# **Explorations** in **Pragmatics**

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# Toward a Fregean pragmatics: Voraussetzung, Nebengedanke, Andeutung

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"The past is a foreign country: they do things differently there." (L. P. Hartley, *The Go-Between*, 1953)

#### Abstract

For Grice ([1967] 1989), a conventional implicature C associated with an expression E manifests the following two definitional properties: (i) by virtue of being conventional, C constitutes a non-cancelable aspect of the meaning of E, and (ii) by virtue of being an implicature, C's truth or falsity has no affect on the truth conditions of E. While this theoretical construct has become controversial of late (Bach 1999 consigns it to a chimerical status, while Potts 2005 attempts a partial rehabilitation, as we shall see below), the positing of material which does not affect the truth conditions of the primary asserted proposition has had a long if sometimes difficult history.

In his analysis of the semantics of natural language, Frege, especially in "Über Sinn und Bedeutung" (1892) and "Der Gedanke" (1918–19), investigated a variety of aspects of meaning that – in the terminology of modern pragmatic theory – do not constitute part of what is said. While two of the relations assumed by Frege, *Voraussetzung* (presupposition) and *Nebengedanke* (lit., 'side-thought'), foreshadow the Strawsonian notion of (semantic) presupposition for singular and quantified expressions respectively, a third Fregean relation, here dubbed *Andeutung*, directly anticipates the Gricean notion of conventional implicature. I shall explore each relation in turn and situate it within Frege's – and our – understanding of the different levels of meaning in natural language.

# 1. Voraussetzung: Presuppositional diagnoses of vacuous subjects

We begin our tour with the Aristotelian observation that a singular expression like (1) has two different opposed propositions:

- (1) Socrates is ill.
- (1')Socrates is not ill.
- (2) Socrates is well.

While (1) and (2) cannot both be true, even though (by assumption) every man is either ill or well, Aristotle explains that these statements may be simultaneously false, given the possibility that the name Socrates fails to refer:

For if Socrates exists, one will be true and the other false, but if he does not exist, both will be false; for neither 'Socrates is ill' nor 'Socrates is well is true', if Socrates does not exist at all. (Categories 13b17-19)

Thus (1) and (2) are contrary opposites, while a statement and its ordinary negation as in (1) and (1') are contradictories in that the affirmative and negative counterparts divide truth and falsity between them:

But in the case of affirmation and negation, whether the subject exists or not, one is false and other true. For manifestly, if Socrates exists, one of the two propositions 'Socrates is ill', 'Socrates is not ill' is true, and the other false. This is likewise the case if he does not exist, for if he does not exist, to say that he is ill is false, to say that he is not ill is true. (Categories 13b26-32)

While (1'), the contradictory of (1), does not entail the existence of Socrates, Aristotle also allowed for a narrow scope or predicate-term negation that does entail the subject's existence. This is typically rendered as S is not-P (or S is non-P), which predicates non-P-ness of S as opposed to denying P-ness of S as in (1'). (In Greek, the difference between denial and term negation is indicated by word order rather than hyphenation.) If S does not exist, it cannot be either P or not-P. Prefiguring the Russellian analysis, singular negative statements thus come out scopally ambiguous not (S is P) vs. S is not-P - and no presuppositions or truth-value gaps are invoked (cf. Horn 1989: Chapter 1, and Horn 2006 for more on Aristotle's theory of opposition).

For Frege (1892), on the other hand, a singular statement like (1) and its negation (1') both require the subject to exist. More exactly, (3) presupposes rather than states that the name Kepler refers.

- Kepler died in misery. (3)
- Kepler did not die in misery. (3')

The non-vacuousness of the subject term is a presupposition for both this statement and its negative counterpart, (3'):

If anything is asserted there is always an obvious presupposition [Voraussetzung] that the simple or compound proper names used have reference. If one therefore asserts 'Kepler died in misery', there is a presupposition that the name 'Kepler' designates something; but it does not follow that the sense of the sentence 'Kepler died in misery' contains the thought that the name 'Kepler' designates something. If this were the case the negation would have to run not "Kepler died in misery" but "Kepler did not die in misery or the name 'Kepler' has no reference". That the name 'Kepler' designates something is just as much a presupposition for the assertion "Kepler died in misery" as for the contrary assertion. (Frege 1892: 34-35)

Similarly, (4a) and (4b) presuppose that someone did in fact discover the elliptic form of the orbits.

