

A history of English evidential verbs of appearance¹

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In this corpus-based article we explore the development of evidential meanings in English verbs of appearance, together with their acquisition of evaluative meanings. We explore the relationship of these semantic changes to the question of whether there is an increase in subjectivity diachronically, and we show that subjectivity is orthogonal to both developments: an increase in subjectivity appears rather to go with the spread of small clause constructions.

1 Introduction

This article explores the development of evidential meanings in English verbs of appearance such as *APPEAR*, *LOOK*, *SOUND*, and *SEEM*. It is based on an investigation of the history and development of these verbs in the Helsinki Corpus (Kytö, 1996). The reason for exploring this area of the history of English is that it offers an opportunity for looking at hypotheses about semantic change, such as those found in Sweetser (1990), Traugott (1989), and Traugott & Dasher (2002). In particular, it allows for an investigation of the relationship between subjectivization² and the emergence of evidential meanings, as well as an investigation into the relationship between semantic change and grammatical change. The syntactic changes that these verbs undergo do not involve a change of word class or of morphosyntactic features. They do, however, involve an increase in the syntactic complexity of *APPEAR*-class verbs,³ and it should be noted that grammaticalized elements are often more syntactically complex than lexical words (so clitics are often more syntactically complex than the words they have evolved from).

We can sketch the semantic change by taking a brief look at the history of *APPEAR*. The first sense of *APPEAR* in the *OED* is ‘to come forth into view’ – there is no evidential element in this sense; it simply reports physical perception with the percept presented as the subject rather than the perceiver. The first example in the *OED* is from *c.*1250, from the Kentish sermons.

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² We are using ‘subjectivization’ for what Traugott (1989) and Traugott & Dasher (2002) call ‘subjectification’.

³ They are more complex in that they acquire a complex complementation pattern.

- (1) Apered an ongel of heuene in here slepe.

The last sense of APPEAR to develop according to the *OED* is an ‘impersonal’ sense of ‘seeming’ – ‘it seems’. The first example the *OED* gives for this sense is from *The Merry Wives of Windsor*, III. i. 72.

- (2) *Page.* Hee’s the man should fight with him
Shal. It appears so by his weapons

The sense of APPEAR in (2) is evidential in that the source of the inference, or the evidence, is given in the phrase *by his weapons*. It is also arguably subjective in that it comes with the implicature that the speaker is forming a judgement. This article, then, is concerned with the development of evidential meanings, and the related development of subjective meanings, in this class of verbs.

This development is not just about semantic change; it also involves a related syntactic change: the verbs’ argument-taking properties change over time. All of the verbs in this class end up as raising verbs, where they take a predicative complement and a subject, while failing to assign a semantic relation to their subject.

In this article we argue that in looking at semantic change it is necessary to distinguish between constructional meanings and lexical meanings. Subjectivization is a process that is found in the development of raising constructions where the verb has a (broadly speaking) modal meaning. We show that there is an evaluative construction type, which involves the assignment of semantic relations so that the speaker can be construed as an argument of the verb. In essence, we claim that in a subset of raising examples (those involving small clauses), the speaker is, semantically, an argument of the verb. This is a version of subjectivity consistent with Langacker (1990); like Langacker, we think that Traugott’s pragmatic speaker-oriented subjectivity essentially becomes encoded in the grammar in this argument-linking way. This claim is consistent with Sweetser’s (1990: 52) claim that the change from deontic to epistemic modality can be analysed in terms of the linking of semantic relations.

We also show that other semantic changes displayed by APPEAR-class verbs, such as the abstraction evident in *an idea suddenly appeared to him*, are orthogonal to the development of subjectivity. This kind of abstraction belongs with the semantic changes that Sweetser (1990) notes verbs of perception go through: from meanings to do with physical vision to meanings to do with mental ‘vision’ (Sweetser, 1990: 30); and from meanings to do with physical sight to meanings to do with knowledge or intellection (Sweetser, 1990: 33).

In the rest of this article, we lay out the background to our analysis and present an account of the semantic developments in the class of English verbs of appearance. Section 2 discusses the different kinds of evidential modality we find in these verbs; section 3 presents an analysis of the semantic structure of the subjective construction; section 4 is a more general discussion of issues in semantic change; section 5 discusses the general patterns of semantic change that we observe in these verbs; section 6 is a discussion of APPEAR-class verbs on a case-by-case basis; and section 7 presents the conclusions.

2 Evidentiality and inference

Palmer (2001) describes evidentiality as one of the two kinds of propositional modality, epistemic modality being the other. We adopt this definition. Evidentiality has also been discussed in the papers in Chafe & Nichols (1986), Infantidou (2001), Rooryck (2001a,b), de Haan (2001, 2003), the papers in Aikhenvald & Dixon (2003), and Aikhenvald (2004), among others. Palmer (2001) identifies two main kinds of evidential modality – reported and sensory-perceptual. Some languages have more extended systems, and some have morphological markers of different kinds of evidentiality. There can be subtypes of reported evidentials: there are kinds that describe ‘second-hand evidence’; ‘third-hand evidence’; ‘evidence from folklore’; and so forth. But here we are concerned with perceptual evidentials. Crosslinguistically, different markers are found – but there are no attested examples of a specific evidential marker for senses other than seeing and hearing. English does not have grammaticalized evidentials, but there are lexical evidentials.⁴

The lexical evidentials of English include the evidential senses of verbs of perception and verbs of appearance, and evidential adverbs such as *EVIDENTLY* and *APPARENTLY*. Verbs of perception like *SEE* and *HEAR* can have evidential interpretations, but these vary according to the ontological class of the percept and the person of the subject. The evidentiality of these verbs has been previously studied, although not from a diachronic point of view, in Gisborne (1996) and Usoniene (1999, 2001).

In the examples in (3) we see a range of interpretations. The example in (3a) describes a state of affairs where the percept is an event and where *SEE* means ‘perceive visually’; example (3b) describes a state of affairs where the percept is a proposition which coerces a different sense of *SEE* so that it does not mean ‘perceive visually’ so much as ‘understand’. The example in (3c) conflates both of these senses – it means something like ‘understand’, because the *THAT* clause denotes a proposition, but it describes the source of the information, and clearly brings with it the sense that the information has been gathered visually. Finally, neither (3a) nor (3b) is evidential, because they have third-person subjects, whereas (3c) is evidential because it has a first-person subject (de Haan, 2001).

- (3) (a) Jane saw Peter crossing the road.
 (b) Jane saw that Peter had crossed the road.
 (c) I see (e.g. in the paper) that the Hutton inquiry was a whitewash.

The examples of verbs of appearance in (4) are different in that they all have an evidential interpretation. They also raise issues about subjectivity – to be addressed below – because the perceiver must, by default, be identified with the speaker in examples like this.

⁴ A reviewer disagrees, citing Anderson’s (1986) discussion of *MUST* as evidence that grammatical evidentials exist in English.

- (4) (a) Peter appears to be crossing the road.
 (b) Peter appears to have crossed the road safely.
 (c) It appears that the Hutton inquiry was a whitewash.

The examples in (3c) and (4) raise acutely the question of whether evidential meanings always involve a kind of subjectivity, given that verbs of perception like those in (3) appear to require a first-person subject to be interpreted evidentially, and given the apparent subjectivity of the examples in (4).

A further issue concerns the question of whether these verbs indicate that the speaker has attenuated his or her commitment to the proposition that evidence is being provided for. In epistemic modality – the other kind of propositional modality according to Palmer (2001)⁵ – speakers judge the factual status of a proposition, as is seen in Lyons' (1977: 797) definition where '[a]ny utterance in which the speaker explicitly qualifies his commitment to the truth of the proposition expressed by the sentence he utters . . . is an epistemically modal, or modalized utterance'. With evidential modality, speakers indicate a source for the factual status of propositions. This, of course, can bring with it the implicature that the speaker's commitment to the proposition has been modified.

