

On Squeamishness of the Royal Kind

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1. Introduction

In this paper we are concerned with the notorious lack of hair ascribed to the French monarch as well as with his interest in exhibitions as stated in the following pair of sentences.

- (1) a. *The King of France is bald.*
b. *The exhibition was visited yesterday by the King of France.*

This pair exemplifies a peculiar contrast that has been discussed in the linguistic community at least since Strawson (1964). While hearers who are aware of the non-existence of a French king will feel squeamish about (1-a) they will judge (1-b) as plainly false.

Strawson (1964) explains this contrast along the following lines. As starting point, definite descriptions such as *the king of France* are taken to introduce a presupposition asking for the existence of a suitable referent¹. This contrasts with the Russellian treatment of definite descriptions, where this statement of existence is construed as part of the semantics proper. Under the presuppositional Strawsonian view, the hearer's squeamishness in case of (1-a) is expected: since his belief is contradictory to the presupposition he is not able to judge the sentence as either true or false. However, one would expect the same squeamishness in case of (1-b) along the same lines of reasoning.

Strawson took the observed judgements as a direct indication of the presuppositionality of the description in question. Since (1-a) induces squeamishness and (1-b) is judged as false, he concluded that the first carries the (failed) existential presuppositions while the latter does not carry that presupposition at all. He then resorted to the information structural notion of *topicality* to explain the presence/absence of the presupposition. Here topicality is understood in the *aboutness* sense, i.e. as marking

¹ We will ignore the presupposition of uniqueness here and in the following.

that constituent which denotes an object about which the sentence makes a claim. Strawson held the view that only topical definite descriptions exhibit their presupposition. Non-topical definite descriptions on the other hand experience *absorption* by the predicate (thus forming a kind of complex predicate), a process that basically erases the presupposition.

Von Fintel (2004) argued against both aspects of Strawson's explanation. First, truth value judgements cannot be directly taken as an indication of the presuppositionality of a sentence, he argues. In particular, a sentence such as (1-b) can be judged false despite a failed presupposition. Von Fintel proposes that the judgement of falsity in these cases can be explained by a pragmatic principle of *contextual revision* (based on an earlier proposal by Lasersohn, 1993). The rough idea is, that a hearer might revise his beliefs about a failed existential presupposition introduced by a definite description if this helps to falsify the sentence on independent grounds. At this point he opposes the second aspect of Strawson's explanation (i.e. that topicality induces squeamishness) by listing sentences judged as false despite the fact that they contain topical definite descriptions.

While we subscribe to von Fintel's argument that truth value judgements are not helpful for deciding questions of presuppositionality, we reject the second. In fact, we will defend the following hypothesis:

(2) **Squeamish Topic Hypothesis (STH)**

a topical definite description which is non-referring induces squeamishness

To this end, we will show that all arguments from (Lasersohn, 1993; von Fintel, 2004) against this hypothesis are flawed by either misanalysis of the information structural findings or by misconstrual of the context of occurrence of the definite description.

According to the hypothesis in (2) we expect squeamishness to arise with sentences that mark non-referring definites as topics. On the other hand we do not exclude that non-topical definite descriptions may give rise to presuppositions. In this position we differ from Strawson (1964), who put forth that the presupposition of definites vanish in the process of absorption, a position that cannot be upheld in light of the counterexamples of von Fintel (2004).

The remainder of this article is as follows. In Section 2 we will take a close look at alleged counter-examples to the STH and we will argue that each one is flawed in one way or other. The third section will introduce the approach to topic interpretation put forth by Endriss² (2009), which gives an explanation for the observation stated in the STH. In the fourth section we will discuss von Fintel's contextual revision principle in light of the preceding discussion and Section 5 will conclude this article.

² who happens to be co-referential with the second author of this article

2. Topicality Induces Squeamishness

In the following we will take a careful look at the data presented as counterevidence to the STH. We argue that most of the data do not actually threaten it but are misconceived w.r.t. the information structural findings.