- a. Whoever discovered the elliptic form of the planetary orbits (4) died in misery.
  - b. Whoever discovered the elliptic form of the planetary orbits didn't die in misery.

Frege regarded it as "an imperfection of language" that a given expression (Kepler, whoever discovered X) can fail to designate an object – given the possibility of presupposition failure – while having a grammatical form that nominates it to do so.

For Frege, as for his intellectual heir Strawson (1950), the notion of presupposition has semantic status as a necessary condition on true or false assertion, but more recent work has taken the commitment to existential import in such cases as constituting a pragmatic presupposition or an implicature (cf. e.g., Wilson 1975; Grice 1989: Essay 17). In fact, the earliest pragmatic treatments of the failure of existential presupposition predate Frege's analysis by two decades. Here is Christoph Sigwart ([1873] 1895) on the problem of vacuous subjects:

As a rule, the judgement A is not B presupposes the existence of A in all cases when it would be presupposed in the judgement A is B... Socrates is not ill' presupposes in the first place the existence of Socrates, because only on the presupposition [Voraussetzung] of his existence can there be any question of his being ill. (Sigwart 1895: 122 [emphasis added]).

Note in particular the contextual nature of the presupposition and the proto-Strawsonian flavor of the conclusion. Further, unlike either Frege or Strawson, Sigwart allows for wide-scope (presupposition-canceling) negation as a real, although marked, possibility, although to be sure (1') is 'commonly understood' as implying that Socrates is alive.1

If we answer the question 'Is Socrates ill?' by yes or no, then - according to our usual way of speaking - we accept the presupposition [Voraussetzung] upon which alone the question is possible; and if we say of a dead man that he is not ill, we are guilty of using our words ambiguously. It may still, however, be claimed that, by calling such an answer ambiguous, we admit that the words do not, in themselves, exclude the other meaning; and that formally, therefore, the truth of the **proposition** [Socrates is not ill] is incontestable [if Socrates is not alive]. (Sigwart 1895: 152 [emphasis added])

Like Strawson, Frege declined to recognize the possibility of a negation of Kepler died in misery that has precisely the form of his disjunction Either Kepler did not die in misery or "Kepler" does not refer, taking this instead to be a reductio ad absurdum. History has challenged this judgment, often through the consideration of examples like The King of France isn't bald because he doesn't exist, although Burton-Roberts (1989) and Cohen (2000), among others, have marshaled arguments against the viability of semantic external (presupposition-free) negation. (See Horn 1989 for a review of the issue, and von Fintel 2004 for a valuable recent take.)

# 2. Nebengedanke: Universal import as "side-thought"

Less well known than Frege's Strawsonian account avant la lettre of the presuppositions induced by singular statements is his anticipation of the presuppositional analysis of existential import in universally quantified statements. In classical logic, universals are standardly taken as entailing existence of the set over which the universal operator ranges, so that for Aristotle the A-form universal statement All F is G entails the corresponding I-form particular statement Some F is G.

In modern predicate logic, on the other hand, universals ranging over empty sets yield vacuous truth. The inference from All F are G to the particular Some F are G (or existential There are Fs) is thus invalid: If

there are no Fs, the former is true and the latter false, which in turn blows up the traditional square of opposition (cf. Horn 1997 for a survey of treatments of existential import across the ages, and Geurts, to appear, for a rather different view). Taking its cue from Russell, modern symbolic logic has severed the treatment of definites and other singular statements from that of universals – if France is a republic, The King of France is bald is automatically false but All kings of France are bald is automatically true. This in turn is a direct result of the Russellian (and Fregean) position that universals like (5a) and (5b) are disguised material conditionals, so that (5a) translates as (5b).

- All seats are taken. (5)
  - b.  $\forall x (Sx \rightarrow Tx)$

If the set of seats S is empty, the conditional is automatically true.

