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Mirative extensions in the postmodal domain

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Abstract

This paper offers a unified analysis of the postmodal meanings of *should* and *would.* It proposes a semantic-pragmatic account based on how these modals function in contexts that yield mirative interpretations. The analysis begins with their use in content clauses under factive predicates and then examines a parallel use in *why*-interrogatives. It also explains why only *would* can produce a mirative reading in the assertive equative construction 'That Would Be X'. The paper argues that these mirative extensions arise from the speaker's knowledge state and their assumptions about the addressee's expectations. The postmodal domain is therefore shaped by pragmatic strengthening within patterns that still preserve aspects of the modals' core semantics. The shift from modality to postmodality marks a move toward the illocutionary level. However, this domain is not uniform: postmodal meanings may represent either the endpoint of grammaticalisation or the emergence of new discourse functions through constructionalisation, as in the TWBX construction.

1. Introduction[1]

This paper examines mirative uses of *should* and *would* in patterns within the postmodal domain, contributing to the debate on characterising modal auxiliaries as constructions or as grammaticalised forms. While mirative extensions arise in similar contexts, their grammaticalisation depends on the modals' original semantics, which are not identical.

The study redefines the 'complementation meaning' of *should* and *would* – described by van der Auwera and Plungian (1998: 93) as postmodal, deriving from epistemic possibility or epistemic necessity and uses it to explain mirative extensions across patterns. A multilayered approach to modality shows how the complementation position can generate

[1] This study grew out of a keynote talk I delivered at the conference on Postmodality and the life cycles of modal expressions held at the University of Caen Normandy in 2022. I thank Evgeniya Gorshkova-Lamy, Adeline Patard and Rea Peltola, the conference organisers, for their invitation and their patience during the editorial process. I am also grateful to the anonymous reviewers and conference participants for their helpful feedback. Any remaining errors are my own.

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mirative readings. Corpus data further demonstrate that illocutionary force can induce similar effects.

Section 2 compares the mirative extensions of *why-would* and *why-should* questions, linking them to the complementation meaning. Section 3 argues that TWBX reflects a postmodal shift, encoding the assumed unexpectedness of the predicative complement. The operationalisation of postmodality enables a unified illocutionary analysis of previously scattered constructions. The semantic profile of *would* supports its postmodal development into the 'That would be X' construction, whereas *should* cannot undergo such a constructionalisation. Moreover, the postmodal domain is not homogeneous: variation arises depending on information structure, and expectation sensitivity (Haspelmath forthcoming) provides a functional motivation for new postmodal constructions.

2. Mirative Extensions of *Should* and *Would* in Content Clauses

2.1. Layers of modality in should *and* would

Should and *would* in content clauses may take on different meanings. In this study, I focus on the meaning that is variously labelled as 'emotive' (Huddleston & Pullum 2002), 'meditative-polemic' (Behre 1950; Behre 1955), 'putative' (Quirk et al. 1985) or 'theoretical' (Leech 2004). These labels are generally applied to *should.* Some studies, however, have emphasised that *would* has a similar use in content clauses. For instance, Jacobsson (1988) notes that British English favours *should* (1), whereas American English prefers *would* in comparable contexts (2). The following dialectal variants may be considered similar in terms of usage[2]:

(1) It's only natural that this decision **should** have been reached. (Jacobsson 1988: 72)
(2) Because the Carters had long been one of the two most prominent families in Plains, it was only natural that Jimmy Carter **would** win a seat on the school board. (Jacobsson 1988: 72)

In (1) and (2), *it's only natural* in the matrix clause introduces an evaluation of the extraposed subject content clause. This evaluative judgement is foregrounded and intended to be accepted as any assertive statement. It is the interplay between the lexical element in the matrix clause and the modal verb in the content clause that is taken as the starting point of this study. The meaning produced by this combination will be analysed as a mirative extension of the original modal meaning.

Mirativity is generally defined as a semantic category that encodes unexpectedness and novelty (DeLancey 1997, Aikhenvald 2012). My conception of mirativity, however, is closer to Zeisler's (2017) and Guentchéva's (2017) definitions of admirativity. Following these authors, I associate mirativity with the marking of an addressee-oriented attitude rather than the encoding of new information. As will be shown in this paper, this attitude, which consists in indicating that some state of affairs deviates from what was or is to be expected, has strong repercussions on the speaker's commitment, which explains why it is highly sensitive to speech acts.

[2] However, it will become clear below that I do not consider them to be semantically equivalent.

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Before addressing the impact of the main predicate on modality in embedded clauses, a characterisation of the primary meanings of *should* and *would* in independent clauses is in order. While modals denote abstract meaning, their modal force may be modified by the pragmatic context. This intrinsic tension has consequences on meaning change. The theoretical issues raised by the use of modals in factual contexts will be addressed once a semantically-based characterisation of *should* and *would* has been laid out. I start by outlining the semantic properties of *should* and *would*, focusing on their difference with respect to past time reference, as this will be deemed crucial to understand their respective postmodal behaviour.

Conceptually, modality denotes a semantic domain that involves necessity and possibility (van der Auwera & Plungian 1998). At the same time, modality is inherently concerned with the speaker's attitude to the factuality or actualisation of a situation (Palmer 1990: 2, Huddleston & Pullum 2002: 173, Narrog 2005). In this respect, *should* and *would* are not symmetrical. A well-known difference between the two modals comes from the role of their preterite morphology. While *would* may refer to the past, i.e., to actualised situations in the past, *should* never does (Bybee 1995: 504; 514). Because *should* conveys a present perspective on a situation, it is classified as a 'modal for the present' by Condoravdi (2002), along with *may, must, might*, and *ought to.* The preterite form contributes modal remoteness, which has consequences on the modal meaning. As Arigne (2007) notes, the modal use of the preterite superimposes an idea of possibility on the primarily deontic meaning of the modal:

(3) You/he **should** go. (Arigne 2007)

While root necessity denotes what seems right to the speaker, the possibility meaning implies that 'other desires are possible', potentially leading to a different course of events. Similarly, in the case of epistemic necessity, it has been pointed out that necessity is 'noncommitted' (Quirk et al. 1985: 227), or that 'the speaker has doubts about the soundness of his /her conclusion' (Leech 2004: 101):

(4) Our guests **should** be home by now. (Leech 2004: 101)

A continuation with 'but they are not at home' is perfectly acceptable. The speaker's inference is tentative as it does not exclude something going wrong. The existence of alternative possibilities has consequences on the nature of the inferred situation. As shown by Rivière (1981), *should* is not compatible with certainty contexts. It can work from an asserted cause to an inferred consequence, in which case the consequence is uncertain:

(5) John is a brilliant student, he **should** pass his exam easily. (Rivière 1981: 181)

But it cannot work from a consequence to a cause, in which case the inferred proposition has a higher level of certainty:

(6) *You know Prof. Fen, you **should** live in Oxford. (Rivière 1981: 183)

Furthermore, as pointed out by Rivière, *should* may be used when the time of the inferred proposition is posterior to the time of utterance, i.e., when the level of certainty is weakened

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by future orientation (5). As stated by Rivière (1981: 186), '[S]hould is used when the inference is most risky, that is to say when the inferred proposition is the consequence and posterior to the time of speaking'.

When *should* is followed by perfect *have*, a temporal ambiguity arises: two temporal readings are possible. They are associated with different types of modality, as shown by Condoravdi (2002) in her analysis of non-root modals. *Should have* tends to convey metaphysical modality, which is concerned with 'how the world may turn out, or might have turned out, to be' (Condoravdi 2002: 61):

(7) He **should** have passed his exam easily.

In that case, the perfect has scope over the modal and a past perspective is conveyed, indicating a past necessity. The epistemic necessity for the subject to pass the exam easily extends to some undefined posterior point located in the past. The implication is that this past necessity was eventually not fulfilled. To put it differently, the reading is counterfactual. However, as noted by Quirk et al. (1985: 235), the counterfactual implication is not systematic:

(8) Have you heard from Maria? She **should** have started her job on Monday. (Quirk et al. 1985: 235)

In contrast to (7), a present perspective on a past situation is here adopted, the modal scoping over the perfect. This perspective shift is associated with a change in the modality type (Condoravdi 2002). The modal conveys epistemic necessity about a past situation, i.e., it has to do with the speaker's knowledge state about a past situation at the time of speaking. The modal taking scope over the perfect makes the counterfactual reading impossible.

The epistemic reading is here facilitated by the question-answer pair. The polar question seeks information about Maria to confirm the speaker's expectation that she was to start her job. By conveying the speaker's ignorance as to whether their expectations were fulfilled or not, the question blocks the counterfactual implication. Although *should have* generally favours a counterfactual reading, the context is essential to determine the speaker's knowledge state. If the context indicates the speaker's ignorance as to some real-world outcome, the counterfactual implication is cancelled, which may give rise to the epistemic reading.[3] Nonetheless, the epistemic reading needs to be supported by contextual elements. Without the preceding question that suspends the speaker's outcome knowledge in (8), the counterfactual reading would obtain, as in (7). It seems, then, that the epistemic reading is not semantically entrenched as the counterfactual reading is. This suggests that *should* imposes its own preferences that only a relevant uncertainty context can disconfirm.