Let us start with the following example uttered by ‘a speaker who points at an obviously empty chair’ (Lasersohn, 1993, ex. (2)).

(3) ^F *The King of France is sitting in that chair.*

Lasersohn observes that this statement in fact seems to be simply false, and he expresses doubt that this can be explained via a dependence on the topic-comment articulation of the statement. We think that it is highly implausible that (3) is *about* the King of France in the given scenario in the first place. Since there is an highly salient, obviously empty chair pointed at by the speaker (3) is more likely about that chair. In fact, once we unambiguously mark the definite as topical, we arrive at a sentence that strikes us as much more squeamish than false³. To this end, we make use of the fact that left dislocation in German has exactly the desired effect of marking the dislocated constituent as aboutness topic (cf. e.g. Frey, 2004)⁴.

(4) #*Der König von Frankreich, der sitzt auf diesem Stuhl.*
 the king of France RP sit-PRES on this chair
 ‘The King of France is sitting in this chair.’

It is even more plausible, however, that (3) constitutes an instance of a *topic-less* or *thetic* sentence. Such sentences are used to describe a state of affairs without being *about* an entity playing a role in the uttered proposition. Thetic sentences thus make good answers to questions like

(5) *What’s up?* or *What’s happening?*

Indeed, (3) makes perfect sense as such a thetic description of a state of affairs, subsequent to a corresponding question as in (5). In fact, in German a paraphrase of (3) in form of a *da* (engl. *there*) sentence strikes us as much more natural in this context⁵.

³ We abbreviate our descriptions of the facts by saying that a sentence is squeamish, instead of stating more precisely that it induces a feeling of squeamishness in a hearer on interpretation. We furthermore mark squeamishness by # and the judgement of falsity by ^F.

⁴ In the gloss, RP stands for *resumptive pronoun*.

⁵ Note that a paraphrase in English in form of a *there* sentence is ungrammatical due to the definiteness effect, i.e. the prohibition of definites in existential *there* sentences.

- (6) *Da sitzt der König von Frankreich auf dem Stuhl.*
 there sit-PRES the king of France on the chair

Crucially, *there* sentences have been argued to be stereotypical instances ofthetic sentences. So (3) cannot serve to counter the topic hypothesis: either it is read as athetic statement without any topic marking on neither the definite nor the demonstrative, or it is read as being about, i.e. with topic marking on the demonstrative rather than the definite.

The same criticism applies to the other alleged counterexamples from (Lasersohn, 1993, ex. (3),(4)):

- (7) a. ^F*The King of France is knocking on the door.*
 (uttered in a situation where no noise has come from the direction of the door)
 b. ^F*The King of France ate that sandwich.*
 (uttered in a situation where an obviously untouched sandwich is on the table)

First note that it would be rather peculiar to utter (7-a) out of the blue, i.e. when no noise has come from the door (in other words: when nothing has happened). If it is felicitous at all in such a context, it certainly is not about the king of France but athetic statement. The same holds for (7-b) although here the statement might also be about the salient sandwich. But again, it is rather unlikely that it is conceived as being about the king of France.

Von Stechow (2004) also presents examples in favour of the view that not all topical definites lead to squeamishness as the following

- (8) *Let me tell you about my friend, the King of France.*
^F*I had breakfast with* $\left\{ \begin{array}{l} \text{the King of France} \\ \text{him} \end{array} \right\}$ *this morning.*

First note that the second sentence of (8) sounds rather unnatural with the definite description instead of the pronoun, but let us assume for the moment that it is actually uttered in this way (we will come back to the matter of substituting the definite description by a pronoun below). Von Stechow notes that '*the second sentence [...] is plainly false. Nevertheless, it would appear to be about the king of France, since it occurs in a discourse that is meant to be about the king.*' But this is exactly the problematic aspect of (8). The context is not only meant to be about the king of France, it uses a definite description to introduce him into the discourse. Hence the crucial sentence to look at is the first and not the second. In fact, if we firmly believed in the

non-existence of the French king, we would object to this first sentence by means of a ‘*Hey, wait a minute*’ interruption and thus the question of truth or falsity of the second would not even arise. If, on the other hand, we accept the first sentence without comment, we can only do so by accepting the existence of a French king. But then this paves the way for the second sentence to make a false claim about that king. The following example (von Fintel, 2004, ex. 16) is flawed in the same way.