For Hart (1951) and Strawson (1952), this result flies in the face of ordinary usage and is thus intolerable. Strawson cites the intuition that empirical universals like (6a) and (6b)

- a. All (the) seats in the room are taken. (6)
  - b. Every coin in my pocket is made of copper.
  - c. All trespassers will be prosecuted.
  - d. {Every/Any} perpetual motion machine will violate the laws of thermodynamics.

are clearly not true if the room is empty of seats or my pocket of coins (although he acknowledges that this intuition is a bit shakier when it comes to lawlike generalizations as in (6c) and (6d) [cf. Moravcsik 1991, and Horn 1997 for elaboration]).<sup>2</sup>

On Strawson's view (1952: 177), no universal statement - indeed, no quantified statement corresponding to any of the four classical Aristotelian forms - is capable of being true or false unless its presupposition, corresponding to the existential import of the subject term, is satisfied: "It is necessary that the subject-class should have members." For Strawson, this presupposition of import is a necessary condition for the truth (as well as the falsity) of statements like those in (6).

The presuppositional stance taken by Strawson in fact was promoted three quarters of a century earlier in the very first volume of Mind by the now forgotten Dutch philosopher J. P. N. Land. Rejecting Brentano's attempt to reduce categorical (subject-predicate) universal propositions to negative existentials, so that All men are mortal comes out as 'There is not an immortal man', Land comments:

In translating categorical universals into existential negatives, part of the meaning is dropt by the way...In an ordinary proposition the subject is necessarily admitted to exist, either in the real or in some imaginary world assumed for the nonce...When we say no stone is alive, or all men are mortal, we presuppose the existence of stones or of men. (Land 1876: 290 -91 [emphasis added])

Thirty years later, the Hart/Strawson presuppositional alternative to the received view was anticipated by Frege (1906: 305) as well, although unlike Land he ultimately refused to sign on. In reply to a now lost missive of Husserl's, Frege begins with a critical review of the former's proto-Strawsonian line:

You write, 'The form containing "all" is normally so understood as that the existence of objects falling under the subject and predicate concepts is part of what is meant [mitgemeint] and is presupposed as having been admitted.' It seems to me that you can only give this the sense you want it to have if you strike out the words 'part of what is meant'. For if existence was part of what is meant, then the negation of the proposition 'All m are n' would be 'There is an m that is not n, or there is no m.' But it seems to me that this is not what you want. You want existence to be presupposed as having been admitted, but not to be part of what is meant. (Frege 1906: 306 [emphasis added])

Note that the position Frege assigns to Husserl on universals is directly parallel to Frege's own position on names, and that the argument from negation he provides here is itself parallel to that he invoked for his Kepler sentences as summarized in §1 above. But Frege finds such an approach uncongenial in this case:

Now I use the expressions containing 'all' in such a way that existence is neither part of what I mean nor something I presuppose as having been admitted. Linguistic usage cannot be absolutely decisive here...For one must always strive to go back to the elements, to the simple. It must be possible to express the main thought without incidental thoughts (Nebengedanken). This is why I do not want the incidental thought of existence to be part of what I mean when I use an expression containing 'all'. (Frege 1906: 307 [emphasis added])

Nor, as the highlighted passage makes clear, can this particular Nebengedanke – literally, side-thought – be 'presupposed as having been admitted' in the way that non-vacuous reference is presupposed for names like Kepler. But despite Frege's disclaimer on the irrelevance of linguistic usage to the formal analysis, it might be argued that his treatment of import as a Nebengedanke, if fleshed out as a pragmatic aspect of communicated meaning rather than a semantic implication, actually allows for a subtler and more insightful account of quantified statements than does the presuppositional story.<sup>3</sup>

The question of the proper treatment of existential import in universals, a topic of debate from Apuleius, Boethius, and Abelard to Frege, Russell, and Strawson, did not even escape Lewis Carroll, who in his Symbolic Logic - published ten years before Frege penned his letter to Husserl reviews the various options for analyzing import before being led, by the context-dependent evanescence of import in examples like those in (6). down the obvious rabbit-hole:

Another view is that the Proposition "all x are y" sometimes implies the actual existence of x, and sometimes does not imply it; and that we cannot tell, without having it in *concrete* form, which interpretation we are to give to it. This view is, I think, strongly supported by common usage; and it will be fully discussed in Part II. (Carroll [1896] 1958: 196, emphasis in original)

Unfortunately for us, the details of this view evidently proved so thorny to fully discuss that before preparing Part II of his Symbolic Logic, Carroll died.