Would patterns differently with tense.[4] In its non-epistemic uses, *would* shifts the perspective to the past based on the speaker's a posteriori knowledge. In the following

[3] The epistemic reading results from uncertainty in the outcome. As pointed out by an anonymous reviewer, uncertainty may also give rise to a contingency reading after *lest* and *in case*, in which the speaker does not indicate their confidence in the truth of a proposition. See Declerck and Reed (2001: 227–229).

[4] *Would* is taken to be the preterite form of the modal *will* and to express necessity. It is beyond the scope of this article to discuss whether *will* is a future or a modal. My approach draws upon other modal treatments of *would*, such as Larreya (2009) or Condoravdi (2002).

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examples, actualised past events are being referred to, involving either dynamic modality or posteriority. The reading is factual:

(9) And we **would** go for walks together or just sit in the garden, talking. (BNC, Davies 2004)
(10) He **would** not allow any of his children to become professional performers. (BNC)
(11) Only a few months later their love **would** change to hate. (Huddleston & Pullum 2002: 197)

Would conveys some necessity that arises from an internal propensity of the subject in (9) or from the internal (non-)volition of the subject in (10). In (11), the future event is posterior to a past situation that serves as reference point. In retrospect, this event is framed as fatal necessity. However, more often than not, the preterite form of *would* introduces modal remoteness, i.e., a distance between the situation referred to and the time of utterance. As suggested by Larreya (2003), the modal preterite presupposes the unreality of a situation. In the following example, the use of *would* presupposes that there is no available proof in reality:

(12) Some proof **would** be helpful here. (TenTen, Jakubíček et al. 2013, Kilgarriff et al. 2014)

The implicit condition is that *if* some proof were provided now or in the future, it would help to believe the story that is being recounted. The status of epistemic *would* is less clear. As a result of modal remoteness, the epistemic use is generally deemed tentative (Palmer 1990) and considered to be a weaker, 'less confident' variant of epistemic *will*:

(13a) He**'d** be about sixty. (Huddleston & Pullum 2002: 200)
(13b) He**'ll** be about sixty. (Huddleston & Pullum 2002: 200)

Yet, it has been claimed that *would* does not necessarily imply uncertainty. Ward et al. (2003) and Ward (2012) rightly argue that the use of *would* is perfectly compatible with the speaker's high level of certainty in a specific equative construction that they label the 'That Would Be X construction':

(14) 'Are you the Meredith that was listed in the Graduate Student News?' 'Yeah, that **would** be me.' (Ward, Birner & Kaplan 2003: 72)

Ward et al. take this modalised assertion to express the speaker's high level of confidence and to concern the present. They further argue that if the demonstrative subject is anaphoric to a past event, *would have* is required to mark past reference:

(15) I had a great time the first time I traveled to Europe. That **would** have been 1992. (Ward, Birner & Kaplan 2003: 78)

To sum up, unlike *should*, *would* may have a past perspective in non-epistemic uses. However, *would* is generally a modal preterite that denotes a hypothetical situation. Nonetheless, it seems that in the TWBX construction, the speaker's claim is based on

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verifiable objective evidence. The judgement encoded by *would* in (14) and *would have* in (15) stands in stark contrast to the epistemic judgement marked by *should* in (4) and *should have* in (8). In (4) and (8), the epistemic judgement is associated with the speaker's high level of uncertainty, whereas the speaker has evidence for the truth of the propositions in (14) and (15). This meaning is puzzling as it contradicts the 'negative truth-commitment' generally attached to a modal preterite form (Leech 2004: 120). In this paper, I use the label 'negative bias' to refer to this negative truth-commitment. I will consider the modal status of *would* in the TWBX construction to be questionable. I will argue in Section 4 that this meaning can be characterised in a unified way if it is related to the postmodal domain rather than the modal domain. At this point, suffice it to say that in independent clauses, *should* and *would* differ as to their factual meaning.

2.2. Modality under the scope of an evaluative factive predicate

We can now examine the impact of evaluative factive predicates on modality in content clauses. I will argue that the interaction of modality with clause phenomena leads to mirative extensions. Crucial in this process is the shift from a priori modality to a posteriori modalisation and from counterfactual to evaluative modalisation (Larreya 2003, 2009). Drawing upon the Kantian distinction between a priori and a posteriori knowledge, Larreya (2009: 24–25) argues that English modals may be used in two ways. In their a priori uses, they indicate that the speaker does not know the truth-value of the modalised proposition, whereas in their a posteriori uses, s/he knows that truth-value. Larreya (2009: 24) points to a difference in the way modality is used, but not in the nature of modality or the inherent meaning of the modals. He also highlights the fact that in this use of modality, both the speaker's knowledge and the hearer's assumed knowledge are taken into account. We will see that the way modality is used may, in fact, lead to meaning change.

Evaluative predicates introduce an additional external layer that specifies the speaker's stance on the embedded content. My focus is on factive predicates, which communicate the speaker's knowledge as to the outcome of the situation denoted in the embedded clause. The matrix predicate may enter into conflict with the meaning of the embedded modal:

(16) PROCLAIM LIBERTY THROUGHOUT ALL THE LAND UNTO ALL THE INHABITANTS THEREOF. It seems strange that these words **should** have been inscribed upon it so long before the bell was rung out to proclaim liberty. Those words were a prophecy of what was to take place in that famous old State House, on that Fourth of July so long ago. (COCA, Davies 2008)

The impact of the matrix predicate on the meaning of the embedded modal can be made clear by reordering the clause structure. If each clause is changed into an independent clause, syntactic independence is reflected at the modal level and the preterite or the past perfect will be used in a factual assertive statement (16a). In that case, *should have* is not felicitous (16b):

(16a) These words **were inscribed/had been inscribed** upon the bell so long before it was rung out to proclaim liberty. This seems strange.

(16b) # These words **should** have been inscribed upon the bell so long before the bell was rung out to proclaim liberty. This seems strange.

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Recall that *should have* presupposes that a past necessity was not carried out (see (7)). However, in (16), given the speaker's knowledge of the outcome, it is already established that the words were inscribed a long time ago, which makes the counterfactual reading unavailable. *Should have* is not indexed to the speaker's here and now. The evaluative judgement conveyed in the matrix clause overrides the negative presupposition of *should have* in the content clause. The meaning of *should have* is affected by the factive predicate because the speaker's present state of knowledge precludes a past perspective.

In the case of *should*, it is the future orientation of the modal that is blocked by the speaker's information state:

(17) She paused, surprised that her own voice **should** be steady. (BNC)

Compare with *should* used without a posteriori knowledge:

(18) My voice **should** be steady.

In (18), as in (4) and (5), *should* conveys uncommitted epistemic necessity, i.e., the speaker cannot rule out the possibility of her voice not being steady in the future. *Should* is indexed to the speaker's here and now. By contrast, in (17), the speaker's emotive and cognitive state follows from her a posteriori knowledge that her voice is steady, which cancels the possibility of an alternative future development.

There is no consensus in the literature on the meaning of *should (have)* in such content clauses. Criticising the concept of low-degree modality proposed by Huddleston and Pullum (2002), Salkie (2009: 97–98) argues that the use of *should* under the scope of factive predicates is 'near-vacuous' as a result of semantic bleaching. I agree that the difference between *should have* in (7) and (16) and *should* in (17) and (18) is not a matter of degree. Due to a posteriori knowledge, *should* loses its ability to convey a judgement on the likelihood of a future situation. Likewise, *should have* loses its ability to convey unfulfilled past necessity. What, then, is the meaning of *should (have)*?

For information structural reasons, the content clause is backgrounded and modality is not tied to the speaker's here and now. The extraposed content clause conveys discourse-old information, while the evaluative judgement in the matrix clause is foregrounded. This judgement takes precedence, either communicating the subject referent's emotive state (17) or highlighting an odd phenomenon (16). In embedded position, the modal has a sense of counterexpectation, which I take as a mirative extension of *should (have).* This derives from the negative bias of preterite modals. In (16), *should have* signals that the situation contradicts the normal course of events: the words would be expected on the Liberty Bell after the Fourth of July, not long before. Similarly, in (17), the situation conflicts with the speaker's expectations. The postmodal domain overlaps with evaluative modality, which does not assess the likelihood of a proposition. *Should (have)* modalises an eventuality arising from a 'fatal necessity' (Behre 1950) against the speaker's (17) or anyone's (16) expectations, highlighting the conflict between events and expected outcomes.

Surprisingly, *should* is more frequent when matrix adjectives indicate that the embedded proposition aligns with the speaker's expectations (e.g., *natural*). At first glance, this seems to challenge the claim that *should* has mirative extensions in content clauses. However, as Celle (2018) shows, these adjectives are either negated (*not surprising*) or appear with

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adverbs (*perfectly/only natural*) indicating a conflict with prior counterexpectations. The evaluative judgement signals that the content accords with expectations after considering prior counterexpectations:

(19) I thought I saw a face in one of the windows – a queer, white face… It scared me – I don't know why. But it's only natural that one **should** see things after eating mousetrap cheese! (BNC, cited in Celle (2018: 45))

The postmodal use of the auxiliary keeps track of prior counterexpectations. The mirative extension operates at the discursive level, which Arigne (2017) classifies as 'discursive mirativity'. Removing *should* neutralises the polemic aspect:

(20) But it's only natural to see things after eating mousetrap cheese.

The extraposed infinitival clause may be purely potential, whereas the modal in (19) encodes the reasoning that led to accepting the idea.