Verbs of appearance are evidential in that they indicate the evidential source for the proposition. So, for example, (5a) says that Richard's appearance is the reason for inferring that he is ill and (5b) says that his sound is the reason for inferring that he is ill.

- (5) (a) Richard looks ill.
 (b) Richard sounds ill.

The verbs under discussion also have an evaluative interpretation. So (5a) can be overridden, as in (6a), and (5b) can be overridden as in (6b).

- (6) (a) Richard looks ill, but he isn't.
 (b) Richard sounds ill, but he isn't.

From this, we can factor out evidential and evaluative interpretations: the evidential interpretation of (5a) says something like 'he is ill and his appearance is the source of my information that he is ill', whereas the evaluative interpretation is more like 'I infer on the basis of his appearance that he is ill'. The question for an analysis of the meanings of these verbs is whether the examples in (6) involve an attenuation of the speaker's commitment to the proposition that Richard is ill. The question for a historical study of these verbs is whether the evidential meaning is prior to the evaluative meaning. Aikhenvald (2004: 187) argues that evidentials can acquire 'epistemic extensions', where the speaker indicates their degree of certainty and commitment to the truth of a proposition. The evaluative meanings under discussion here belong in this general domain; they clearly develop after the evidential meanings.

⁵ This position is challenged by Aikhenvald (2003, 2004), who treats evidentiality as belonging in a semantic domain independent of modality.

This is a question about (uni)directionality. The evaluative senses arguably involve speaker-oriented and subjective inferences or meanings. Given that the development of epistemic modality is widely accepted to involve an increase in subjectivity (Nordlinger & Traugott, 1997; Sweetser, 1990; Traugott, 1989), and given that the evaluative senses are similar to epistemic meanings (thus Aikhenvald's 'epistemic extensions'), it would be interesting to see whether the development of evaluative meanings in these evidentials involves a similar increase in subjectivity. We shall see below that the development of subjectivity can be factored out from the development of evaluative meanings.

Evaluative meanings can be overridden in the relevant context. We have seen from (5) and (6) above that a judgement expressed by an inferential evidential verb of appearance can be undermined. We can also see that even with epistemic modals which express an evaluation of a proposition, the evaluative inference can perhaps be cancelled out by the rest of the utterance.

- (7) (a) Your hypothesis may be right, but I think you'll find the experimental evidence will undermine it, and it isn't.
 (b) Jane could be in Manchester by now, but given the reliability of the trains, she certainly isn't going to be.

There are further examples of verbs of appearance in (8); these examples also help distinguish the evaluative meaning from the purely evidential.

- (8) (a) Peter sounds nice [but he isn't].
 (b) The cake looks nice [but it's revolting].
 (c) The dress looks pretty [!but it isn't].

The examples in (8) show that the ability to cancel speaker inferences in the meanings of verbs of appearance is related to the degree to which they express a judgement. The first two examples, (8a,b), show that the judgement that Peter or the cake is nice can be cancelled out in a conjoined BUT clause. The example in (8c), on the other hand, has a meaning which does not involve a judgement, which explains why the material in square brackets cannot be included. The difference in meaning between (8b) and (8c) is this: (8b) means 'I judge that the cake is nice on the evidence of its appearance', whereas (8c) means 'the dress has a pretty appearance'.⁶

There is a related phenomenon to do with the gradability of the predicative complement. If we take the examples in (9), we can see that they need to be gradable to be acceptable.⁷

⁶ Philip Miller (p.c.) suggests that the reasoning should be the other way around and that the linguistic meaning of *the dress looks pretty* is something like 'on the basis of sensory visual evidence, I judge that the dress is pretty' because prettiness is a property that is evaluated strictly on the basis of sensory visual evidence. Miller would then treat the apparently modalized proposition as an inference, rather than part of the linguistic meaning.

⁷ As Philip Miller (p.c.) points out, it is possible to have examples like *Peter seems to be a man*. Such examples point to a grammatical difference between small clauses and more clausal predicative complements, which we shall exploit in section 6.

- (9) (a) !Peter looks a man.
 (b) Peter looks a nice man.

This is evidence for an evaluative meaning, because the very gradability of the predicative complement in (9b) permits evaluation. An example like (9a) does not permit evaluation of Peter's membership of the category 'man'. But the fact that evidence for his being a man is offered – the evidence being his appearance – suggests that the matter of his being a man is evaluable. We can construe this as a kind of semantic–pragmatic conspiracy: the evidential nature of the verb lends itself to an evaluation of the information described by the predicative complement; the predicative complement in turn needs to be gradable to square up to being modalized; and the gradability of the predicative complement together with the evidential nature of the verb drives an interpretation where the commitment to the proposition expressed by the predicative complement and its subject is attenuated. This, then, suggests a semantic–pragmatic path by which evaluative meanings can develop in these verbs, but in turn it also suggests that a gradable predicative complement can function as a criterion for analysing a given example as having an evaluative or judgemental meaning rather than being purely evidential. This, then, is a lexicalization of the implicature that the speaker is forming a judgement.

A final criterion is that different PP predicative complements drive different kinds of interpretation. A predicative LIKE PP drives an evaluative interpretation, as (10a) shows. A predicative OF PP cannot interact with an evaluative meaning in the verb, as the example in (10b) shows.

- (10) (a) The pudding tastes like chocolate (but it isn't).
 (b) The pudding tastes of chocolate (!but it isn't).

The reason for the difference between these two different PPs is that LIKE is a predicate of comparison whose (semantic) arguments may be concrete or hypothetical, whereas OF is partitive and here denotes the composition of *the pudding* – chocolate must be part of the pudding in (10b). This discussion is taken up again in section 6.

3 The proposal

In this article we are making two discrete claims. The first is that these verbs acquire propositional arguments as their meanings undergo semantic bleaching, and this in turn leads to the development of evidential senses. As part of this claim, we are also claiming that the evaluative meaning we can see in examples like (8a,b) and (9b) is an increasingly entrenched pragmatic inference that follows from the principle that a speaker is only going to indicate the source of evidence for a proposition if there is a reason to do so – such as evaluating their commitment to the proposition.

The second claim is to do with the nature of subjectivity. We are taking the view that there is a grammatical pattern, or construction, which quite literally grammaticalizes subjectivity, by making the speaker an argument of the verb. We claim that subjectivity

is structured over a relationship between certain semantic arguments of the verb and the speaker. This is part of the claim that some kinds of meaning are constructional rather than lexical. The analysis which we are advancing is that subjectivity inheres to the raising construction when it involves verbs with modal meanings.

The semantic relations we assume to link into the discourse context to the speaker are the force-dynamic relations of initiator and endpoint (Croft, 1991), which (with different names) are assumed by Talmy (1985) and Sweetser (1990) to be implicated in epistemic modality.⁸ The reason why a model of linking into the discourse context has to be established is that when these verbs do not have an explicit experiencer phrase associated with them, as in (11a), then the experiencer is by default associated with the speaker, as in (11b).

- (11) (a) Peter looks drunk to his boss.
 (b) Peter looks drunk.

In the account developed here, *to his boss* is the endpoint of a force-dynamic relationship in (11a), and the speaker is the endpoint in (11b). This kind of linking to the speaker captures the subjectivity of this kind of construction. We take it that (11b) has the same meaning as (12).

- (12) Peter looks drunk to me.

From this, we assume that there is a default linking of semantic relation to the speaker in this context. This construction in (11b) is subjective because the speaker is the linguistically unexpressed argument of the verb. If the experience is expressed, as in (11a) and (12), that subjectivity is lost: (11a) is not subjective because the experiencer is third person, and (12) is less subjective than (11b), because the experiencer is not just assumed, but is identified.