# 3. Andeutung and conventional implicature

In addition to the *Voraussetzung* of reference for names, constituting part of what is admitted but not part of what is (in the strong sense) meant in singular statements, there is thus the weaker Nebengedanke of existence for universally quantified statements, an essentially pragmatic relation which involves material neither presupposed as admitted nor meant. The former constitutes a necessary condition for an assertion to be made; the latter does not. But this does not exhaust the inventory of Fregean relations for subsemantic implication.

Considering a spectrum of linguistic phenomena ranging from particles like although, but, yet, still, and already to active/passive alternations and word order, Frege (in "Über Sinn und Bedeutung" and especially in "Der Gedanke") described these expressions and constructions as devices for "aiding the hearer's understanding" without, however, affecting the propositional content (or the thought, in Frege's parlance). Here is Frege on p although q as against p and q:

Subsidiary clauses beginning with 'although' [obgleich] also express complete thoughts. This conjunction...does not change the sense of the clause but only illuminates it in a peculiar fashion (footnote: Similarly in the case of 'but' [aber], 'yet' [noch].) We could indeed replace the conditional clause without harm to the truth of the whole by another of the same truth value; but the light in which the clause is placed by the conjunction might then easily appear unsuitable, as if a song with a sad subject were to be sung in a lively fashion. (Frege 1892: 38)

As evidence for Frege's position that the difference between p and q and p although q does not affect the truth conditions of the proposition involved, consider a scenario in which I bet you that the Democrats will win the next election although they are not formally opposed to same-sex marriage (reputed to be a major consideration by voters who re-elected Bush in 2004), and it turns out that the Democrats do win - but that polls show voters' attitudes toward same-sex marriage were not a factor at all (or were a reason for supporting Democrats). Then the although-condition in our bet is not satisfied, but it is clear (to me, at least) that I have won the bet, for which all that matters is the Democrats' victory.

Frege provides an inventory of phenomena lending themselves to similar analyses in "Der Gedanke", beginning with the choice between the neutral horse [Pferd] and its evaluatively laden counterparts like steed or nag [Ros, Gaul, Mähre]:

It makes no difference to the thought whether I use the word 'horse' or 'steed'... The assertive force does not extend over that in which these words differ...Much of language serves the purpose of aiding the hearer's understanding, for instance the stressing of part of a sentence by accentuation or word-order. One should remember words like 'still' and 'already' too. With the sentence 'Alfred has still not come' one really says 'Alfred has not come' and, at the same time, hints [andeutet] that his arrival is expected, but it is only hinted. It cannot be said that, since Alfred's arrival is not expected, the sense of the sentence is therefore false. The word 'but' differs from 'and' in that with it one intimates [andeutet] that what follows it is in contrast with what would be expected from what preceded it. Such suggestions in speech make no difference to the thought. A sentence can be transformed by changing the verb from active

to passive and making the object the subject at the same time...Naturally such transformations are not indifferent in every respect but they do not touch the thought, they do not touch what is true or false. (Frege 1918-19: 295–96 [emphasis added])

The thought in Frege's theory of meaning corresponds to the notion of what is said in Gricean and neo-Gricean theory, 4 so the key claim is that the phenomena under discussion here do not affect the determination of what is said. In stating Alfred still has not come, I say that he hasn't come, while "hinting" that his arrival is expected; p but q differs from p and q in "intimating" a sense of contrast. These two verbs in Geach's rendering hint and intimate - both translate Frege's andeuten, a verb that we can accurately (with Gricean hindsight) gloss as '(conventionally) implicate' and that we can nominalize as Andeutung. While the historical significance of Frege's remarks in this area is often overlooked (for example, Frege is nowhere mentioned in Chris Potts's [2005] major new monograph on conventional implicature), the Andeutung relation, for a component of linguistic meaning that does not affect propositional content or "touch what is true or false", is a direct precursor of Grice's conventional implicature. (As a logician, Frege was less concerned with the pragmatic phenomena to which Grice developed the more familiar notion of conversational implicature.)