Arigne (2007) argues that this shift from mental resistance to mental acceptance characterises 'multistratal modality', reflecting grammaticalisation. Based on Behre, she shows that *should* after negative evaluative predicates (*sorrow, displeasure*) predates its more 'intellectual' argumentative uses, which derive semantically from emotive factive embedding. Celle (2018: 39) corroborates this: in the BNC and COCA, *should* is more frequent under *natural* than under *strange.* After non-negated emotive adjectives, the frequency drops, with present and past tenses preferred in unmodalised clauses:

(21) If we look at the history of the world, it seems surprising that love **is** included. (BNC)
(22) She had never liked Jenny. That's why it was surprising that Jenny **had** gone to stay at Moorlake in these last months. (BNC)

Changing subordination to coordination clarifies that these situations are factual, independent of the evaluative judgement:

(21a) If we look at the history of the world, love **is** included and this seems surprising.
(22a) Jenny **had** gone to stay at Moorlake in these last months. She had never liked Jenny. That's why it was surprising.

This change alters information structure but not the modal status of the situation targeted by the evaluative judgement. Therefore, this situation is factual, unlike in (16), where modality depends on the matrix clause.

To recapitulate, the situation modalised by *should* is abstracted from a reference frame. A factive predicate presupposes the subordinate clause's truth, but the modal encodes a counterexpectational representation rather than actualisation. Even in factual contexts, *should* does not describe the situation as such. Mirative extensions of *should*, first attested after emotive predicates, may arise in argumentative contexts, tracking preexisting counterexpectations.

We can now compare *should* with *would* to see if they have similar mirative extensions. Jacobsson (1988: 81) notes that *would* and *should* appear in the same syntactic environment, with *should* being more frequent in British English and *would* in American English. After 'it was inevitable', *would* alternates with *should* in both varieties.

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Though not factive, the adjective *inevitable* used in a preterite matrix clause (*it was inevitable*) signals that the embedded situation occurred out of necessity, with the past tense conveying a posteriori knowledge. *Should* is mirative and dependent on the matrix evaluative judgement:

(23) On the other side of the desk was a pile of bills. Of course, it was inevitable that a poet **should** have debts. In fact you could scarcely call yourself an artist if you did not. (COCA)

Should signals that having debts results from a fatal necessity inherent to poets. Though generally undesirable, it is a necessary condition to qualify as an artist. At the discourse level, accepting this necessity explains the bills' presence, marking a cause-consequence relation via modal reasoning.

In contrast, *would* differs from *should* due to its temporal profile and may appear in an independent clause:

(24) 'He liked to hurt people, Jase. It was inevitable that he **would** die a violent death.' 'Were you surprised he left you the money and guardianship over me?' (COCA)

(24a) He **would** die a violent death.

Non-epistemic *would* in subordinate clauses retains its dynamic reference to predictable past situations. The matrix factive predicate can be removed because it does not conflict with the factual content.

Nonetheless, *would* is more ambiguous than *should*: it may also have mirative uses, where the preterite conveys modal remoteness, especially under predicates expressing surprise. Mirative extensions arise in two ways. The content may be counterexpectational:

(25) He found it strange that Gerber **would** commit suicide, but he did hazard a guess as to what might have caused it. 'Perhaps he was worried about what might happen to his research', he said. (COCA)

Here, suicide is a plausible cause, but not assumed by the matrix subject. The evaluation signals counterexpectation.

Or the mirative extension may be evidence-based, when contextual evidence contradicts expectations:

(26) Sabrina turned to ask Salem if he'd like some, but he was snoring. It was so strange that someone **would** enjoy being bored. Salem positively relished it. (COCA)
(27) Perhaps it was strange that the only priest present **would** be the tour guide. (COCA)

In (26) and (27), the embedded situations are factual. The role of the preterite *would* is unclear. One might suggest that the preterite is due to backshifting. However, such an explanation does not hold for *would* embedded under a present predicate:

(28) My God, what are you all doing out here? It just seems so strange that you**'d** all wind up in the same town. (COCA)

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(29) Bandar stepped inside and when he was approached by the shopkeeper, he inquired as to whether there were any insipitators on the premises. The fellow seemed somewhat distracted but said, 'Odd that you **would** ask. We were to have dealt in such goods, but instead we are undergoing another change of orientation.' (COCA)

Present tense in the matrix clause in (28) and the verbless sentence in (29) indicate that the evaluative judgement concerns the present. The modal conveys a present perspective. Conceptually, however, it is difficult to classify this use in terms of modality. It resists paraphrase with the epistemic adverb *probably.* This recent use, first attested in American English, is not documented in reference grammars. Coates (1983: 208) only acknowledges epistemic *would* when a judgement is formed about a past situation:

(30) That **would** be the milkman. (Coates 1983: 208)

Huddleston and Pullum (2002: 200) regard preterite *would* as tentative (see (13a)), but as noted in Section 1.1, *would* also appears in factual contexts with full speaker confidence, corroborating Ward (2012) that *would* has a new use. Spears (1973: 637) and Jacobsson (1988) already noted 'factive *would* complements'.

Factual *would* presupposes the truth of the complement proposition, usually based on context. In (26)–(29), the speaker's judgement relies on objective evidence that is available to any participant in the speech situation. This evidence may be an event (Salem snoring, only one priest being present, the subject referent's presence) or a previous speech act as in (29). In each case, this objective evidence is found to be surprising, which is conveyed by the matrix predicate. *Would* in the embedded clause signals conflict between the experiencer's expections and reality. This mirative extension indicates how the experiencer updates their information state. Here, evidence forces a claim on a state of affairs contradicting expectations. The modal does not signal weakened confidence in the truth of the content, but indicates discordance, hence difficulty in assimilating information that is not fully in the Common Ground. The 'vague element of tentativeness, diffidence, extra politeness' postulated by Huddleston and Pullum (2002: 200) applies at the discourse level.

In sum, there are two meanings of *would* in content clauses. First, non-epistemic past *would* refers to predictable past situations; its factual nature aligns with the matrix factive predicate. Second, mirative *would* marks modal remoteness. The modal may indicate the counterexpectational character of a content the experiencer does not fully commit to. If objective evidence is available, the judgement of incongruity marks the speaker's tentative attitude regarding the discursive integration of unexpected information. The boundary between these meanings may blur under a factive matrix predicate. In (26), for instance, the matrix evaluation generalises from a specific situation. Using *he* instead of *someone* allows a different reading:

(26a) It was so strange that he **would** enjoy being bored. > He **would** enjoy being bored

Direct reference to a specific referent shifts the evaluation to the subject's 'perverse' disposition,[5] possibly independent of the matrix clause. The ability of *would* to refer to past or present and convey predictability or mirativity explains overlap between (26) and (26a).

[5] This term is borrowed from Palmer (1990: 137). Palmer actually refers to 'perverse activity'.

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Finally, in the grammaticalisation of modality, dynamic modality precedes epistemic modality and postmodality (Bybee, Perkins & Pagliuca 1994, van der Auwera & Plungian 1998). Gisborne (2007: 55) further notes that as a subtype of dynamic meaning, the propensity sense of modal *will* is an intermediate stage. Dynamic meaning is 'attenuated by virtue of the generic interpretation'. The predictability sense of *would* allows a semantic shift from dynamic to epistemic modality and postmodality, exploiting its ambiguity in factuality. Originally, dynamic *would* refers to factual past events, whereas epistemic *would* is non-factual. A factive matrix predicate foregrounds factual evaluation, weakening the force of epistemic *would* and overriding its unreality presupposition.

To conclude this section, factive predicates presuppose that the embedded content denotes a factual state of affairs. This presupposition does not conflict with predictability *would*, which retains its meaning under a factive predicate. The situation differs with *should* and epistemic *would.* The factive presupposition conveyed by the evaluative predicate overrides the unreality implication of these modals, weakening their force. The residue of this negative bias results in a mirative extension in the postmodal domain. Importantly, the mirative extension preserves features of each modal's original semantics. With *should*, fatal necessity is recycled at the discourse level to mark contradiction between propositions, encoding processing of backgrounded information from mental resistance to mental acceptance (Arigne 2017).

With *would*, a judgement of incongruity arises from conflict with prior expectations or contextual evidence. The mirative extension of *would* coexists with its propensity meaning. The rich semantic profile of *would* – i.e., its ability to refer to past and present, to reason forward from cause to consequence and backward from consequence to cause – may explain why it has spread into syntactic positions traditionally reserved for *should* (Jacobsson 1988: 84). I argue that pragmatic factors also drive this evolution.[6] Evaluative factive predicates cancel the unreality implication of *should* and epistemic *would*, weakening their modal force. The resulting negative bias gave rise to mirative extensions now routinely associated with content clauses. Grammaticalisation theory supports this, proposing that 'inference or the conventionalization of implicature' drives meaning change (Bybee, Perkins & Pagliuca 1994: 25).

Specifically, it is not just the meanings of *would* and *should* that grammaticalised, but their meanings *in* content clauses. Under a factive predicate, *should* implies contradiction. Once associated with content clauses, mirative meanings may become independent of a matrix predicate (Arigne 2017).[7] In contrast, *would*, with its temporal ambiguity, does not necessarily encode a specific mirative meaning.