4 The verbs

In our study we looked at the sensory-modality-neutral verbs of appearance *APPEAR* and *SEEM* and the sense-organ-specific verbs *LOOK*, *SOUND*, *FEEL*, *SMELL*, and *TASTE*. Because *SEEM* does not appear in English in the thirteenth century, we also looked at aspects of the later history of *THINK*/'seem' (the *THINK* whose etymon is Old English *ÞYNCAN*), although the later history of this verb is one of its morphological merger with *THINK* < *ÞENCAN* and ultimate loss, except in the form *methinks*, which becomes lexicalized and persists till the late Modern English period.

We focused on these verbs' development as verbs of appearance. Where there was a morphological relationship between verbs of cognition and verbs of appearance – as

⁸ As far as we are aware, only two formal theories allow argument linking into the discourse context: both HPSG (Pollard & Sag, 1994: 27, 91–5) and Word Grammar (Hudson, 1990: 255) present this analysis and, indeed, require it for certain phenomena. Gisborne (1996) presents a formal analysis, modelled in Word Grammar, of this construction. Jackendoff (1990: 140) acknowledges that such a strategy is likely to be required but does not explain how it can work in his theory.

in, for example, the case of *FEEL* – we did not investigate the relationship between the two classes of verb. There are studies (for example Barron, 2001) which do investigate this relationship. One area worth investigating in the future is the relationship between *PENCAN* and *PYNCAN*, which looks like a morphologically conditioned transitivity alternation, like the relationship between *RISE* and *RAISE* in contemporary English, and which suggests that the relationship between the verbs of appearance under discussion here and their cognitive verb analogues is a lexical one. The reason for doing this is related to Barron's study. Barron (2001) establishes that in Romance languages the class of verbs like *APPEAR* emerges through a productive morphosyntactic process. She notes that *VIDERE* 'see' has a passive *VIDERI* which is lexicalized with the meaning 'seem'. However, Barron also notes processes like those noted in this article, so that late Latin *SIMILARE* 'look like' develops into French *SEMBLER* and Italian *SEMBRARE*, both of which mean 'seem'.

In this study, we looked at the following historical processes:

- the development in the argument structure patterns of these verbs;
- the changes in their meanings – in particular the development of evidential and evaluative meanings;
- the relationship of these developments to the general issue of subjectivization in modality.

We have assumed that the gradability of the predicative complement is a driver for evaluative meaning; that the ability to occur with an experiencer expression, either a *TO* phrase or a dative expression, is another. We assume that clausal complementation – either with a finite clause, say as an extraposed subject, or a *TO* infinitive clause – is neutral between an evidential reading and an evaluative one, and that other criteria can drive either kind of interpretation.⁹ In particular, there is the possibility of a *BY* phrase which describes the evidence. So we have noted when evidence is expressed, as well as when an experiencer is expressed.

5 The historical development of the verbs of appearance

We took our data from the Helsinki Corpus (Kytö, 1996). The corpus is divided into various sections. In identifying the sources of the examples below we have used the tags from the corpus. We focused on the Middle English and early Modern English periods. The Middle English section of the corpus is divided into four subperiods:

M1 1150–1250

M2 1250–1350

M3 1350–1420

M4 1420–1500

⁹ A reviewer takes issue with this remark, claiming that it is at odds with a whole tradition of analyses that argue that constructions with an infinitive tend to have a more subjective reading than constructions with a finite clause. However, we take it that subjectivity is not isomorphic with the evaluative sense of verbs of appearance, and so there is no reason to assume that just because we have an evaluative interpretation, it has to be construed as a subjective one.

The early Modern English section is divided into three subperiods:

E1 1500–70

E2 1570–1640

E3 1640–1710

Our dating of data is restricted to the subperiod of the corpus that the relevant examples occur within. In the discussion that follows, we discuss the different senses of the verbs, first, and follow up with a distribution by time.

5.1 SEEM

We shall discuss SEEM first: it clearly fits the right general semantic area, but it does not have a specific sensory meaning. There were 341 examples from all of the subsections of the corpus. The earliest OED entry is dated to *c.* 1200. We observed that experiencers can be both dative and in a TO phrase and that the evidence can appear in *by* phrases: *it seems by his speech that he is drunk*. In addition to being a verb that can express evaluative meanings and speaker judgement, we noted that SEEM was more generally like a propositional attitude verb. This was particularly evident in the examples with clausal complements.

SEEM was categorized into four major classes, with an additional three minor classes. We had syntactic and semantic criteria, and found that only four classes were significant. The syntactic criteria were:

- Does the verb have a single finite clausal argument or does it occur in a predicative complementation pattern?
 - If it occurs in a predicative complementation structure, is the predicative complement a *to*-infinitive predicative complement or a small-clause one?

The main semantic criterion was:

- If it occurs in a predicative complementation structure, what is the ontological class of the subject? – is it a physical thing, or an abstraction?

Examples with single finite complements usually showed extraposition. We note below where our expectations about the verbs were not followed through. All variants of SEEM had a single semantic argument, so in the case of SEEM you do not see all of the semantic developments that can be observed with the verbs involving a sensory modality.

SEEM 1

This was the variant with a predicative complement, as in *Jane seemed nice*. We factored out predicative complements with infinitival TO – these are discussed in the next section. We also factored out examples with a clausal subject. There were 113 examples. The predicative complement could be an adjective or adjective phrase, a noun or noun phrase, a preposition phrase or even a verb phrase (headed by a participle). These examples, then, all patterned like *he seems drunk/a nice boy/in trouble/forced to agree*. In 80 cases the complement is an adjective or adjective phrase; in 17 it is an NP; in 7 a

PP; in 5 cases it is a participle.¹⁰ In all cases the subject was a referential noun phrase. We can call this ‘small-clause’ complementation.

The experiencer is expressed 29 times (out of 113 tokens). Of these, 22 are TO experiencers, 7 are dative. There is no linguistic expression of evidence in any of the examples. The examples were like those given in (13).

- (13) (a) I now confess that plainly, and without doubting, I see those things which before seemed uncertain to me. (E3 XX PHILO BOETHPR 146)
 (b) The injuring Person then would seem more miserable *to thee* than him who had receiv'd the Wrong. (E3 XX PHILO BOETHPR 184)

Examples like (13b) are important because they point to the difficulties of establishing subjectivity in these kinds of case. The reason is that the experiencer here, which is italicized, is the addressee. This could not be any less subjective, and from this we can assume that the overt expression of an experiencer is less subjective than an example where the experiencer is not overtly expressed. However, we noted that both examples in (13) are evaluative. From this, we concluded that subjectivity and evaluative meanings must be factored out.

It cannot even be assumed, however, that all of these examples denote evaluation. For example, the first example of this kind, which is given italicized in (14), means something like ‘his horrible teeth looked like black iron to his two eyes’. For all that this is an example with a predicative complement which shares its subject with SEEM, it is not modal in any sense – SEEM here means ‘have the appearance of’.

- (14) His lockes & his longeberd blikeden al of golde & *his grisliche teð semden of swart irn his twa ehnen*. (M1 NN BIL MARGME 68)

On the other hand, the example in (15), which is from the period 1350–1420, shows that in this text both SEE and SEEM appear to have a similar abstract sense: ‘understand’ in the case of SEE, and some kind of proposition-modifying sense in the case of SEEM.

- (15) (*Boece*.) ‘Now confesse I wel,’ quod I, ‘that Y see wel now certeynly withouten doutes the thinges that whilom semeden uncerteyn to me.’ (M3 XX PHILO BOETHCH 436.C1)

We shall see in table 1, below, that there is a general increase in small-clause examples of SEEM through the Middle English and early Modern English periods.

