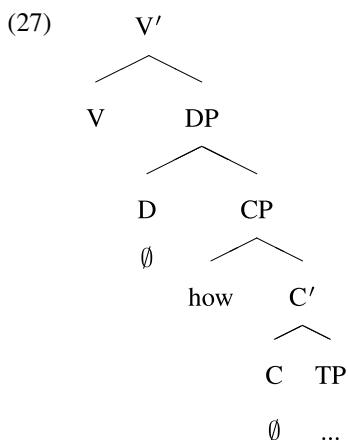
In a *how*-clause, I find no evidence for movement of *how*. Semantically, the embedded clause is complete, with no gap indicating a trace position. Additional layers of embedding do not produce any ambiguity indicative of possible movement from an embedded clause, and weak islands produce no degradation. Notice that the negation inducing the weak island in the following examples is within the least-embedded

¹⁴I discussed the *how*-clause in terms of a free relative in Legate 2002; thank you to an anonymous reviewer for encouraging me to revisit this issue.

clause, thus there would have been no way for *how* to avoid the island if it had moved to its surface position:

- (26) a. They told me **how** you worded the letter properly.
 b. They told me **how** you didn't word the letter properly.
 c. They told me **how** they think you worded the letter properly.
 d. They told me **how** they don't think you worded the letter properly.

I propose the following syntactic structure, whereby a DP headed by a null determiner takes the *how* clause as its complement and *how* is base-generated in its surface position.



A remaining issue is why the manner wh-phrase *how* is used in this construction, rather than any of the other wh-phrases in English.¹⁵ Recall from the previous section that the *how*-clause can be paraphrased through the DP *the way* with a relative clause, (23). This indicates clearly that *how* is coopted for this use because it is the manner wh-phrase, not despite this.¹⁶ This is supported by the observation that the

¹⁵A reviewer suggests that *when* shows a similar possibility in examples like:

- (1) a. Robin told me *(about) when Sam left his computer on the bus.
 b. I remember when Sam left his computer on the bus.

Notice that these *when*-clauses also appear in a DP position (e.g. the complement of *about* above), and also have DP paraphrases:

- (2) a. Robin told me *(about) the time Sam left his computer on the bus.
 b. I remember the time Sam left his computer on the bus.

Further research is required to determine if these are simple free relatives with *when*, or whether they are similar to *how*-clauses in lacking internal wh-movement.

¹⁶It is perhaps worth noting that the relationship between manner and manner and proposition may be observed in an assortment of little-discussed constructions. I cite a few examples here, leaving further typological work and analysis of these constructions to further research. A range of languages use the manner wh-phrase in questions of proposition:

how-clause strategy is not unique to English, but is also found in at least French, Greek, and Hebrew.¹⁷

(1) *Spanish*

- a. A: (inaudible)
 b. B: **Como** dices?
 how say.2sg.Pres
 ‘What did you say?’

English exhibits a similar possibility with ‘how’s that (again)?’:

(2) excerpt from “The African Queen” (1951)

- a. Rose: Could you make a torpedo?
 b. Charlie: **How’s** that, Miss?
 c. Rose: Could you make a torpedo?

Mandarin also allows use of *zěnme* ‘how’ for propositions (Thank you to Charles Yang and Jiahong Yuan for help with the Mandarin data). Notice that *zenme* occurs in the preverbal position expected of a manner adverb, rather than the postverbal position occupied by *shenme* ‘what’ in the paraphrase.

- (3) a. A: wǒ wèn Zhāngsān shéi pǎo de kuài
 I ask Zhangsan who run DE fast
 ‘I asked Zhangsan who runs fast’
 b. B: tā **zěnme** shuō?
 he **how** say
 ‘What did he say?’
 c. cf: tā shuō shénme?
 he say what
 ‘What did he say?’

In Warlpiri, questioning a proposition is uniformly accomplished through use of *nyarrpa* ‘how’ (see Legate 2010, for discussion):

- (4) **Nyarrpa**-rlu-ngku ngarru-rnunjunu-rnu kukurnu-rlu ngaju-ku-pirdangka-rlu?
how-Erg-2sgObj tell-Assoc.motion-Past little.brother-Erg I-Dat-sibling-Erg
 ‘What did my young brother come and tell you?’ (Warlpiri Dictionary Project 1993)

Another plausible use of manner for proposition in English (pointed out to me by Peter Hallman) is *so* in:

- (5) I told you **so**.

Kayne (2008) adds:

- (6) I don’t know **as** I’d say that.

¹⁷Thank you to Valentine Hacquard for assistance with the French data, Sabine Iatridou and Effi Georgala for Greek, and Yael Sharvit and Aviad Eilam for Hebrew.

(28) French

(Mon amie a arrêté une autre femme qui s'en allait en leur direction, les a pointés et . . .)

lui a dit **comment** elle avait reçu un e-mail au boulot l'
 3.DAT have said **how** she had received an email at.the work 3.ACC
 avertissant que quelqu'un se présentait à vous dans un centre d'
 warning that someone 3.reflex introduced to you in a centre of
 achat ou un stationnement, en vous demandant de SENTIR UN
 shopping or a parking.lot in 2.ACC asking to smell a
 PARFUM qu' ils vendent pas cher.
 perfume that they sell not expensive

'(My friend stopped another woman who was going in their direction, pointed to them and . . .) told her how she had received an email at work warning her about someone introducing themselves to you in a shopping centre or parking lot and asking you to smell a perfume that they were selling inexpensively.'
 (www.secuser.com/hoax/2001/parfum_ether.htm)

(29) Greek

mu ipan **pos** arghises
 CL.1PS.GEN.SG tell.PAST.ACT.3PS.PL **how** be.late.PAST.2PS.SG
 sto radevu
 to.the.NEUT.ACC.SG appointment.NEUT.ACC.SG

'They told me how you were late for the appointment.' (Effi Georgala, pc)

(30) Hebrew

em sipru li **eix** ixarta be-sha'ataim la-pgisha
 they told to.me **how** you.were.late in-two.hours to.the-meeting

'They told me how you were two hours late for the meeting.' (Aviad Eilam, pc)

I leave to future exploration why *how* is used in the *how*-clause, and the semantic role, if any, played by *how* in the construction.

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