Mirative extensions of *should* and *would* are also possible in other contexts, allowing similar inferences. I have identified two such contexts that promote semantic change by precluding the unreality implication of *would* and *should*: open questions and their answers

[6] As stressed by Ziegeler (2000), there does not exist a single diachronic explanation for the various uses of *would.* Focusing on the hypothetical and counterfactual meanings, she argues that the retention of perfectivity is the source of the grammaticalisation process. In the case of the mirative extensions of *would*, I argue that the source of the grammaticalisation process is the retention of the factuality associated with the predictability meaning.

[7] Content clauses containing *should* or *would* may be used as a fronted subject without being extraposed as in the following example borrowed from Arigne (2017): *That anyone* ***should*** *have believed this stuff is, I think, a proof that nothing gives so clear an idea of the infinite as human credulity.* Arigne argues that this 'intellectual' use encodes 'a more elaborate mode of cognition'.

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in the form of TWBX. Corpus data can now help investigate how these mirative extensions are entrenched in pragmatically constrained patterns.

3. *Why-Should* and *Why-Would* Questions

This section discusses the mirative extensions of *would* and *should* in *why*-interrogatives. Both modals show comparable uses in content clauses and open interrogatives. Huddleston and Pullum (2002: 188) note that 'emotive *should* is also found in main-clause interrogatives with the force of rhetorical questions'. Jacobsson (1988: 80; 82) similarly argues that rhetorical *should* (e.g., *Why should he resign?*) developed into the meditative-polemic *should* in content clauses, and that factual *would* derives from hypothetical *would* in *why*-interrogatives. On this view, the complementation meaning represents the final stage of grammaticalisation into the postmodal domain.

My aim, however, is not diachronic. Rather, I explain why the mirative extensions of *would* and *should* arise in certain contexts and why these extensions are not as likely as in complementation position. So far, we have seen that *should* is always mirative under evaluative factive predicates, whereas *would* is ambiguous between predictable and mirative readings. Both modals appear sensitive to speech act contexts: questions, like factive predicates, may block the unreality implications of *should* and non-dynamic *would.* Open interrogatives may therefore provide conditions similar to factive predicates when they presuppose the actualisation of an event.[8]

A corpus study was conducted to determine the frequency and context of mirative *should* and *would* in *why*-interrogatives. A random sample of 200 *why-should* and 200 *why-would* interrogatives was extracted from the English Web 2021 corpus (enTenTen21)[9] using Sketch Engine. The meanings of *would* and *should* were coded so as to capture functional similarities across contexts that induce variation in *why*-questions.[10]

Should was coded as deontic (31) or as epistemic necessity (32) when modality is presupposed:

(31) How can we combat harassment and why **should** we care?
(32) Why **should** we now be able to make a programmatic helpful colleague that works?

Should was coded as discordant when modality is challenged:

(33) If you don't care enough to write a personalised message, then why **should** the MP care what you say.

[8] I consider verbless *why*-fragments to be a different pattern that is beyond the scope of this paper. For a detailed account of *why*-fragments in particular and verbless questions in general, see Fernández-Pena and Perez Guerra (2023) and Bondarenko (2025).

[9] The English Web corpus 2021 (enTenTen21) is a 52 billion-word corpus made up of texts collected from the Internet. The choice of this web corpus is motivated by the need to have a comparable corpus to explore the mirative meaning in both *why-would/should* interrogatives and the TWBX construction. Reference corpora (such as the BNC and the COCA) did not yield enough examples of the TWBX construction.

[10] For space reasons, examples are presented in shortened form and restated with full context in the qualitative analysis section.

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In the mirative use, modality is also challenged, but the context is factual:

(34) So, gold is in backwardation when its interest rate, which is also called the 'gold lease rate', is higher than that of the Dollar. The question is now: why **should** the interest rate of gold be higher than that of the Dollar?

Would was coded as directive in negative questions introducing an invitation to act:

(35) Why **would** you **not** configure the TrackBar to prevent that in the first place?

It was coded as discordant when the logical character of a content is challenged:

(36) Charters don't exist anymore, why **would** they pay to charter a bus when they can commandeer a regular TTC bus in service, much cheaper.

It was coded as mirative when the question contradicts the speaker's expectations in a factual setting:

(37) And finally, the boat was allowed to move forward into Egypt. But it demonstrates just the willful, what can I say, nastiness. I mean, why **would** you not allow sewage pipe to fix a broken sewage treatment plant into a country? Why **would** you do it?

3.1 Quantitative results

Why-should questions show four meanings (see Figure 1). The primary meanings are relatively infrequent: deontic *should* accounts for 12% and epistemic *should* for 1%. The most common meaning is discordance. The mirative extension represents 13%.

As illustrated in Figure 2, *why-would* questions show a mirative extension in 21% of cases – higher than for *should.* Discordant uses dominate (75%), and 4% of negative *why-would* questions are directive.

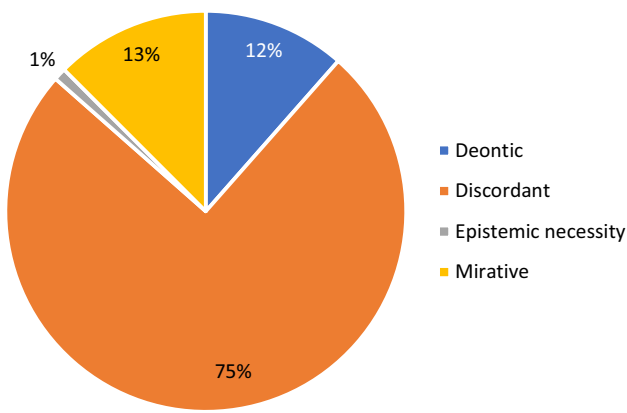


Figure 1. Meaning distribution of *why-should* interrogatives.

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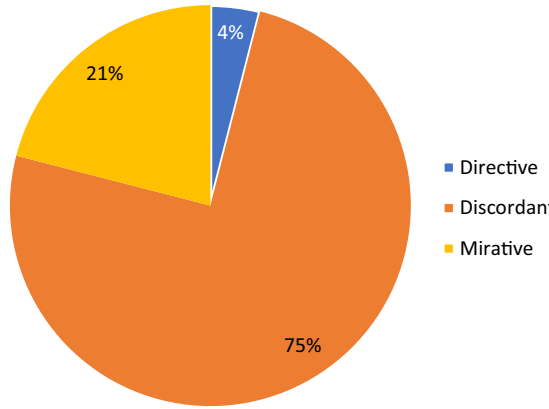


Figure 2. Meaning distribution of *why-would* interrogatives.

3.2. Qualitative analysis

3.2.1. Primary meanings of *should* and *would*

Overall, *should* retains its primary meaning more often than *would* in *why*-questions, although these uses are in the minority. The mirative meaning is more frequent with *would.* Primary uses require pragmatic conditions in which necessity or volition is presupposed as part of the speaker's a priori knowledge, as in (31)–(32). The primary meanings of *should* typically arise in non-interactional instructional settings, where an informative answer is expected to be provided by the speaker:

(31) How can we combat harassment and why **should** we care?
(32) So why did Clippy fail? Why is today different, and why **should** we now be able to make a programmatic helpful colleague that works?

Here, necessity (moral or epistemic) is presupposed, and the question requests its justification. Although compositionally transparent, these questions are non-canonical[11] because the speaker is knowledgeable[12]; the necessity is not at issue, only its grounds. By uncovering these grounds, the speaker aims to convince the addressee of the presupposed necessity.

Negative *why-would* questions with directive reading, e.g., (35), do not ask for reasons but issue invitations to act:

(35) You get different error messages under different circumstances for a reason. My guess would be that one or more of the values are not within the 0–255 range required for a Byte, but why **would** you **not** configure the TrackBar to prevent that in the first place?

[11] The default assumption of a canonical question is that the speaker is ignorant and requests information from a knowledgeable addressee. A non-canonical question arises when this default assumption is overridden by the context, which produces a special discourse effect. See Farkas (2022).

[12] The speaker is knowledgeable because s/he knows the answer to the question. However, their knowledge as to the modal status of the content is a priori knowledge, not a posteriori knowledge, which explains why the modal has its primary meaning.

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An unrealised event is tentatively suggested as desirable: *why would you not p* means *you should p.* Arguably, the volitional meaning of *would* plays a role in the emergence of this meaning. However, the conventionalisation into a directive speech act is accompanied by a subjectification process of the dynamic meaning. While the modal is syntactically linked to the subject, the volitional behaviour is semantically transferred to the speaker.[13] Overall, the primary dynamic meaning arises when the content is discourse-new, while mirative extensions arise when the content is discourse-old.

This indicates that information structure and context determine question type and modal meaning. Under a constructionist approach, such questions would be viewed as constructions. As a test for constructional meaning, Hilpert (2019) puts forward four criteria: deviation from canonical patterns, noncompositional meaning, idiosyncratic constraints and collocational preferences. However, these criteria might be evidence of meaning change, which does not necessarily entail constructional status. I would suggest that there is a continuum from meaning variation and change to constructions. *Why*-questions with primary modal meanings are non-canonical questions. However, the meaning of *should* in these questions is compositionally transparent, which does not seem to be compatible with a constructional status.