SEEM 2

This is like SEEM 1, but the predicative complement is infinitival TO as in *Jane seemed to be leaving*. We factored this out to allow for some kind of measure of increased subjectivity, given the hypothesis that subjectivity belongs in the domain of small-clause complements of SEEM rather than SEEM with a clausal complement. There were

¹⁰ Examples like **she seemed sleeping* are treated as utterly ungrammatical in Present-day English but, as Denison (1998: 231) points out, such examples are found well into the nineteenth and even twentieth centuries, as in ‘Everyone *seemed milling around, banging* into furniture’, dated 1945. Denison wonders, without answering, whether the change is located in the higher verb or the participle.

Table 1. *SEEM: distribution by time*

	1150– 1250	1250– 1350	1350– 1420	1420– 1500	1500–70	1570– 1640	1640– 1710	Total
SEEM 1	1	5	17	7	18	27	38	113
SEEM 2	0	0	3	1	21	27	80	132
SEEM 3	0	1	4	0	6	2	7	20
SEEM 4	0	0	12	9	18	13	18	70
Total	1	6	36	17	63	69	143	335

132 examples, one of which is given as (16), of which 5 had a TO PP experiencer phrase, 1 had a BY evidence phrase, and 1 had a quirky case-marked dative subject.

- (16) But what other thyng semethe to be the helth of mens mindes and thoughts, but onely vertue? and what other thyng semeth y^c sicknes of mens myndes and thoughtes, then vyce and syns. (E1 XX PHILO BOETHCO 109)

The example in (16) is nice because it shows a TO predicative complement co-ordinated with a small-clause type of predicative complement. This strongly suggests that both examples are evaluative, because – as we have seen – when SEEM has scope over a whole clause, it has evaluative scope over the whole proposition expressed by that clause.

SEEM 3

SEEM 3 involves raising, just like SEEM 1, except that it has a clausal subject. For example, *that Jane has left seems to be too obvious for words* has a clausal subject. In contemporary English, the subject in examples like this will usually be extraposed. The different kinds of clausal subject possible are THAT, AS, or SO clauses, or a finite verb or a TO-infinitive clause. There were 20 examples.

Because in these cases the subject is the kind of abstraction that can be denoted by a clause, we expected them all to be evaluative. Out of 20 examples, 14 of the subject clauses were headed by THAT (13 of these were extraposed); 5 were headed by TO (2 of these were extraposed); and 1 was headed by WHY, which was also extraposed. In 15 cases, the predicative complement was an adjective. The remaining 5 were nouns or noun phrases. There were 12 experiencer expressions: 10 involved a TO PP, with the remaining 2 datives. There was no expression of evidence. There are examples in (17).

- (17) (a) And the secunde cause is this, that sothly me semith better to writen unto a child twyes a god sentence, than he forgete it onys. (M3 IS HANDA ASTR 662.C2)
 (b) That it seemeth to mee an unreasonable thing, that the Grammar Schooles should bee troubled with teaching A.B.C. (E2 EX EDUC BRINSLEY 12)

Because these examples involve a clausal subject with a predicative complement, they are a bit more abstract than the other examples. For example (19a) could be paraphrased as ‘I think that it is better to write out a good sentence for a child twice, than that he should forget it once’, and (19b) can be paraphrased as ‘I think that it is unreasonable that the Grammar Schools should be troubled with teaching ABC’.

SEEM 4

We can call *SEEM 4* ‘existential’ – there is no predicative complement in these examples. They have the same structure as *it seems that Peter is not at home*. They are clearly also evaluative: what is in the scope of ‘seem’ is the whole of the proposition. These examples permit extraposition. There were 70 examples.

- (18) (a) Thou had’st need to know it very well, for it seems thou wentest without a Candle or any thing in the World, and put in thy Horse. (E3 XX TRI LISLE IV,113C2)
 (b) ‘Whan I considere thi resouns,’ quod I, ‘I ne trowe nat that men seyn any thing more verrayly. And yif I turne ayein to the studies of men, who is he to whom it sholde seme that he ne scholde nat onoly leven these thinges, but ek gladly herkne hem?’ (M3 XX PHILO BOETHCH 448.C1)

In these examples, 25 of the clauses were headed by *THAT*, of which 22 were extraposed. There were 20 examples where the head was a finite verb; 17 of these were extraposed. There were 15 examples of *AS*-headed clauses; 14 of these were extraposed. Finally there were 10 clauses with *SO* as the head. All of these were extraposed. Out of 70 tokens, there were 19 with experiencers. Of these, 11 were in *TO* phrases, and 8 were dative. There were 4 *BY* evidence phrases.

Note that 6 examples are parenthetical. This suggests that *it seems* follows the same path of grammaticalization as *METHINKS*, described in Palander-Collin (1997, 1998) and Wischer (2000).

The remaining examples of *SEEM* are relatively minor. We found three further types.

SEEM 5

This is a minor variant of *SEEM* which is complemented by *AS THOUGH*. There were 6 tokens.

- (19) And there we sawe also geantes, the childe~ of Enack which are of the geau~tes.
 And we semed in oure sight as it were greshoppers and so we dyd in their sighte.
 (E1 XX BIBLE TYNDOLD XIII, 20N)

For examples like this, see discussion in Denison (1990, 1993: 241). This example is also like the examples of ‘copy-raising’ in examples like *the car seemed like it was going out of control*. The earliest example is in the 1150–1250 part of the corpus, but it should be noted that examples like this are found in Old English with *ÞYNCAN* complemented by *SWELCE*. These are essentially analysable in two ways: either the *AS* or *AS IF* or *SWELCE* clause is the predicative complement of *SEEM* or *ÞYNCAN*, or it is an extraposed finite complement.

SEEM 6

This is a very minor example meaning ‘be seen/become apparent’. There was only one token. It is given here.

- (20) For perfytt werke ne ware it nane
 But ought ware made þat myght it ġeme,
 For loue mad I þis warlde alane,
 perfor my loffe sall in it seme. (M4 XX MYST YORK 59)

Table 2. *SEEM*: number of texts having more than one example, by category and time

	1150– 1250	1250– 1350	1350– 1420	1420– 1500	1500–70	1570– 1640	1640– 1710	Total
SEEM 1	1	2	11	6	8	16	17	61
SEEM 2	0	0	3	1	9	9	19	41
SEEM 3	0	1	3	0	5	2	4	15
SEEM 4	0	0	8	6	7	8	9	38
Total	1	3	25	13	29	35	49	155

SEEM 7

These are examples which appear to involve *THERE* extraposition of a nonclausal element. They all come from the same author; an example is given in (21).

- (21) and about A there seem'd a contrivance, somewhat resembling a Pump, pair of Bellows, or Heart (E3 EX SCIO HOOKE 13.5,212)

Given the small number of tokens for the examples in *SEEM* 5, 6, and 7 and their relative insignificance as construction types, we have chosen to discount them from our discussion in the table above.

In table 1 above we have presented the time distribution of the data from the different verbs. In general, as might be expected given that *SEEM* has the same sense as *PYNCAN*, we see an increase in the usage of *SEEM* across all categories in the corpus. There are two interesting data: the 1350–1420 figure for *SEEM* 1 seems rather high compared with what follows, and *SEEM* 4 shows an increase in its pattern across all time periods. If it weren't for the loss of *THINK*/'seem' and its descendants, this might be surprising because we might expect the use of this verb with a finite clause as its complement to be stable. However, in the context of the loss of *THINK*/'seem', it is not surprising that the use of *SEEM* increases across all complementation patterns in the time periods shown.

In order to factor out possible text effects, we ran the time distribution a second time, but this time by the number of texts having more than one token of each of the different categories of *SEEM*. Doing this made it possible to observe that the spike for *SEEM* 1 in 1350–1420 was, in part, a text effect. We were also able to note that the distribution of texts having examples of *SEEM* 4 remained constant across the periods from 1350 onwards. This at least was what we predicted.