Among Frege's intriguing (if largely overlooked) analyses in this area is his discussion (from the 1897 Logic appearing in his Posthumous Writings [Frege 1897: 242]) on the division of labor between semantics and discourse pragmatics. This passage appears in his posthumously published 1897 "Logic", just after a discussion of how the addition of particles like ah and unfortunately or the replacement of dog with cur "makes no difference to the thought":

The distinction between the active and passive voice belongs here too. The sentences 'M gave document A to N', 'Document A was given to N by M'. 'N received document A from M' express exactly the same thought; we learn not a whit more or less from any of these sentences that we do from the others. Hence it is impossible that one of them should be true whilst another is false. It is the very same thing that is here capable of being true or false. For all this we are not in a position to say that it is a matter of complete indifference which of these sentences we use...If someone asks 'Why has A been arrested?' it would be unnatural to reply 'B has been murdered by him', because it would require a needless switch of the attention from A to B. Although in actual speech it can certainly be

# very important where the attention is directed and where the stress falls, it is of no concern to logic. (Frege 1897: 242 [emphasis added])

As we see, Frege's account of those alternations that involve the packaging of content motivated by considerations of what the Prague school linguists were later to dub functional sentence perspective - the choice between allosentences (Lambrecht 1994) involving active/passive pairs or alternants involving indirect converses (Cruse 1986: §10.7) like give and receive, motivated in each case by the goal of mapping topics into subject position – also offers a prescient foreshadowing of the modular approach to meaning in natural language: render unto logic what is relevant to sense, reference, and truth conditions, render unto pragmatics what is relevant to usage so long as it concerns distinctions without a difference to the thought or propositional content.

Summarizing, we have the following cases in Table 1. The examples above the line are explicitly discussed by Frege (1892, 1897, 1918-19); those below the line have either been analyzed similarly in recent work (particularly in terms of conventional implicature; see below) or naturally lend themselves to analogous approaches.

For Frege, these Andeutungen (unlike semantic presuppositions, his Voraussetzungen) do not constitute truth conditions (as opposed to use conditions) of the proposition in which they occur or contribute to its sense or reference. Similarly for Grice ([1967] 1989), a Conventional Implicature of  $\phi$  is an aspect of the meaning of  $\phi$  that does not affect  $\phi$ 's truth conditions (i.e., does not affect what is said) but is part of the idiosyncratic lexical or constructional meaning of the expressions involved. There is an overlap between Grice's illustrations and Frege's, notably including but, for which the Gricean analysis -p but q says what p and q does but implicates contrast - directly echoes the Fregean (although neither actually counts for the full range of contrasts to which but can allude).

Similarly, consider too or also, as in (7):

- a. GEORGE is worried about the war too.
  - b. George is worried about the war.
  - Someone else [accessible in the context] is worried about the war.

Table 1. "Andeutungen", after Frege

Expression [vs. unmarked alternative]	Andeutung
rege's examples	
Alfred has not <u>yet</u> come. [vs. Alfred has not come]	Alfred's coming is expected.
B received C from A, B was given C by A [vs. A gave C to B]	B is the topic of discussion
B was murdered by A [vs. A murdered B]	B is the topic of discussion
A murdered B [vs. A murdered B]	B is the topic of discussion
$p \underline{but} q [vs. p and q]$	there is a contrast between p, c
p although q [vs. $p$ and $q$ ]	p is surprising, given q
Ah, p; unfortunately p [vs. $p$ , simpliciter] <sup>5</sup>	S has relevant attitude toward
The cur [vs. The dog] growled at us.	neg. evaluation of referent
The <u>steed</u> [vs. <i>The horse</i> ] raced around the track.	pos. evaluation of referent
ther examples	
F[Hercules] lifted the rock too. [vs. prejacent, i.e., same sentence minus too]	Some other agent (identifiable in the context) lifted it
Even $_F$ [Hercules] lifted the rock. [vs. prejacent]	other, less surprising agents d
Fr. <u>Tu</u> es soûl [vs. <u>Vous</u> êtes soûl]; similarly, Ger. <u>du</u> [vs. Sie], Sp. <u>tu</u> [vs.	∃ sufficient degree of solidari between S, H (or S>H in status)
usted]	<i>suitus)</i>