- (9) A: *Have you heard anything about the king of France recently? I think he may be getting old and decrepit.*
 B: *Well. ^FBill Clinton had breakfast with him last week and he looked just fine I hear.*

For (9) we are supposed to assume the role of an overhearer of a dialogue between A and B. As in the previous example, the definite description occurs in the initial part of the dialogue as part of A’s question. Hence, the first and more important point is whether we accept A’s question as felicitous. Once we do, it’s no surprise that we judge B’s utterance as false despite the fact that the king of France constitutes its topic. The same holds for the following example (von Fintel, 2004, ex. (16)), where the definite description is introduced in the first sentence.

- (10) *^FI had breakfast with the king of France this morning. ^FHe and I both had scrambled eggs.*

If the first sentence receives a truth value judgement (as false) then this requires that the existence of the king of France is acknowledged beforehand. For instance, von Fintel’s *contextual revision* procedure (that we will discuss below) works by revising the interpreter’s information state in a way that entertains the presupposition as a fact such that the interpreter can arrive at a truth value judgement despite a prior presupposition failure. But against such a revised information state that includes the information that the king of France exists, the second sentence is also judged false.

There is another problematic aspect with the examples above that stems from the fact that the definite description is used in the context preceding the sentence under consideration. Note namely that the sentences under consideration in (8) (in its more natural reading with a pronoun), (9), and (10) do contain a pronoun and not the definite description under scrutiny. Under the E-type view, where pronouns are resolved as definite descriptions themselves, one might predict the same presuppositions as for the antecedent. But then it is no surprise that no presupposition failure is observed on encountering the pronoun, as argued for the cases above. After all, if the sentence containing the antecedent is accepted, the presupposition is satisfied for any follow-up sentence containing a pronoun. However, under the *presupposition as anaphora*

resolution view (cf. e.g. van der Sandt, 1992), all that the pronoun introduces is the presupposition that demands the existence of an accessible discourse referent to which it can be resolved. So under this view (8) in the pronoun variant, (9) and (10) do by no means introduce a presupposition that demands the existence of a French monarch and hence we would not even expect squeamish feelings to arise.

So we conclude that all examples that have been put forth to counter a direct connection of topicality and squeamishness do not serve their purpose. Since none of them exhibits the required aboutness topicality on the definite in question the STH can still be maintained. In the following section we will give an explanation for the observations predicted by the STH.

3. Topic Establishment as a Speech Act

Endriss (2009) proposes a principle of topic interpretation that predicts the behavior stated in the STH. In more detail, she proposes that topic-marked DPs are interpreted via a *separate speech act of topic establishment*, resembling Strawson's (1964) speech function of *identifying reference*. This act of topic establishment has two essential functions. First it finds a suitable representative for the topic-marked DP. Starting from the assumption that all DPs are of generalized quantifier (GQ) type, she argues that one of the *minimal (witness) sets* of the involved GQ serves this purpose best, since it does not contain any 'superfluous' elements that are not characteristic of the GQ in question. The minimal (witness) sets of a generalized quantifier \mathcal{G} are defined as follows:

$$(11) \quad MW(\mathcal{G}) := \lambda P. \mathcal{G}(P) \wedge \neg \exists Q[\mathcal{G}(Q) \wedge \forall x[Q(x) \rightarrow P(x)]]$$

The second function of the act of topic establishment is the introduction of a *discourse referent* for the representative, which will then stand proxy for the original GQ in the originating speech act. In the following we will formally note this act of topic establishment for a topic marked constituent with semantics φ as

$$(12) \quad \text{Top}_X(\varphi)$$

where X is the discourse referent that is introduced by performance of the act. Crucially, the act of topic establishment is performed *before* the speech act under consideration. To illustrate, an assertion of a simple predicative statement such as (13-a) with the topic marking as indicated will receive the analysis (13-b), where $\&$ marks speech act conjunction, i.e. subsequent performance of the two involved acts.