3.2.2. Discordant uses of *should* and *would*

Most *why-should* and *why-would* questions (75%) convey a sense of discordance: modality scopes over a discourse-old content and the combination of modality with a *why*-interrogative cancels the normal question-answer presupposition. As Huddleston and Pullum (2002: 900) put it: 'the question is used without the presupposition that characteristically accompanies a question'. The question challenges the necessity of *p*:

(38) In reply to the charge that such an approach reduces literature to sociology, Mura replies: But why **should** we regard such an approach as a reduction? Multicultural literature presents white readers with the opportunity to see human suffering and their proximity to it more clearly through the development of what Mura calls an empathic imagination.

By questioning the necessary character of the view that the multicultural literature approach reduces literature to sociology, the *why*-question implies that there is no reason for that necessity. What follows is not an answer to the question, but a counterargument to the view challenged by the reason question.

Should generally conveys root necessity, as in (38). Necessity is attributed to some source other than the speaker, and the *why*-question challenges the justification for that necessity. Epistemic necessity is less frequent, the *why*-question implying the unlikelihood of a content:

(39) Brand loyalty is what makes it so difficult, and sometimes impossible, for new products to break into the market without massive advertising and huge investments. So why **should** it be any different for books? This is just a guess, but I imagine that most of the readers you run into are well above the par.

[13] This aligns with Hopper and Traugott's (2003) view that the metonymic process accompanying grammaticalisation is based on conversational implicatures.

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Would, as in (36), has a similar effect on the illocutionary force of *why*-questions. Semantically, however, the modality type and the verbs attracted by each modal are related to the primary meaning of each modal. *Be* collocates with the predicative adjective *different* after *should* (*why should it be any different?*) and with comparative adjectives (*why should World 6 be harder than World 7?*). Conversely, after *would*, *be* collocates with adjectives that denote a disposition of the subject (*why would he be interested, inclined, involved, able to*…). Similarly, verbs that denote a disposition of the subject (*bother to, want, need*) co-occur with *would*, while verbs that denote a mental or moral attitude (*expect, believe, trust*) or that express obligation tend to co-occur with *should* (*have to, be allowed, be* + past participle in the passive voice[14]). Modal-verb collocations are in harmony with the modals' primary semantics. In order to challenge the dispositions of a subject, *would* will be preferred to *should*:

(40) More importantly, why **would** you want to live somewhere where it snows that much?
(41) I mean, why **would** they need computer assistance?

These dispositions – here a need or volition – are hypothetically attributed to a subject referent and at the same time discarded by the *why*-question. The question implies that in reality, there is no reason to want to live somewhere where it snows (40), and no need for computer assistance (41).

In sum, discordant questions hypothetically attribute modality only to deny it: *not(modality) p* is implied and the *why*-question attempts to instantiate a variable that cannot be instantiated. These questions are conventionalised rhetorical questions that cancel the question-answer presupposition. However, even in such non-canonical questions, collocation patterns are in modal harmony with the original semantics of each modal, which suggests that the primary meanings of the modals persist within context-induced conventionalised patterns.

3.2.3. Mirative extensions in factual contexts

Mirative *should* and *would* occur in factual contexts where *p* is already established. This is much more frequent with *would* (21%) than with *should* (13%). Like discordant uses, these questions refer to discourse-old information, but *p* is factual. The modal conveys an emotive, counterexpectational meaning:

(34) So, gold is in backwardation when its interest rate, which is also called the 'gold lease rate', is higher than that of the Dollar. The question is now: why **should** the interest rate of gold be higher than that of the Dollar? In my opinion, the answer is obvious: gold is the much better currency, so you should have to pay up to get a loan in it.

(42) Out of all the thousand ways in which we several actors in this human comedy might have gone without crossing each other's paths, why **should** Fate have chosen the only one to bring us thus together? Kitty seemed first to spy me, and greeted me with an enthusiastic waving of her gloves, parasol, veil and handkerchief, all held confusedly, after her fashion, in one hand.

[14] The tendency of *should* to co-occur with a passive infinitive is also pointed out by Cappelle et al. (2019: 231–232).

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In (34), it is clear from the preceding statement that the gold interest rate is higher than that of the dollar. This knowledge is shared by speaker and addressee. The question seeks to elucidate the reason for that counterexpectational state of affairs. The answer resolves the conflict and permits belief revision.

In (42), *should have* refers to the past and communicates that the choice of Fate contradicts the speaker's expectations. The factual context makes the counterfactual reading impossible, as in content clauses embedded under a factive predicate:

(42a) Strange that Fate **should** have chosen the only one to bring us thus together.

The modal encodes epistemic bias[15] by conveying counterexpectation. The answer to the question resolves the conflict and *p* can ultimately make its way into the Common Ground in (34) and (42). However, the sense of contradiction is often supported by other elements than *should*, such as *when*-clauses that denote contrary evidence. If contrary evidence conflicts with *p*, the question implies that there is no reason for *p*:

(43) Seeing the passion of youth to explore nature beyond Gulmarg and Pahalgam, Bazaz thought to guide them. 'Backpacking culture is a trend, why **should** Kashmir lag behind when it has all the ingredients to be a hot spot for expeditions'. Bazaz believes. On the internet, he got in touch with people who share his interests and discussed the idea of guiding the aspiring adventurers.

In light of conflicting evidence, the question is evidentially biased toward a null answer, implying that there is no reason for Kashmir to lag behind. The question-answer presupposition is cancelled, as in the discordant use. The information update requires removing *p* from the Common Ground.

In factual contexts, *why-should* questions are thus biased questions that are compatible with either an information-seeking reading or a rhetorical reading, depending on bias type. If questions exhibit a conflict with prior expectations, i.e., if they are epistemically biased, they seek to instantiate the value of the wh-variable. If, on the other hand, they exhibit a conflict with contrary evidence, i.e., if they are evidentially biased, they are skewed toward a rhetorical reading, implying that there is no reason for *p*. In this respect, *why-should* questions differ from *why-would* questions, which are not compatible with contrary evidence on the mirative construal:

(43a) # Backpacking culture is a trend, why **would** Kashmir lag behind when it has all the ingredients to be a hot spot for expeditions?

In (43a), as in (36), the *why-would* question can only be construed as a rhetorical question, stressing the discordance between a hypothetical situation and the real world. In other words, the inferential process is sensitive to evidence, and contrary evidence renders the situation

[15] The distinction made here between epistemic bias and evidential bias is borrowed from Sudo (2013: 4): 'an epistemic bias is about the speaker's private belief/expectation, while an evidential bias has to do with evidence available in the current conversational context and has to do with a belief that could in principle be shared among the discourse participants'.

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unreal. In factual contexts, the mirative extension of *would* may only result from a conflict between a fact and prior expectations, as in (44) and (45):

(44) very quickly, i had blood work done. the lab said 'the infection is coming from the mouth'. why **would** they say this? they could have said anything. theres no money here to be made from this lab. then i went to the dentist and he checked for cavitations – which is basically dead bacteria.

(45) And curiously, he admitted to installing fencing around the camp. Fencing? Why would a 'FEMA rescue camp' need fencing? The better question is, why **would** they be keeping people out? And why **would** that be the case, since they are a rescue facility? The more likely scenario is what Jesse Ventura found in Texas where the double-fenced property had its barbed wire point in which is a clear indicator that the facility was designed to keep people in against their will.

In (44), the *why*-question refers back to the previous statement (*the lab said*). It asks for the reason for the content of the quotation. The statement that follows the question indicates that evidence is sought to ratify that past claim. In (45), the questions are anaphoric to the admission that fencing was installed around a rescue camp. The questions seek the reason for that fact, which contradicts the belief that a rescue camp is open to refugees. The answer provides an explanation that allows resolving that apparent contradiction by recomputing the definition of a rescue camp. The expectation that fencing is not needed may be revised if a rescue camp is redefined as a prison. In both (44) and (45), the responses to the questions resolve the epistemic contradiction, allowing *p* to become part of the Common Ground.

The contrast between the mirative extensions of *would* and *should* stems from their distinct modal profiles: *would* is fundamentally factual, whereas *should* is putative. In factual contexts, a *why-should* question distances *p* from its reference frame to assess its relevance in the discourse. Rather than encoding a fact, *should* conveys the speaker's representation of a fact by indicating that the necessity of *p* is being evaluated. *Would*, by contrast, extends miratively from an established fact judged to be counterexpectational. As a result, *why-would* questions place such a fact under scrutiny not to challenge its factual status, but to address the issue it raises; they aim to instantiate the wh-variable and cannot be interpreted rhetorically.

In factual settings, both modals yield mirative readings when expectations clash with actual circumstances, but they do so in different ways. With *should*, mirativity arises from a conflict between necessity and prior expectations, prompting a *why-should* question to examine the relevance of *p.* With *would*, mirativity arises from a discrepancy between a fact and the speaker's expectations, leading the question to seek the rationale for that unexpected fact. This distinction likely accounts for the high frequency of *would* in *why-questions* involving purely epistemic reasoning, where the communicative goal is to revise expectations in light of a surprising event.

4. 'That Would Be X': A Mirative Extension as a New Postmodal Meaning

We can now turn to the use of *would* in equative constructions. Adopting a postmodal perspective, my analysis diverges from Ward et al. (2003), Birner et al. (2007) and Ward

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(2012). I argue that this use represents a mirative extension of epistemic *would.* Consider (27) and (27a)-(27b), to compare the paradigm of mirative extensions:

(27) Perhaps it was strange that the only priest present **would** be the tour guide. (COCA)
(27a) Why **would** the only priest present be the tour guide?
(27b) Who is the only priest present? That **would** be the tour guide.