The distribution of the different categories of *SEEM* by texts is given in table 2.

From table 2 we can see that the small-clause variant of *SEEM* is found in all periods, but its use increases across the periods; we can see that *SEEM* 2, which was the variant with infinitival *to* as its complement, also increases over time. There are relatively low numbers of *SEEM* 3, the variant with the clausal subject, which does not

Table 3. *THINK/‘seem’: number of examples by category and time*

	1420–1500	1500–70	1570–1640	1640–1710
THINK 1	0	3	0	0
THINK 2	4	9	10	3
THINK 3	5	2	0	0
THINK 4	16	19	11	19

show such a marked increase in its usage. SEEM 4 appears slightly later than the other examples, but the number of texts using this variant remains stable.

We conclude that the evaluative sense of SEEM, which is what we have argued we find in SEEM 2 and SEEM 4, is a later development. We tentatively suggest that the marked increase in their use after 1570 is due to entrenchment of the evaluative meaning of SEEM later in its history. It is interesting to note the increase in SEEM 1 examples in the later periods, which suggests that there is a general pattern where an increase in the usage of SEEM with evaluative meaning coincides with a generally increased tendency to use a small clause. There is further discussion in section 6 below, where we discuss the relationship between construction types and the changes in the verbs’ meanings.

5.2 *THINK/‘seem’*

We looked at THINK/‘seem’ (that is, THINK meaning ‘seem’ or having the same argument structure patterns as SEEM) in the 1420–1710 subsection of the corpus. This is because we did not anticipate that looking at earlier examples would provide a great deal of illumination about the emergence of evidential verbs of appearance (Old English *BYNCAN* is well established as a verb covering the same semantic territory as SEEM, and this THINK descends from that verb), but we did think that the SEEM data – especially after SEEM became fairly well established – should be checked against its semantic competitor.

We found 100 tokens in that period.¹¹ Of these, 3 were examples with clausal complements (THINK 1); 26 appeared to involve subject-to-subject raising with a TO predicative complement (THINK 2); 7 involved apparent subject-to-subject raising with an adjective predicative complement (THINK 3); and 64 were examples of parenthetical adverbialized METHINKS (THINK 4). There were, additionally, 4 examples which appeared to be clausal, but which did not have overt subject expressions.

There is a distribution by time in table 3.

From these distributions it is clear that THINK/‘seem’ is on its way out – largely as a result of twin pressures from competition from SEEM and from its morphological identity with the cognitive verb THINK. But there are also additional data which suggest that there was a general parsing problem with THINK. The examples in (22) suggest

¹¹ That fortunate number does not include the 4 ambiguous examples from the 1570–1640 subsection of the corpus, which are probably examples of adverbial METHINKS.

that the nonsubject forms of the pronouns have been reanalysed as subject forms – i.e. that this is a kind of quirky case marking. The claim is that the *me* variant in (22b) appears to be in relatively free distribution with the *I* variant in the same text. Both examples come from the same text.

- (22) (a) I thinke my self neuer able to geue you sufficient thankes
 (b) al was it so, that in mine owne minde me thought my self not concluded, yet this argument semed me sodenly so suttle (<B CEPRIV1><O 1500–1570)

From examples like these we might conclude that in this period some speakers were treating ME as a possible subject form.

5.3 APPEAR

We stated in the introduction that APPEAR begins as a verb of physical manifestation, as in (1), and develops the meaning in (2) (repeated here as (23)–(24)) – which is the same as the evaluative meaning of SEEM when SEEM has a clausal complement.

- (23) Apered an ongel of heuene in here slepe.

The first example the *OED* gives for the evaluative sense is from *The Merry Wives of Windsor*, III. i. 72.

- (24) *Page*. Hee's the man should fight with him
Shal. It appears so by his weapons

APPEAR is a bit more complex than SEEM. This is for two reasons: it develops an abstract sense as well as the sense which is similar to SEEM's, and it is clear that although both of these senses involve an abstraction, there is not a particular relationship between them. The two domains of meaning are generally orthogonal. This is the kind of split that is quite common in grammaticalization – the historical, lexical unit is retained and can undergo semantic changes which are distinct from those that are part of the processes of grammaticalization.

The categories for APPEAR reflect this complexity.

APPEAR I

This means something like 'exist' or 'arise'. There are two examples in (25).

- (25) (a) Forsothe God seide, The watris, that ben vndur heuene, be gaderid in to o place, and a drie place appere; and it was doon so. (M3 XX OLDT WYCOLD I,1G)
 (b) it is sad indeed, that in a Nation professing Christianity so horrid an impiety should dare to appear. (E3 IR SERM TILLOTS II:ii430)

The example in (25a) is ambiguous between an 'exist' meaning and a 'be visible' meaning – although this distinction is moot, given that if something is visible, it exists. There were 21 examples of this kind. The ontological class of the subject was concrete in 16 cases and abstract in 5. In 9 of the examples, there was an inchoative sense. There

were 11 examples that occurred with a location adjunct – some of these were in the inchoative subset, and others were not.

APPEAR 2

This is a sense that means ‘be visible’ or ‘become visible’. There were 77 tokens. There is an example in (26).

- (26) Sotheli the Lord apperide to Abram, and seide to hym, Y schal gyue this lond to thi seed. And Abram bildide there an auter to the Lord, that apperide to hym. (M3 XX OLDT WYCOLD XII,1G:Heading)

As (26) shows, there is often an experiencer phrase in these cases – out of 77 tokens, there were 22 experiencers. The subjects (denoting the objects that appeared) were in different ontological classes: 39 tokens were concrete; 18 were spiritual; and 20 were abstract. A spiritual example is given in (27).

- (27) a cloude hilide the tabernacle, and the glorie of the Lord apperide. (M3 XX OLDT WYCOLD XVI,40N)

It is most straightforward to count such examples as spiritual. Although there are faith traditions which treat such experiences as involving the physical manifestation of the deity, we treat these examples as involving a nonphysical entity. This shows the general process of semantic bleaching: as the category denoted by the subject of *APPEAR* becomes more abstract, so does the sense of *APPEAR*. The example in (27) is the first example of this kind that we found for this sense. It comes from the 1350–1420 period.

APPEAR 3

This sense of *APPEAR* involves a further degree of abstraction. It means ‘be manifest’ or ‘become manifest’. There were 131 examples, of which 25 had abstract NP subjects; 60 had *as* clauses for their subjects (of these 25 were extraposed); and 36 subjects were *that* clauses (34 extraposed). There were also 3 examples with *how* (2 extraposed); 4 with *what* (2 extraposed); 1 with *which*; and 2 with a finite verb, both of which were extraposed.

There were some subtle variations: the difference between being manifest and becoming manifest is a difference of inchoativity. There were 6 inchoative examples. More interestingly, given the later history of *METHINKS*, there were also 11 parenthetical examples. Just 9 examples had experiencer phrases whereas 51 expressed the evidence. Some 26 of the examples occurred with a modifier like *CLEARLY* or *EVIDENTLY*; of these, 14 occurred with *PLAINLY*.

We can treat this sense of *APPEAR* as a clearly evidential one. The verb takes a whole proposition within its scope in 81 per cent of the examples. And some 39 per cent of these examples expressed an experiencer. It makes sense to treat the variant of *APPEAR 3* with a propositional argument together with the variant that has an NP subject, because the basic meaning is the same: they both mean ‘become manifest’. However, it is in this set of examples that we can see the emergence of the evidential sense. With the variant that has a propositional argument we can see the pragmatization,

or – perhaps later on – semanticization of the evidential meaning. There is an example in (28).