Unlike entailments or logical presuppositions, the inference induced by too in (7a) is irrelevant to the truth conditions of the proposition: (7a) is true if and only if (7b) is true. The inference from (7a) to (7c) is not cancelable without anomaly (#GEORGE is worried about the war too, but he's the only one), but it is detachable in the sense that the same content is expressible in a way that removes (detaches) the inference, as in (7b).<sup>6</sup> As such, this relation straddles the boundary between pragmatics and semantics. It is semantic insofar as it involves an aspect of the conventional meaning of a given expression rather than being computable from general principles of rational behavior or communicative competence, but it is pragmatic insofar as it involves considerations of appropriateness rather than truth of the sentence in which it appears.

The notion of conventional implicature has had a somewhat rocky history. Karttunen and Peters (1979) proposed folding the better established (but, they argue, inconsistently defined and poorly understood) relation of presupposition into conventional implicature, for which they offered a compositional treatment within an extended version of Montague Grammar. Their classic example, explored in considerable depth, involves even:

- a. Even BILL likes Mary. (8)
  - b. Bill likes Mary.
  - c. Existential Implicature: There are other x under consideration besides Bill such that x likes Mary.
  - d. Scalar Implicature: For all x under consideration besides Bill, the likelihood that x likes Mary is greater than the likelihood that Bill likes Mary.

In the Karttunen and Peters analysis, (8a) entails (and indeed is logically equivalent to) (8b) while conventionally implicating both (8c) and (8d) (or the conjunction of the two).<sup>7</sup>

For Bach (1999), on the other hand, conventional implicature is a myth; alleged instances in Grice or Karttunen and Peters (or indeed, in Frege) involve either secondary aspects of what is said (as with even, but, although, still, and similar particles) or higher-level speech acts (as with adverbial modifiers like frankly or to tell the truth).

In his book-length treatment of the relation, Potts (2005) retains Grice's brand name but alters the product by restricting its application to expressives (that jerk), supplements (e.g., non-restrictive relatives and appositives), epithets, and honorifics. Potts follows Bach in arguing for the

asserted or, in his terminology, "at-issue" status of the but/even class. Similarly, Stanley (2002) proposes a general constraint on the relation of what is said to what is communicated, his "Expression-Communication Principle", which he points out is inconsistent with conventional implicature, Kaplan (2004) has recently argued for an extended notion of Truth-Plus to deal with the contribution of expressives, while Iten (2005) – from the perspective of Relevance Theory - has presented a number of challenges to the Fregean-Gricean consensus (endorsed also by Williamson, to appear) on the status of Andeutungen/conventional implicatures.

But a stronger case can be made for the defense, whether or not it would finally prevail in the court of scholarly opinion. Arguably the strongest case for conventional implicatures (or Andeutungen) is based on T/V pronoun choice, as in the distinction between tu and vous in French or du and Sie in German. This distinction does not involve what is said, it "makes no difference to the thought", but it does involve conventional aspects of meaning (and no inference calculable from the maxims).8 These expressions also raise questions for Potts's generalization (2005: 7, [2.5]) that "No lexical item contributes both an at-issue and a CI [conventional implicature] meaning", since such pronouns contribute both a secondperson referent and an appropriateness condition. The choice between Tu es soûl and Vous êtes soûl is clearly based on the speaker's assessment of social appropriateness and not truth conditions. Similar remarks could be entertained for natural gender, such as the choice between he and she in English or analogous gender distinctions in other languages. Thus in observing "Tu es soûl", it is not part of the thought or of what is said that I believe a certain social relationship obtains between us OR that I believe you to be male; both propositions are indeed communicated, but what is said is simply that you are drunk.<sup>10</sup>

Another question is whether the notion of secondary assertion, invoked in one form or another by both Bach (1999) and Potts (2005), will suffice for the full range of cases under discussion. Thus, for example, a statement with a non-restrictive relative clause – as in Frege's (1892: 38) celebrated example in (9)

- (9) a. Napoleon, who recognized the danger to his right flank, himself led his guards against the enemy position.
  - b. Napoleon recognized the danger to his right flank.
  - c. Napoleon himself led his guards against the enemy position.