Under Ward et al.'s (2003) account, *would* is epistemic in (27b) and this meaning is said to occur only in independent copular clauses of the form *That would be X.* They propose three conditions (2003: 76): a salient open proposition, instantiation of its variable with a discrete member of a salient set, and a conventional implicature that the resulting proposition is conclusively supported by objective evidence.

However, this postmodal meaning is not restricted to copular sentences, as shown in earlier sections. The requirement of a salient open proposition therefore does not hold for all uses, though it certainly facilitates mirativity in independent declaratives. I agree, however, that objective evidence supporting a factual reading is needed.

To determine the frequency and conditions of use of the TWBX construction, I searched the TenTen corpus for the string following question marks. From a random sample of 200 examples, I manually removed one that contained a *that* relative clause and coded *would* using three labels:

• Tentative
(46) How do most historians refer to it? That **would** be the issue.
• Hypothetical
(47) Why would I? that**'d** be the same as shooting yourself in the foot.
• Mirative
(48) Where is the furthest you two have traveled together as a couple? that **would** be Santorini, Greece for our honeymoon….

The results are shown in Figure 3. Hypothetical readings constitute 79% of all occurrences of *that would be X* after a question mark. Tentative uses account for 4%, and mirative

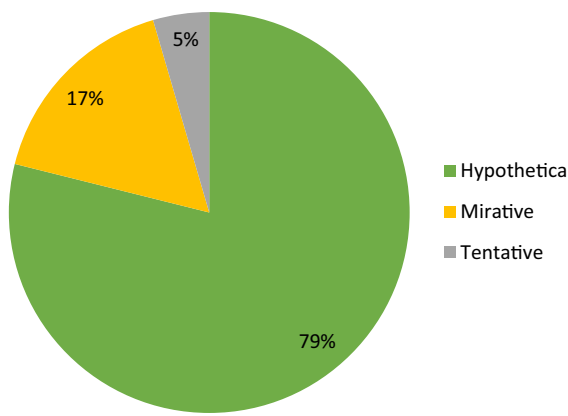


Figure 3. Meaning distribution of TWBX.

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uses for 17%. This indicates that the mirative reading is productive – more frequent than in *why-should* questions and less than in *why-would* questions. Although this rate is not significantly different from mirative *would* in *why-would* questions or from mirative *should* in *why-should* questions, the categorical availability of only *would* provides evidence that the mirative reading of *would* is becoming conventionally associated with the TWBX construction.

I first explain why this construction can be treated as a mirative extension of epistemic *would*, then examine some conventionalised patterns that reinforce this interpretation.

In (48), the speaker expresses strong confidence in the proposition, supported by 'objective evidence'. In such uses, Ward (2012) argues that 'the speaker is making a commitment to the truth of the proposition expressed'. In Ward's experimental data, participants associated unmodalised equatives (*that's John*) with lower certainty than modalised ones (*that would be John*). This contrast requires explanation.

The TWBX construction occurs in contexts that presuppose the truth of the modalised proposition. Preceding questions typically create such contexts. Ward et al. (2003) note that TWBX usually answers a wh-question presupposing that its variable can be instantiated, as in (48). It may also respond to a rising declarative biased toward a positive answer, as in (49):

(49) 'You're the new doctor?' the brunette said with a slight smile. Madison lifted up her medical bag and smiled shyly. 'Yeah, that'**d** be me', she said setting her bag on the table next to where Syd was laying. The brunette took a moment to look the blonde over.

Or it may answer a directive presupposing the existence of an entity whose identification is delayed:

(50) If we are going to have a war on drugs then why not include the number one destroyer of families and killer of innocent victims in car crashes? that **would** be alcohol.

In all these cases, an expectation is assumed on the part of the addressee. *Would* marks that the answer is counterexpectational. In (48), Santorini is presented as unexpected new information. In (49), the speaker acknowledges that her being the new doctor is perhaps unexpected. In (50), the speaker anticipates the addressee's surprise. The conflict between the speaker's certainty and the assumed unexpectedness of the information disclosed to the addressee heightens the salience of that certainty, which may explain why modalised equatives received higher certainty ratings in Ward's (2012) study.

While the truth of the proposition is in no doubt, the speaker's stance may still be considered tentative (see Section 2.2) insofar as the modal signals uncertainty about how counterexpectational information will be integrated into the Common Ground. *Would* acknowledges that successful assertion requires the addressee's uptake; the utterance therefore functions as a proposal to update the Common Ground.

In my data, the strings most frequently interpreted as TWBX are those with the complement pronoun *me* or a number as the postcopular constituent. *That would be me* has become conventionalised as a response indicating both certainty about self-identification and awareness that this information may run counter to the addressee's expectations, often yielding a humorous or provocative effect.

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This conventionalisation follows from inferential judgement based on readily available evidence: in *that would be me*, the inference rests on self-knowledge; with numbers, it results from objectively verifiable calculation, as in (51) and (52):

(51) 400% of what, 30 acres? that **would** be 120 acres…that would be okay by me… problem with numbers is that they don't always paint the whole picture.
(52) One other point, who is congress that kept it secret? that **would** be 535 people. 535 people can't keep a secret.

The mirative extension reflects the speaker's recognition of the addressee's expectations. It arises from the tension between contextual evidence and the anticipation that the information shared cannot simply be taken for granted. Conventionalisation is driven by the inferential process, which becomes part of the construction's meaning. The more objectively verifiable the evidence, the more conventionalised the mirative reading. *That would be me* may thus function as a formulaic phrase incorporating contextual inference (Bybee 2010: 52). Stored as a phrase, it can be used whenever the speaker's assertion is both self-evident to the speaker and assumed to be counterexpectational to the addressee. This development aligns with the pragmatic strengthening described by Traugott (1989: 50–51) as characteristic of epistemic modal auxiliaries. Mirative extensions concern what Traugott terms 'the strategic negotiation of speaker-hearer interaction', and meaning construction can thus be understood as arising from this interactive process.

5. Discussion

The postmodal uses of *should* and *would* point to meaning variation and change. I have distinguished between the grammaticalisation of units in backgrounded contexts and the constructionalisation of units in focal contexts.

The development of mirative extensions under factive predicates corresponds to a well-known crosslinguistic phenomenon. Heine (1993: 31; 40) identifies a set of cognitive event schemas that constitute sources for the grammaticalisation of modal auxiliaries. One of these is the evaluative schema: 'it is X (that Y)'.[16] Under such predicates, the modals are the grammaticalised outcomes of an evaluative pattern. I argue that the outcome is a mirative extension if the predicate is factive. However, the nature of this outcome is language-specific. According to Narrog (2005: 167), such patterns raise the issue of the boundary between modality and mood. In some languages, such as French or Spanish, the subjunctive is used in embedded position to mark 'notions that are, at least traditionally, not identified with modality, such as states-of-affairs that the speaker/writer assumes are *already known by the hearer/reader*' (my emphasis). In Narrog's example *Me alegra que sepas la verdad* 'I am glad that you know the truth', the subjunctive encodes a reality presupposition. In English, the use of modals in embedded position in factual contexts may support Narrog's idea that modality and modal forms are not systematically co-extensive. However, postmodality may provide a better frame to handle such grammaticalised uses in a unified way.

[16] As the purpose of this paper is to provide a better understanding of the relationship between factual contexts and modality, only factive predicates were considered. Directive predicates such as *it is essential*, which is taken as an example by Heine (1993) to illustrate his point, were not explored.

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Factual contexts override the unreality implication of *should* and non-dynamic *would.* This is typically the case in content clauses embedded under factive predicates. In such contexts, the modal force of deontic and epistemic necessity weakens and mirative extensions emerge through inference as residues of negative bias. These extensions encode *counterexpectation*, an epistemic notion. As Plungian (2010: 47) notes, mirativity is 'undisputedly modal, since it reflects one of the various kinds of epistemic evaluation, namely a contradiction to the expectation of the speakers, or, in other words, the fact that the speakers were not prepared to cognitively process the situation they observed'. At the same time, mirative readings also result from *contextual evidence* that induces inference. Jacobsen's (1964: 630) description of a Washo suffix illustrates this: 'the speaker knows of the action described by the verb, not from having observed it occur, but only inferentially from observing its effects. It thus commonly conveys an emotion of surprise'. This abductive reasoning – from effect to cause – is available only with *would. Should* cannot support backward inference from present evidence, and this semantic difference shapes their postmodal behaviour. With *would*, contextual evidence enters the context set and prompts expectation revision. In mirative *why-would* questions, the speaker searches for grounds that justify *p.* In the TWBX construction, the speaker makes a proposal while signalling that its acceptance depends on the addressee's willingness to revise their prior expectations.

This semantic difference also explains why only *would* appears in the TWBX construction. Postmodal *should* in independent declaratives is rare, and its mirative extension differs from that of *would*:

(53) 'He's in good shape.' 'So he **should** be, after three weeks' holiday! (Larreya & Rivière 2010: 120)

The meaning of *should* could easily be glossed in the following way:

(53a) It can finally be expected that he is in good shape after three weeks' holiday.

As discussed in Section 2.2, *should* contributes to discourse cohesion by suggesting that a prior contradiction has been resolved so that *p* can now be accepted. In (53), *so he should be* presents the information as discourse-old and unsurprising, allowing easy integration into the Common Ground. Modality is not tied to the speaker's here and now.