- (28) askyd of god on~ly wysdom to ordre hymself & his people to goddis pleysure/god gaue hym wysdom aboute all mortall men/as appereth in the fourth chapitre of the same boke. (M4 IR SERM FITZJ B5R)

APPEAR 4

APPEAR 4 is the raising equivalent of APPEAR 3. It means the same, but it has a predicative complementation structure rather than a single clausal argument. There are 9 examples. In 4 of them, the subject is concrete; in 4 it is abstract; and in 1 it is a THAT clause. In 6 instances, the predicative complement is infinitival TO; there are also 2 adjective predicative complements and 1 noun predicative complement. There is an expression of evidence in 2 of the examples (in a BY phrase). One of the examples is moot – we discuss this as example (30) below.

There is a straightforward example of APPEAR 4 in (29).

- (29) and then you shal say that your butter breakes, which perceiued both by this sound, the lightnesse of the churne-staffe, and the sparkes and drops, which will appeare yellow about the lippe of the churne (E2 IS HANDO MARKHAM 111)

The earliest examples have TO predicative complements. Example (29) is the earliest example with a non-TO predicative, excepting the example in (30), which is arguably equally well interpreted not as a raising example of this kind but as having an adverb modifier. If this is the case, example (30) belongs among the examples in APPEAR 3.

- (30) In which square if I drawe crosse lines frome one side to the other, according to the diuisions of the line G.H, then will it appear plaine, that the theoreme doth affirme. For the first square G.M.O.K, must needes be equal to the square of the line (C.D, E1 EX SCIO RECORD FIR)

We take it that this should be interpreted ‘that the theorem is correct will appear obvious’.

APPEAR 5

This means something similar to present-day SEEM, but it occurs with clausal arguments, which are all extraposed. There were 9 examples. Of these, there was 1 whose argument was an AS clause; 1 whose argument was a finite verb; and the remaining 7 had as their argument a THAT clause. In 3 cases, there was an expression of evidence.

There are examples in (31). Example (31a) is evaluative; example (31b) is both evaluative and evidential.

- (31) (a) For it apperethe that the goodes that dyffer of them selfe, can not be all one thyng (E1 XX PHILO BOETHCO 75)
 (b) From this then, and from several other Reasons founded on the same bottom, it appears, that Impiety, properly and by its own Nature, makes Men miserable (E3 XX PHILO BOETHPR 184)

We could infer from examples like this that the evidential element of its meaning has been bleached to some extent, and that for the verb to have evidence as part of its

meaning, as well as evaluation, some kind of support such as the FROM phrase in (31b) is necessary.

APPEAR 6

This is the variant of *APPEAR* which has the same sense as *SEEM*, and which features in a raising pattern. There were 26 examples. The subjects were all NPs; 17 were concrete, and 8 were abstract. Of the predicative complements, 13 were adjectives; 11 were infinitival TO; 1 was a noun phrase, and 1 was a preposition phrase. Of the 11 TO predicatives, 9 were in TO BE constructions. There were 4 experiencer phrases, and there was 1 evidence phrase. The NP predicative complement is found in the data from the E1 period (1500–70). Notably the phrase is *there enemy* (i.e. ‘*their enemy*’) which is gradable – by this we mean that there are degrees of enmity, and it is possible for *ENEMY* to be modified accordingly. This is significant in a study of evidentiality because, as we claimed in section 3, the gradability of the predicative complement is one of the criterial elements in the notion of ‘judgement’ emerging in the meaning of these verbs.

Like *APPEAR 5*, it can be interpreted as both evaluative and evidential: the evidential interpretation can be supported by an evidence phrase. Examples are given in (32).

- (32) (a) toward Westmerland is wel wooddid: and so be the quarters of Akeland: for by the name it apperith to have beene ful of okes. (E1 NN TRAV LELAND I,71)
 (b) When I haue told you that, I haue told you all: Some say, that though she appeare honest to mee, yet in other places shee enlargeth her mirth so farre (E2 XX COME SHAKESP 46.C2)

The example in (32a) is evidential – this is likely to be because of the evidential *by the name*. The second example is clearly evaluative because the speaker contrasts a personal judgement with the judgements of others.

APPEAR 7 and APPEAR 8

The remaining two senses are rather different. *APPEAR 7* means something like ‘make an appearance’. The examples consist mostly of people appearing at court. However, there are some examples of people appearing in other places (on stage, among the people, . . .). This variant really seems like a special case of *APPEAR 2* where the subject is a (volitionally involved) person, which is an interesting usage, because it involves a large degree of subject agency, and as we see in table 4, its frequency increases over time. What can be seen here is a split between grammaticalized *APPEAR* and the original lexical item, which *APPEAR 7* is an example of. There are 38 examples, and one is given in (33).

- (33) Pemberton, Mr Serg^t Pecke and Mr Charles Porter, as persons who had infringed the Prevedges of ye House by appearing at the Lords’ Barre in a case wherein Mr. Dalmahoy (a member of ye House) (E3 XX CORO AUNGIER 24)

Our last category, *APPEAR 8*, involves examples where the verb is definitely complemented by an adverb.

Table 4. *APPEAR: distribution by time*¹²

	1250– 1350	1350– 1420	1420– 1500	1500–70	1570– 1640	1640– 1710	Total
APPEAR 1	0	2	2	9	2	6	21
1a: inch	0	1	1	2	1	4	9
APPEAR 2	2	9	20	21	11	14	77
2a: inch	1	8	10	12	9	5	45
APPEAR 3	0	2	37	60	15	17	131
APPEAR 4	0	0	0	6	2	1	9
APPEAR 5	0	0	1	5	1	2	9
APPEAR 6	0	0	2	5	6	13	26
APPEAR 7	1	0	9	5	3	20	38
APPEAR 8	0	0	0	1	0	1	2
Total	4	22	82	126	50	83	367

- (34) Market Cross has a dyal and lanthorn on the top, and there being another house pretty close to it high built with such a tower and lanthorn also, with the two churches towers and some other buildings pretty good made it appear nobly at a distance (E3 NN TRAV FIENNES 151)

Examples like this are discussed in Gisborne (2000).

Discussion

There are two significant facts: the first is that one of the paths by which it becomes possible for *APPEAR* to express propositional modality is through increased generalization of the selection restriction on the subject of *APPEAR*. *APPEAR* takes a single argument – as that argument becomes more abstract, so the sense of *APPEAR* gets closer to the evaluative meaning. *APPEAR* 3, we argued, was evidential. But we also argued that *APPEAR* 4 had the same sense as *APPEAR* 3, even though it emerges far later in our data. From this we conclude that the emergence and establishment of the raising pattern is distinct from the emergence of propositional modality in the case of *APPEAR*. It also seems safe to assume that evidential modality antedates evaluative modality with these verbs. Given the data from *SEEM* in table 1, there is no reason to assume that a raising pattern was not available for these verbs: our first raising example of *SEEM* 1 was in the 1150–1250 period.

It is interesting that for the senses meaning the same as *SEEM* – *APPEAR* 5 and *APPEAR* 6 – the distribution of raising examples and examples with clausal arguments is consistent in the periods 1420–1500 and 1500–70. It is after this that *APPEAR* 6 becomes far more frequently used than *APPEAR* 5.

¹² The very high figures for 1500–70 in table 4 are partly due to a single text, E1 XX TRI THROCKM (a legal document), which contains some 40 of the total count.

We also see that *APPEAR* 7 shows countervailing tendencies: this is an absolutely nonmodal, nonpropositional use of this verb. It means the same as *appeared* in *Jane appeared before the magistrate* and shows if anything an increase in propositional content rather than semantic bleaching and attenuation of meaning. This is unsurprising. Here we have an example of a split in grammaticalization where the former lexical unit is retained and consequently undergoes semantic changes just like any other lexical item.