- (13) a. [John]_T sleeps
 b. $\text{Top}_X(\lambda P.P(\text{john})) \ \& \ \text{assert}(\text{sleep}(X))$

Since the (unique) minimal witness set of the GQ $\lambda P.P(\text{john})$ is just $\{\text{john}\}$ the resulting interpretation in (13-b) has no visible semantic but only a discursive effect. First the topic (which happens to be John) is introduced. Then it is asserted that the topic has the property of sleeping. It is in this sense that the topic interpretation of (Endriss, 2009) captures the *aboutness* character of the form of topicality we look at⁶.

We can now investigate what this approach to topic interpretation predicts for non-referring topic-marked definite descriptions. To this end, we will compare its predictions w.r.t. a Strawson (i.e. presuppositional) and a Russellian (i.e. purely semantic) construal of the definite description.

Consider a Strawsonian construal of the definite description *the king of France* first, formally noted by means of the *iota*-operator as $\iota x.\text{kof}(x)$. Following common practice, we assume that $\iota x.P(x)$ denotes the (unique) object that has property P , if such an object exists. If such an object does not exist⁷, $\iota x.P(x)$ is undefined. With this construal, the analysis of the classical example (1-a) comes out as follows, if we assume that the definite description *the king of France* is topic-marked.

- (14) $\text{Top}_X(\lambda P.P(\iota x.\text{kof}(x))) \ \& \ \text{assert}(\text{bald}(X))$

Assuming that there is no king of France in the model and that $\iota x.\text{kof}(x)$ is hence undefined, we end up with a presupposition failure. But crucially, this failed presupposition concerns the Top act of topic establishment and not the assertion. Hence the topic act cannot fulfil its two functions (selection of a representative; introduction of a discourse referent) and therefore must fail.

Interestingly, we get the same effect with a non-presuppositional Russellian construal of the definite expression as in (15-a). The analysis of (1-a) with topic marking on the definite is given in (15-b) for this case.

- (15) a. $\lambda P.\exists x[\text{kof}(x) \wedge P(x)]$
 b. $\text{Top}_X(\lambda P.\exists x[\text{kof}(x) \wedge P(x)]) \ \& \ \text{assert}(\text{bald}(X))$

Assuming again that there is no object fulfilling the *kof* predicate, we note that the generalized quantifier in (15-a) is empty. This in turn makes it impossible to derive

⁶ The major theme of (Endriss, 2009) is a treatment of (truly) quantificational topic-marked DPs, where this approach is able to explain the exceptional wide scope behavior of indefinites, for instance. This constitutes a case where topic interpretation also has a semantic effect.

⁷ again we ignore the issue of uniqueness here

a suitable representative (i.e. to apply MW) and again the Top act of topic establishment necessarily fails.

We argue that this is the reason for the felt squeamishness of an interpreter when confronted with non-referring topic-marked definite descriptions – the squeamish feelings result from a failed speech act rather than from a failed presupposition. Crucially, the failed speech act is one of topic establishment and not the assertion proper. This explains why in this case no repair strategy such as von Fintel’s contextual revision can help. After all, the speaker tried to introduce a subject of conversation into the discourse, about which her assertion was supposed to be. But if there is no such subject it is hopeless to try to evaluate the assertion. This gives an explanation of the Squeamish Topic Hypothesis (2).

As seen before, this approach to topic interpretation yields the same (squeamish) result no matter which analysis for the definite description is assumed. But it seems to be the case that nevertheless a presuppositional construal is necessary in order to explain the full range of data. The following examples (slightly adapted) from (von Fintel, 2004, p. 277f) show this.