Consider now a scenario where a speaker identifies someone in a picture:

(53b) 'Who is that guy?' 'That **would** be me after three weeks' holiday.'

In (53b), the TWBX construction conveys discourse-new, foregrounded information. Because the addressee fails to recognise the person in the picture, the speaker anticipates surprise or reluctance to accept the assertion *that's me after three weeks' holiday.* This modalisation is forward-looking: the speaker anticipates that the addressee will need to revise their beliefs. *Would* thus signals that speaker commitment alone cannot guarantee the success of the assertion. As many authors point out (Ginzburg 2012: 94; AnderBois 2018), assertions propose information updates that require the addressee's acceptance. *Would* marks the speaker's awareness that such acceptance is not assured. An implicit *if*-clause restricts not the truth of the proposition but the success of the speech act – which, roughly, can be

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paraphrased with *if you are willing to add this to your belief set.*[17] Although non-volitional, this use draws on the primary meaning of *would*, metonymically recycled at the speech act level to yield a construction-specific function.

The TWBX construction shows a categorical restriction: *would* is permitted, while *should* is not. The new meaning of *would* in this construction is innovative in two ways. First, past modals generally evolve toward uncertainty (Ziegeler 2000: 28), but this construction does not express uncertainty, owing to *would*'s primary factual potential. Evidence-based judgement is central instead. Second, this construction qualifies the assimilation of *discourse-new* information in focal position, unlike postmodal forms in complement position, where information is backgrounded. This supports Bybee's (2002: 2; 12) view that main clauses foster innovation while subordinate clauses preserve older meanings. Postmodal forms in complement position show precisely such conservatism, often retaining redundant modality for 'modal cohesion' (Peltola 2021). By contrast, the TWBX construction is rooted in the speaker's here and now and communicates that belief revision is needed to integrate new information.

The meaning of *would* here also shows that the postmodal domain is not merely the endpoint of grammaticalisation through semantic bleaching. It can produce new meanings not predicted by van der Auwera and Plungian's (1998) semantic map, or by grammaticalisation theory more generally. Boye (2023: 289) defines grammaticalisation as 'the conventionalization of discursively secondary status' and most of the mirative extensions discussed fit this definition – except TWBX. Boye (2023: 174; 175; 178; 188) repeatedly notes that metalinguistic contexts override conventions, and thus fall outside his definition; these contexts are precisely the ones that drive constructionalisation. *Would* has developed a new postmodal function as a hedging device, restricted to the illocutionary level rather than the propositional level. This construction can be taken as a 'new connection' of a form and a meaning, following Diewald et al.'s (2021: 89–90) definition of constructionalisation.

The postmodal uses of *should* and *would* show that mirativity may arise from different modal domains. This aligns with Peltola's (2021) comparative findings for French *pouvoir* 'can' and Finnish *pitää* 'should' in subordinate position. As she notes (2021: 175), unexpectedness can be profiled in various ways regardless of 'the modal background of the postmodal auxiliary' and of the 'semantic variation in the (epistemic or axiological) lexical items of the matrix', because 'the postmodal auxiliary crystallizes the semantic link between these units'. The auxiliary recalls conflict and contradiction, contributing to discourse cohesion. Crucially, it appears when syntax or speech act structure limits speaker commitment: in backgrounded position, where information has low communicative value, in *why*-questions, which ask for an explanation for a counterexpectational situation, and in the TWBX construction, where the speaker anticipates the addressee's difficulty in accepting the assertion. All these uses encode the speaker's stance regarding the problematic acceptance of *p*. This supports the idea that expectation sensitivity (Haspelmath forthcoming) drives the evolution of postmodal forms. Counterexpectation may be recalled under a factive predicate, made explicit in a question, or anticipated. In content clauses, a prior conflict is already resolved; in questions, belief revision is sought; in TWBX, *would* encodes the anticipation that counterexpectation will hinder the context set update. The resulting procedural meaning guides the addressee through the update process, supporting the view

[17] I thank an anonymous reviewer for this observation.

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that mirativity encodes an illocutionary update rather than a propositional content (AnderBois 2014). It concerns the metacommunicative acceptance of counterexpectational information: in and of itself, *that would be me* does not convey surprising content, but signals the speaker's awareness that the assertion requires uptake. This suggests that the rise of procedural meaning in a construction goes hand in hand with metacommunication.

6. Conclusion

This paper has examined the reanalysis of *would* and *should* as postmodal markers of unexpectedness. Mirativity was treated as a residue of negative bias in factual contexts that induce the cancellation of non-factive presuppositions. Mirative extensions may originate from different modal domains, yet they all involve illocutionary updating and speaker positioning.

In the postmodal domain, new meanings arise through interactions between discourse levels and a posteriori uses of modals. Postmodality emerges through both the primary semantics of modals and recurrent inference in specific pragmatic contexts. Primary meanings persist and shape new developments.

The postmodal domain includes grammaticalised patterns with weakened modal meaning in backgrounded contexts and constructions with new discourse functions in focal contexts. *Should* is confined to the former: because it is insensitive to evidence and incompatible with factuality, it is discourse-linked and cannot support speaker-anchored, here-and-now postmodal functions. *Would*, by contrast, can form evidence-based judgements and refer to past facts, enabling the innovative TWBX use. In this use, postmodal *would* indexes the speaker's perspective and encodes an illocutionary update proposal. The grammaticalisation of the modal across pragmatically sensitive contexts paved the way for this constructionalisation.

Constructionalisation and the emergence of postmodal meaning proceed together, driven by pragmatic pressures to mark what interlocutors do not expect. New postmodal meanings do not emerge *ex nihilo*. They build on the primary semantics of the modals. This study thus supports the 'meaning first hypothesis' – the idea that 'the main motivation underlying grammaticalization is to communicate successfully' (Heine 2018) and illustrates Haspelmath's (forthcoming) claim that 'grammars code most what comprehenders expect least'.

References

Aikhenvald, Alexandra Y. 2012. The essence of mirativity. *Linguistic Typology.* 16(3). 435–485.

AnderBois, Scott. 2014. On the exceptional status of reportative evidentials. *Proceedings of the 24th Semantics and Linguistic Theory Conference*, held at New York University, May 30 - June 1, 2014, edited by Todd Snider, Sarah D'Antonio and Mia Weigand, 234–254. Linguistic Society of America. https://doi.org/10.3765/salt.v24i0.2424.

AnderBois, Scott. 2018. Illocutionary revelations: Yucatec Maya Bakáan and the typology of miratives. *Journal of Semantics.* 35(1). 171–206. https://doi.org/10.1093/jos/ffx019.

Arigne, Viviane. 2007. Grammaticalization, polysemy and iterated modality: the case of *should*. *Corela. Cognition, représentation, langage*. Université de Poitiers (5–1). https://doi.org/10.4000/corela.343.

Arigne, Viviane. 2017. From mirativity to argumentation: A case of discursive mirativity. *Review of Cognitive Linguistics.* 15(2). 438–459. https://doi.org/10.1075/rcl.15.2.06ari.

Auwera, Johan van der & Vladimir A. Plungian. 1998. Modality's semantic map. *Linguistic Typology.* 2(1). https://doi.org/10.1515/lity.1998.2.1.79.

Behre, Frank. 1950. The origin and early history of meditative-polemic "should" in "that" clauses. *Symbolae Philologicae Gotoburgenses* (Göteborgs Högsolas Arsskrift). 56. 275–309.

https://doi.org/10.1017/S0022226725101096 Published online by Cambridge University Press

Behre, Frank. 1955. *Meditative-polemic "should" in Modern English 'that'-clauses*. Stockholm: Gothenburg Studies in English.

Birner, Betty J., Jeffrey P. Kaplan & Gregory L. Ward. 2007. Functional compositionality and the interaction of discourse constraints. *Language.* 83(2). 317–343. https://doi.org/10.1353/lan.2007.0056.

Bondarenko, Antonina. 2025. Verbless questions in oral monologic discourse. *Linguistics Vanguard*. 11(2). https://doi.org/10.1515/lingvan-2025-0031.

Boye, Kasper. 2023. Grammaticalization as conventionalization of discursively secondary status: Deconstructing the lexical–grammatical continuum. *Transactions of the Philological Society.* 121(2). 270–292. https://doi.org/10.1111/1467-968X.12265.

Bybee, Joan. 2010. *Language, usage and cognition*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511750526.

Bybee, Joan L. 1995. The semantic development of past tense modals in English. In Joan L. Bybee & Suzanne Fleischman (eds.), *Typological studies in language*, vol. 32, 503. Amsterdam: John Benjamins Publishing Company. https://doi.org/10.1075/tsl.32.22byb.

Bybee, Joan L. 2002. Main clauses are innovative, subordinate clauses are conservative: Consequences for the nature of constructions. In Joan L. Bybee & Michael Noonan (eds.), *Complex sentences in grammar and discourse*, 1–17. Amsterdam: John Benjamins Publishing Company. https://doi.org/10.1075/z.110.02byb.

Bybee, Joan L., Revere D. Perkins & William Pagliuca. 1994. *The evolution of grammar: tense, aspect, and modality in the languages of the world*. Chicago, IL: University of Chicago Press.

Cappelle, Bert, Ilse Depraetere & Mégane Lesuisse. 2019. The necessity modals 'have to', 'must' , 'need to', and 'should': Using n-grams to help identify common and distinct semantic and pragmatic aspects. *Constructions and Frames.* 11(2). 220–243. https://doi.org/10.1075/cf.00029.cap.