Given that *APPEAR* 3 peaks in use in the period 1420–1570, it might be possible to argue that the evaluative use of *APPEAR* 5 and *APPEAR* 6 is a development from the more evidential usage noted in *APPEAR* 3.

5.4 *LOOK*

In addition to *APPEAR* and *SEEM* there are verbs of appearance which denote a sensory perceptual means through which the experience is garnered. These are *LOOK*, *SOUND*, *FEEL*, *TASTE*, and *SMELL*. When these verbs acquire evidential and evaluative meanings, they pass through a different route from *APPEAR* and *SEEM*. First of all, there is no point in their history in which they are able to occur with the complementizer *THAT*. They do occur, in the case of *LOOK* very early in its history, with similitive predicates like *AS* and *AS IF*, but these have a complex grammar, which we describe in the next paragraph. Secondly, they are not able to occur with subject-to-subject raising out of a *TO* clause.

The complex grammar of *AS* and *AS IF* is due to their being both prepositions and subordinating conjunctions, like *SINCE*. However, unlike *SINCE* they are not restricted to the distribution of an adjunct; in fact, they are also found as predicative complements. This is the case even where *AS IF*, for example, appears as a subordinating conjunction, as in *his teeth seemed as if they couldn't manage a slice of white bread*. These expressions are all to some extent modal, because they draw a contrast between their subjects and their complements, and they add to the 'judgement' modality of the verb of perception.

There are 50 examples of *LOOK* with the sense 'appear', that is with a percept subject, out of a total of 653. The remaining examples all involve a perceiver subject. There are 5 sorts of predicative complement: 15 examples of adjectives; 24 of adverbs; 4 of *AS*; 4 of *AS IF*, and 7 of *LIKE*. These numbers add up to more than 50. This is because there are some cases which are ambiguously either adjectives or adverbs, so we have counted them twice here. *WELL* and *ILL* are treated as adverbs. Of the subjects, 24 are NPs denoting a person; 25 are NPs denoting a thing; and 1 (the last example) is the *it* of extraposition. All of the *LIKES* are PPs. *LIKE* introducing a clause did not occur in English till after our period. All of the *AS IF* examples have coreferential subjects. Only the *AS IF* examples can be construed as purely evaluative: the other examples have to be construed as involving an evidential element in their meaning. There are three clear examples of *LOOK* meaning 'appear' with adverb complements. Gisborne (2000) gives an account of the development of predicative complementation in the case of verbs like *LOOK*/'appear'.

In one of the *AS* cases, the subjects (of *LOOK* and of the subordinate verb) have different referents. One of the *AS IF* cases is extraposed (*it looks as if he's drunk*).

Table 5. *Distribution by time*

	1250– 1350	1350– 1420	1420– 1500	1500–70	1570– 1640	1640– 1710	Total
ADJ		2		1	3	9	15
ADV	1	1	4	4	3	11	(20) 24
<i>as</i>	2	2					4
<i>as if</i>					1	3	4
<i>like</i>						7	7
Total	3	5	4	5	7	30	(50) 54
No. of writers	2	3	2	3	4	10	24

There is a significant increase in the period 1640–1710. Counting writers levels this off a bit. This is chiefly because one writer (Fiennes) is responsible for 15 examples.

LOOK presents an analytical problem, because the earliest examples occur with *as* or with an adverb. For example, the earliest text has the structure given in (35).

- (35) Sixte þe scherewe, ho be itte,
 A lokeþ, *as* a wolde smite
 Wiþ is bat:
 Speke he ougt meche more,
 I schel him smite swiþe sore (M2 NI ROM BEVIS 18)

Bender & Flickinger (1999) argue that structures like this are adjuncts, which are not reanalysed as complements till the eighteenth century. Given the existence of structures involving *þyncan* + *swelce* in Old English, it need not be the case that these examples are adjuncts – and, if they were, given that *as* is a two-place predicate whose external argument must link to some object, these examples could be candidates for the analysis presented in Gisborne (2000). One really interesting fact is that LOOK does not occur with simple expressions of propositions, such as *that* clauses or *to*-infinitive predicative complements. This suggests that it is not obviously a verb of propositional attitude in the way that *appear* is. It also suggests that, for some of these verbs, the predicative complement enables a modal interpretation. In the case of *as* and *as if*, this is because they indicate a relationship of similarity between their internal and external arguments. That relationship of similarity already brings modal connotations.

5.5 *SMELL, SOUND and FEEL*

SMELL

Out of 48 examples there were 11 which were verbs of appearance with percept subjects. The remaining examples all had perceiver subjects. Of the relevant examples with percept subjects, none occurred with an experiencer or equivalent phrase. There were 4 examples with adjective predicative complements; 6 examples with adverbs; and 1 example with *als*, a realization of *as*. Essentially, then, *smell* behaved like *look*.

SMELL with a predicative complement is distributed across time as follows:

1 M2; 6 M3; 1 M4; 2 E1; 1 E2. Again, the significant fact is the relatively early occurrence of apparent raising examples.

SOUND

SOUND occurs in causative and inchoative usages. This verb is interesting for two main reasons: first it shows that there is a diathetic relationship between causative and inchoative usages. It also shows that the predicative complementation variant emerges out of an intransitive verb where there is a semantic relationship with the subject. There is a causative use of *SOUND* in (36a) and an inchoative use in (36b).

- (36) (a) A baggepipe wel koude he blowe and sowne,
And therwithal he broghte us out of towne. (M3 NI FICT CTPROL 32.C2)
(b) Jerome seith, 'At every tyme that me remembreth of the day of doom I quake;
for whan I ete or drynke, or what so that I do, evere semeth me that the trompe
sowneth in myn ere: "Riseth up, ye that been dede, and cometh to the juggement"
(M3 IR RELT CTPARS 291.C1)

Example (36a) means 'sound the bagpipe'; example (36b) means 'the trumpet sounded'.

In addition to these examples, which are not cognitive, there are examples like (37), where there is a clear cognitive element to the meaning of *SOUND*. Here, the example means something like 'should appear to your dishonour'.

- (37) your hand to bind yo' Grace for the accomplishment of this desire, trusting that yow
will depeach our said Pursevant immediatly, for the long delay of so honorable a
Journey wee think should sound to your dishonor. (E1 XX CORO THOWARD I,87)

It seems from these examples that the path followed by *SOUND* is via the intransitive, inchoative sense, with the development of a predicative complement, and with the introduction of a cognitive element of meaning following.

FEEL

There were 39 examples of *FEEL*. None of them involved a predicative complement, so it is not possible to date the emergence of structures that pattern like *the alabaster feels smooth*, but there were examples that show how such a pattern might emerge. The example in (38) shows the subject experiencing a sensation. There were 24 examples.

- (38) Even when they are in prosperity they ever and anon feel many inward stings and
lashes (E3 IR SERM TILLOTS II:ii421)

In this example, the sensation is an internal one.

The next example, *FEEL 2*, has a clausal complement (headed by *that*, *as* or a finite verb) which refers to an opinion. This, then, shows *FEEL* as a verb of emotion or emotional cognition. There is an example in (39). There were 4 examples of *FEEL 2*.

- (39) (^2 Prom.^) Why done Sir.
(^1 Prom.^) By the masse I feele I haue lost,
'Tis of more weight I faith. (E2 XX COME MIDDLET 25)

A possible path to predicative complementation is through the ambiguity of *John feels cold* (although this remains speculation given that there are so few data) and the pragmatic context created by other members of the *APPEAR* class. *John feels cold* could

have an experiencer subject or a percept subject. One relevant question is why there is no actual *APPEAR*-class use of *FEEL* in the corpus, given that other verbs of sensory perception showed that kind of use in the 1250–1350 period.

In the next section, we present a more general discussion of these data.