- (16) a. A: *What about this year’s Field Medal? Who was it awarded to?*
 B: ^F*It was awarded to the mathematician who proved the Goldbach Conjecture.*
 A: *Hey, wait a minute—I had no idea that someone proved the Conjecture.*
- b. *If this year’s Fields Medal is awarded to the mathematician who proved Goldbach’s Conjecture, my friend James (who hopes on it himself) will be quite disappointed.*

In the first example (16-a), A’s first question establishes the Field Medal as aboutness topic, while the *wh*-question induces a focus structure on B’s subsequent answer, putting the definite description *the mathematician who proved the Goldbach Conjecture* in focus. A can in turn respond to B’s assertion with a *Hey, wait a minute* reply, questioning the existence of a corresponding mathematician. This clearly shows that the non-topical, focussed definite description exhibits the existence presupposition we are interested in. The same point can be illustrated with (16-b). Here as well a corresponding *Hey, wait a minute* reply is felicitous, showing that the existence presupposition projects out of the *if*-clause.

Therefore it seems that we are faced with the following situation. Definite descriptions come with an existence presupposition. If this presupposition is not satisfied due to the lack of a referent, two situations may obtain. If the definite description is topical, the presupposition failure is non-recoverable due to the failure of the topic

establishment act, and hence the sentence as such is felt to introduce squeamishness. If on the other hand, the definite description is non-topical, the presupposition failure concerns the originating speech act, e.g. the assertion. In this case the sentence can recover from the presupposition failure and some additional pragmatic principle can nevertheless help the interpreter to derive a truth value judgement.

Let us illustrate these considerations again at hand of the classic examples in (1-a) and (1-b). Concerning (1-a), Strawson (1964) already observed that it induces squeamishness on the side of the hearer when uttered out of the blue. We would like to qualify this observation. It is well known that grammatical subjects stereotypically are marked for topicality. Since the definite description is the grammatical subject in (1-a), it may indeed be read as being topic-marked by default, which in turn leads to a failure of the topic establishment act and hence squeamishness according to our explanation from above. But note that once the definite is non-topical, (1-a) may also be regarded as false. Strawson makes this point by regarding the following context for (1-a).

- (17) Q: *What reigning monarchs are bald?*
 A: ^F*The king of France is bald.*

Again, the question induces an information structure that makes the definite description non-topical. And indeed, the sentence is felt to be false.

The same qualification concerns (1-b). Bearing the subject-as-topic preference in mind, the definite description *the exhibition* constitutes the topic in (1-b) by default. Assuming the existence of a suitable exhibition, the topic establishment act succeeds and it is asserted (about the exhibition) that the king of France visited it yesterday—which is indeed false, if there is no king of France. But once we change (1-b) so as to display *the king of France* as topic, we should observe squeamishness. At this point it is important not to make the same mistake as exhibited by (8)–(10) above. We may not precede (1-b) by any context that itself makes use of the definite description, e.g. by a question such as *What about the king of France?*. One way to avoid this pitfall is to rephrase (1-b) in active voice and rely on the subject-as-topic preference, as proposed by Strawson (1964) already.

- (18) #*The king of France visited the exhibition yesterday.*

Indeed, (18) induces squeamishness as opposed to (1-b). This illustrates once more that the information structural findings are crucial to an explanation of the observed squeamishness.

It remains to devise a principle that makes it possible to explain how an interpreter can derive at a judgement of falsity despite a failed presupposition, as in the many

cases seen above. In the following we will take a closer look at von Fintel's proposal concerning such a principle.

4. Contextual Revision

Von Fintel goes a long way to derive a principle of *conversational revision* that essentially allows a hearer to reject a proposition as false on grounds independent of a failed existence presupposition. Glossing over detail, the final version of his revision principle allows a hearer to revise his beliefs by removing propositions from a body of information D (i.e. his stock of knowledge), that (among others) were in D just because the falsity of the presupposition was in D . He should not remove, however, those propositions that

'could be shown to be true by examining the intrinsic properties of a contextually salient entity without at the same time showing that π [i.e. the presupposition] is false.' (von Fintel, 2004, p.290f)

Eventually, the hearer should then add the presupposition to D and see whether the so revised D verifies or falsifies the original sentence. Von Fintel arrives at this formulation that mentions the examination of intrinsic properties because the mere presence of a contextually salient entity is not enough to prevent squeamishness. In his words, *'the sentence has to make an independently falsifiable claim about the entity referred to.'* (von Fintel, 2004, p. 289; von Fintel's emphasis). If we take aboutness as the defining characteristic of topicality, we arrive at the following paraphrase of von Fintel's observation: a sentence may be judged true/false in case it is possible to read it as containing an *aboutness topic* different from the presupposition failure inducing item.