Celle, Agnès. 2018. Epistemic evaluation in factual contexts in English. In Zlatka Guentchéva (ed.), *Epistemic modalities and evidentiality in cross-linguistic perspective*, 22–51. Berlin; Boston, MA: De Gruyter. https://doi.org/10.1515/9783110572261-002.

Coates, Jennifer. 1983. *The semantics of the modal auxiliaries*. London: Routledge.

Condoravdi, C. 2002. Temporal interpretation of modals - Modals for the present and for the past. In David I. Beaver, Brady Z. Clark, Stefan Kaufmann & Luis D. Casillas Martnez (eds.), *The construction of meaning*, 59–88. Stanford, CA: CSLI Publications. https://www.semanticscholar.org/paper/Temporal-Interpretation-of-Modals-Modals-for-the-Condoravdi/4469b1465cb5901fcc9a628535e3125d1f0fd579 (29 May 2024).

Declerck, Renaat & Susan Reed. 2001. *Conditionals: A comprehensive empirical analysis*. De Gruyter. https://doi.org/10.1515/9783110851748.

DeLancey, Scott. 1997. Mirativity: The grammatical marking of unexpected information. *Linguistic Typology.* 1(1). 33–52.

Diewald, Gabriele, Volodymyr Dekalo & Dániel Czicza. 2021. Grammaticalization of "verdienen" into an auxiliary marker of deontic modality: An item-driven usage-based approach. In Martin Hilpert, Bert Cappelle & Ilse Depraetere (eds.), *Constructional approaches to language*, vol. 32, 81–122. Amsterdam: John Benjamins Publishing Company. https://doi.org/10.1075/cal.32.04die.

Farkas, Donka F. 2022. Non-intrusive questions as a special type of non-canonical questions. *Journal of Semantics.* 39(2). 295–337. https://doi.org/10.1093/jos/ffac001.

Fernández-Pena, Yolanda & Javier Perez Guerra. 2023. Why why-fragments? A corpus-based constructionist analysis of their form and meaning. In Stefania Maci & Giovanni Garofalo (eds.) *Investigating discourse and texts: Corpus-assisted analytical perspectives*, 131–160. Bern, New York: Peter Lang. https://doi.org/10.3726/b21393.

Ginzburg, Jonathan. 2012. *The interactive stance: meaning for conversation*. Oxford; New York, NY: Oxford University Press.

Gisborne, Nikolas. 2007. Dynamic modality. *SKASE Journal of Theoretical Linguistics.* 4(2). 44–61.

Guentchéva, Zlatka. 2017. An enunciative account of admirativity in Bulgarian. *Review of Cognitive Linguistics.* 15(2). 540–575. https://doi.org/10.1075/rcl.15.2.10gue.

Haspelmath, Martin. forthcoming. Ambiguity avoidance vs. expectation sensitivity as functional factors in grammatical change. https://www.academia.edu/128136629/Ambiguity_avoidance_vs_expectation_sensitivity_as_functional_factors_in_grammatical_change (24 March 2025).

Heine, Bernd. 1993. *Auxiliaries: Cognitive forces and grammaticalization*. New York, NY: Oxford University Press. https://doi.org/10.1093/oso/9780195083873.001.0001.

https://doi.org/10.1017/S0022226725101096 Published online by Cambridge University Press

Heine, Bernd. 2018. Grammaticalization in Africa: Two contrasting hypotheses. In Heiko Narrog & Bernd Heine (eds.) *Grammaticalization from a Typological Perspective*, 16–34. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780198795841.003.0002.

Hilpert, Martin. 2019. *Construction grammar and its application to English*. Edinburgh: Edinburgh University Press. https://doi.org/10.1515/9781474433624.

Hopper, Paul J. & Elizabeth Closs Traugott. 2003. *Grammaticalization* (Cambridge Textbooks in Linguistics) (2nd edn). Cambridge; New York, NY: Cambridge University Press.

Huddleston, Rodney & Geoffrey K. Pullum. 2002. *The Cambridge grammar of the English language* (1st edn). Cambridge: Cambridge University Press. https://doi.org/10.1017/9781316423530.

Jacobsen, William H. 1964. *A grammar of the Washo language*. PhD dissertation, University of California at Berkeley, Berkeley.

Jacobsson, Bengt. 1988. *Should* and *would* in factual that-clauses. *English Studies.* 69(1). 72–84. https://doi.org/10.1080/00138388808598555.

Larreya, Paul. 2003. Irrealis, past time reference and modality. In Roberta Facchinetti, Frank Palmer & Manfred Krug (eds.), *Modality in contemporary English*, 21–45. Berlin; Boston, MA: De Gruyter. https://doi.org/10.1515/9783110895339.21.

Larreya, Paul. 2009. Towards a typology of modality in language. In Raphael Salkie, Pierre Busuttil & Johan van der Auwera (eds.), *Modality in English* (Topics in English Linguistics), vol. 58, 9–30. Berlin; New York, NY: Mouton de Gruyter. https://doi.org/10.1515/9783110213331.9.

Leech, Geoffrey N. 2004. *Meaning and the English verb* (3rd edn). Harlow; New York, NY: Pearson/Longman.

Narrog, Heiko. 2005. On defining modality again. *Language Sciences.* 27(2). 165–192. https://doi.org/10.1016/j.langsci.2003.11.007.

Palmer, Frank. 1990. *Modality and the English Verb*. London: Longman.

Peltola, Rea. 2021. Unfolding constructions: Postmodal auxiliaries in mirative complement patterns. In Martin Hilpert, Bert Cappelle & Ilse Depraetere (eds.), *Constructional Approaches to Language*, vol. 32, 149–184. Amsterdam: John Benjamins Publishing Company. https://doi.org/10.1075/cal.32.06pel.

Plungian, Vladimir. 2010. Types of verbal evidentiality marking: an overview. In Gabriele Diewald & Elena Smirnova (eds.), *Linguistic realization of evidentiality in European languages*, 12–58. Berlin, New York: Mouton de Gruyter.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech & Jan Svartvik (eds.). 1985. *A Comprehensive grammar of the English language*. London; New York, NY: Longman.

Rivière, Claude. 1981. Is "should" a weaker "must?"? *Journal of Linguistics.* 17(2). 179–195. https://doi.org/10.1017/S0022226700006940.

Salkie, Raphael. 2009. Degrees of modality. In Raphael Salkie, Pierre Busuttil & Johan Van Der Auwera (eds.), *Modality in English*, 79–104. Berlin, New York: Mouton de Gruyter. https://doi.org/10.1515/9783110213331.79.

Spears, Arthur K. 1973. Complements of significant-class predicates: A study in the semantics of complementation. *Proceedings from the Annual Meeting of the Chicago Linguistic Society.* 9(1). 627–638.

Sudo, Yasutada. 2013. Biased polar questions in English and Japanese. In Daniel Gutzmann & Hans-Martin Gärtner (eds.), *Beyond expressives: Explorations in use-conditional meaning*, 275–295. Boston: Brill. https://doi.org/10.1163/9789004183988_009.

Traugott, Elizabeth Closs. 1989. On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language.* 65(1). 31. https://doi.org/10.2307/414841.

Ward, Gregory. 2012. Brave New WOULD: Demonstrative equatives and information structure. In Christina Galeano, Emrah Görgülü & Irina Presnyakova (eds.), *Proceedings of the fortieth Western Conference on Linguistics, WECOL 2011*, vol. 21, 139–160. Department of Linguistics, California State University, Fresno; Department of Linguistics, Simon Fraser University, Burnaby, BC.

Ward, Gregory, Betty J. Birner & Jeffrey P. Kaplan. 2003. A pragmatic analysis of the epistemic *would* construction in English. In Roberta Facchinetti, Frank Palmer & Manfred Krug (eds.), *Modality in contemporary English*. Berlin; Boston, MA: De Gruyter Mouton. https://doi.org/10.1515/9783110895339.71.

Zeisler, Bettina. 2017. Don't believe in a paradigm that you haven't manipulated yourself!: Evidentiality, speaker attitude, and admirativity in Ladakhi. *Review of Cognitive Linguistics.* 15(2). 515–539. https://doi.org/10.1075/rcl.15.2.09zei.

Ziegeler, Debra. 2000. The role of quantity implicatures in the grammaticalisation of would. *Language Sciences.* 22(1). 27–61. https://doi.org/10.1016/S0388-0001(99)00006-6.

https://doi.org/10.1017/S0022226725101096 Published online by Cambridge University Press

Corpus Data

Davies, Mark. 2004. *British National Corpus* (from Oxford University Press). https://www.english-corpora.org/bnc/.

Davies, Mark. 2008. *The Corpus of Contemporary American English.* https://www.english-corpora.org/coca/.

Jakubíček, Miloš, Kilgarriff, Adam, Kovář, Vojtěch, Rychlý, Pavel, & Suchomel, Vit (2013, July). The TenTen corpus family. *7th International Corpus Linguistics Conference CL*. 125–127.

Kilgarriff, Adam, Vít Baisa, Jan Bušta, Miloš Jakubíček, Vojtěch Kovář, Jan Michelfeit, Pavel Rychlý and Vít Suchomel. 2014. The Sketch Engine: ten years on. *Lexicography.* 1. 7–36.

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