6 Issues in semantic change

The patterns of development are not consistently the same throughout this class. *APPEAR* shows a regular path of semantic change, which is consistent with its development of a modal meaning and a raising syntax. First it goes through a process of semantic bleaching, so that its subject can be taken from increasingly abstract ontological classes. This licenses a clausal subject, which corresponds with evidential modality. In turn, evaluative meanings develop later, as does the ability to occur in the subject-to-subject raising pattern. We have shown with *SEEM* that the subject-to-subject raising pattern in English antedates its occurrence with *APPEAR*, and that *APPEAR* can occur in raising patterns with a nonevaluative sense. From this we conclude that for a verb to occur in subject-to-subject raising simply requires there to be a propositional complement of the verb. Because *TO*-infinitive clauses regularly express propositions, especially in modal contexts, the existence of a propositional complement leads to the existence of a raising construction.

It is widely recognized that lexical evidentials of this kind bring with them evaluative implicatures (see Aikhenvald, 2004; Usoniene, 2001). One of the semantic changes we have seen is that these evaluative implicatures become increasingly entrenched – a kind of pragmatic strengthening, as it were, of the evaluative meaning. To the extent that Usoniene (2001) and Gisborne (1996) treat these verbs as having epistemic meanings, we can see these meanings as diachronic outcomes of earlier pragmatics, which become part of the lexical entry of the verbs.

In the case of the more strictly sensory verbs, the pattern is different: these verbs occur with elements such as *AS* clauses or adverbs that are sufficiently ambiguous to allow reanalysis as arguments. The process is explained, and the relevant analysis developed, in Gisborne (2000). The more sensory verbs were less likely to occur with clausal complements than *APPEAR* and *SEEM*, excepting *AS* (*IF*) complements, and this has led us to conclude that they have a less obviously propositional semantics. However, they did seem to us to be more subjective in their senses than *APPEAR* and *SEEM*. One relevant issue is that subordinating conjunctions like *AS* arguably introduce an element of propositional attitude, because they compare what a clause denotes with some kind of entity.

One thing that we have not found is a great deal of evidence for subjectivity, especially in the early data. Even our clearly evaluative examples were apparently not that subjective, and the examples with *APPEAR* in particular seemed to be quite at odds with the notion that subjectivity is an inherent part of evaluative meaning.

This contrasts with the observations of Traugott (1989) about the development of subjectivity in the meanings of the modal auxiliaries. Traugott (1989) shows that in

the case of the English modals, deontic modality precedes epistemic modality, and that the final stage of epistemic modality is a strongly subjective interpretation. From these observations she goes on to hypothesize that semantic change is unidirectional and that subjectivization is an inherent part of the development of epistemic modal meanings. Nordlinger & Traugott (1997) weaken this position to an extent: they claim that subjectivization is orthogonal to the development of modal meanings, although it can be associated with different stages in the development of modal meanings. Traugott & Dasher (2002) discuss the relationship between semantic bleaching and pragmatic strengthening. Rather than adopt the strong position of the unidirectionality hypothesis, they adopt the weaker position that there are strong trends in semantic change.

We assume the weaker position: there are clearly observable trends in semantic change, which have been repeatedly observed. But these trends can be reversed, and need not be completed. In the case of the verbs under discussion in this article, subjectivization is orthogonal to the development of an evaluative meaning. We suggest that this can be accounted for if subjectivization is thought about as an example of constructional meaning, rather than in terms of lexical meaning. We claim that (41b) is more subjective in its interpretation than (41a).

- (41) (a) Peter seemed to be drunk.
 (b) Peter seemed drunk.

Given the claims about the structure of (11b) in section 3, we further claim that subjective meanings are constructional, and not lexical. The specific construction is the epistemic ‘small clause’ (Aarts, 1992) construction. The reasons for this analysis are that it is possible to have nonsubjective epistemic modality; it is possible to have nonmodal small clauses; but all modal small clauses are subjective. Furthermore, data from Borkin (1973) suggest that there is a general tendency for small clauses to have a subjective construal. We shall take each of these points in turn.

Nonsubjective epistemic modality is found in full clausal complements of modal predicates, as in the example in (42) below from Perkins (1983: 68), which in turn follows a discussion in Lyons (1977: 805).

- (42) If it is possible that it will rain, you should take your umbrella.

According to Perkins (1983), the fact that the epistemically modal expression in (42) can be embedded under *IF* shows that this is an example of objective epistemic modality.¹³ Embedding under *IF* shows that the modality itself can be subjected to scrutiny – what is denoted here by *possible* is the logical possibility of it raining, not some person’s point of view that it may rain. Crucially, the complement of *possible* is a full finite clause, and in the literature on modality it is examples like (42), where a full clause is the complement of the modal expression, that reveal the existence of nonsubjective modality.

¹³ It should be noted that some scholars, for example Nuyts (2001), find the notion of objective modality problematic.

as in (46b). From this, and the scope data above, we conclude that the semantics of small-clause predicatives are different from the semantics of predicatives like (46b), and that small clauses are less clausal, in that they do not express explicit propositions, than TO predicatives.

We can also see that epistemic small clauses are always subjective: *Peter seems nice* encodes a speaker judgement, much like *Peter may be nice*. There is also Borkin's (1973) evidence with FIND. Borkin observed that FIND changed its meaning depending on its complement. There are examples in (47).

- (47) (a) I find that this chair is uncomfortable.
 (b) I find this chair to be uncomfortable.
 (c) I find this chair uncomfortable.

Borkin claimed that (47a) was appropriate if the judgement was arrived at through some kind of empirical endeavour, such as consumer sampling, and checking through consumer reports. She found that (47b) was appropriate if the subject of the sentence ran the consumer tests themselves; and she found that the final example was appropriate if the subject of the sentence finds the chair uncomfortable through personal experience. We do not necessarily accept the distinction between (47a) and (47b), but the point in general is well made: the small-clause example is more subjective than the fully clausal examples. We can treat this historically. Because of the familiar phenomenon of constructional polysemy (Croft, 2001; Goldberg, 1995), we can identify semantic change in constructions as well as in words: subjectivization occurred in this construction type.

From these observations we can see that there is a difference between the two patterns: subject-to-subject raising involving a small clause will have a subjective interpretation, whereas subject-to-subject raising involving a TO-infinitive predicative complement will not. We can treat the distinction as one between full clausal complements (finite clauses and TO-infinitive predicative complements) and nonclausal complements. This account is not inherently at odds with the idea that there is subjectivization in grammaticalization, it simply locates the subjectivization in the development of a construction: the history of the modals is the history of a kind of small-clause construction; it is the construction that becomes subjective, and so the subjective construal of verbs of appearance with small-clause complements is consistent with their acquiring that constructional pattern, and its becoming more entrenched.

7 Conclusions

There is a large literature which convincingly shows that changes in a verb's argument structure can be pragmatically driven. Pragmatic effects can drive semantic change, and semantic change, in turn, can drive syntactic change. We would expect evidential meanings to develop in the verbs of appearance before evaluative meanings, and the evaluative meanings to be pragmatic inferences which become conventionalized. Subjectivity, as we have suggested above, is a function of the development of small-clause examples. For this reason, we expect a different semantics for the verbs of

sensory perception, and the related verbs of appearance, *SEEM* and *APPEAR*. However, we note that raising structures are mismatched with the emergence of modal meanings – both evidential and evaluative – in this set of verbs. From this we conclude that there are other factors at work in the development of subject-to-subject raising. This is one of the observations that argues in favour of a different treatment for lexical and constructional meanings in these verbs – although, as the development of *APPEAR* shows, there has to be an element of overlap between these domains.

We would argue, following Traugott & König (1991), Hopper & Traugott (1993: chapter 4), and Nordlinger & Traugott (1997), that the development of evaluative modality out of evidential modality involves pragmatic strengthening, with the implicature present in the evidential modality eventually becoming conventionalized.

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