To exemplify, von Fintel argues that the squeamishness in case of (an out of the blue utterance of) (1-a) can be traced back to the lack of a contextually salient entity that a hearer could use as an independent foothold of rejection. However, the same sentence is felt to be false if presented as an answer to a question such as in (17). Von Fintel suggests that in this particular example a contextually salient entity needed for independent falsification is indeed present, namely the set of reigning monarchs, about which the sentence makes a false claim – hence the falsity judgement. But note that (1-a) is felt false in the same way in the context of the following question

(19) Q: *Who is bald?*

One would have to argue that in the case of question Q the corresponding contextual entity is something like the set of human beings, introduced by the *wh*-word. As men-

tioned in the previous section, examples like this rather point towards an information structural explanation. After Q, *the king of France* is focal and hence non-topical, which seems to facilitate a truth value judgement.

Another example that illustrates the conversational revision procedure at work is (1-b). Here a hearer can find a salient entity, namely the mentioned exhibition. By examining its properties, in this case by inspecting its visitors, a hearer could derive at a falsity judgement despite the failed presupposition of the royal definite description. It is puzzling, however, why the same reasoning should not apply to (18)⁸. Since the former is only the passivized variant of the latter, it induces the same presupposition failure. Furthermore, it contains the same entity (viz. the exhibition) of which a hearer could examine intrinsic properties to eventually arrive at a falsity judgement. Therefore, the principle of conversational revision should work for both sentences exactly alike. But this is not borne out, as discussed above. Again, an information structural explanation seems to stand a better chance, since passivization crucially changes grammatical functions and hence indirectly information structure due to the subject-as-topic preference.

If we furthermore take our observations in Section 2 seriously, sentences that expressthetic statements also come out as false quite naturally. According to our intuitions, the very title of von Fintel's paper constitutes a further example in this respect.

(20) *Would you believe it? The king of France is back!*

The initial question is again one that sets the stage for athetic statement. And indeed, the second sentence strikes us as false rather than squeamish in this context. If we are correct, then the contextual revision procedure from above cannot explain the truth value judgement. Neither the question, nor the second sentence make available any contextually salient entity that could be used as an independent foothold for falsification.

These cases ofthetic (and thus topic-less) sentences together with the cases non-topical definite descriptions from above lead to the following generalization: contextual revision is possible if the presupposition failure inducing item is *not* topical.

5. Conclusion

The final picture is this: non-referring definite descriptions that are marked as aboutness topic inevitably lead to squeamishness without the possibility of contextual revision. Non-referring definite descriptions that are *not* marked for topicality introduce

⁸ Unfortunately, von Fintel does not discuss (18).

a presupposition failure which can be overcome such that the sentence under consideration can receive a truth value nevertheless.

In the first case, the failed presupposition concerns the speech act of topic establishment, which therefore also fails. It lies in the nature of this speech act that there is no possibility of recovery and thus squeamishness is inevitably induced. In the second case, the presupposition failure affects the assertion. But here some procedure of contextual revision is active and makes a truth value judgement possible. As we argued above, this revision seems to be possible in a much wider range of cases than suggested by von Stechow (2004).

So it seems that Strawson (1964) was right all the way with his fundamental observation: the topical status of a non-referring definite description is the decisive category for the explanation of the squeamish feeling vs. truth value judgement contrast. And although his proposal for an analysis of the truth value judgement cases in terms of absorption cannot be sustained, aboutness topicality plays a role of major importance, contra to what his critics claim.

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