- clearly does involve two "at-issue" or asserted propositions, even if one assertion (that in the relative clause, here [9b]) is relatively backgrounded. As Frege points out (although others have challenged the claim), the falsity of either (9b) or (9c) results in the falsity of (9a). One of the strongest arguments for Frege's dual-assertion analysis of such cases is the possibility of slipping in an overt performative, which would be inconsistent with the non-restrictive relative being merely presupposed or implicated:
- a. This administration's policy on Iraq, which I hereby endorse, (10)is morally bankrupt.
  - b. The qualifications of this woman, whom I hereby pledge to support, are unquestionable.

Similar results hold for the not only p but ({also, even}) q construction (Horn 2000), in which p and q are both "at issue", in Potts's sense, but q is foregrounded over p (whether or not q in fact entails p in a particular instance). Once again, the evidence from the distribution of overt performatives indicates that both p and q are put forward as assertions, promises, etc., as seen in the googled attestations in (11):

- a. Not only do I hereby retract my claim, but I also hereby (11)apologize to the cattlemen in the great state of Texas.
  - b. Not only do I promise to be a good and faithful husband to you, but also to be a patient, loving father to [children's names].

But does this possibility extend to but, still, even, and similar particles, or to evaluatively laden epithets, or to the use of T and V second person singular pronouns? I know of no examples that can be used to argue the point. In these cases – contra Bach (1999), Stanley (2002), Potts (2005), and Iten (2005) - the Fregeo-Gricean line remains eminently plausible (cf. Williamson, to appear, for a concurring analysis). Nor are these the only expressions that lend themselves to this approach.

# 4. Andeutung and the theory of descriptions

It would appear that the reports of the death, or even moribundity, of conventional implicature, as proclaimed by Bach and partially seconded by Potts, were premature. Another candidate for the inventory is definiteness. Szabó (2000) and Ludlow and Segal (2004) have recently proposed that indefinite and definite descriptions have the same "semantics", that of the existentially quantified expression advocated by Russell for the former. On the Russellian theory of descriptions (Russell 1905), which has just celebrated its centenary, (12a) and (12b) would be assigned the logical forms in (13a) and (13b) respectively,

- (12)a. I devised a theory of descriptions.
  - b. I devised the theory of descriptions.
- (13)a.  $\exists x [t\text{-of-d}(x) \& I\text{-devised}(x)]$ 
  - b.  $\exists x [t-of-d(x) \& \forall y(t-of-d(y) \rightarrow y=x) \& I-devised(x)]$

Indefinites assert existence; definites assert both existence and uniqueness. For Szabó, and Ludlow and Segal, (12a) and (12b) are both assigned the simple existential logical form in (13a), the difference in import between the two being treated as "pragmatic". 10 But as Abbott (2003) has pointed out, without a conventional distinction between indefinites and definites, there is nothing to run a pragmatic account off. A more plausible position is that what the definite article adds is a conventional implicature.

On this view, while indefinites and definites share the same logical form, there is indeed a conventional distinction between them. But, contra Szabó, and Ludlow and Segal (inspired by Heim 1982), the conventional meaning of a definite must involve not the givenness or familiarity of the nominal introduced by the but its uniqueness within a given context - or, more generally in the light of plural and mass NPs, its maximality (see Sharvy 1980, and Brogaard 2006 on maximality and plural definites). Familiarity can then be derived pragmatically from the conventional import of definite descriptions, which is consistent with the fact that - as Ludlow and Segal (2004: 425) concede - the familiarity or givenness condition may be "overridden", where its treatment as a conventional implicature would predict non-cancelability.

Other problems for familiarity-based accounts (cf. also Kempson 1975; Hawkins 1991; Birner and Ward 1994; Abbott 1999, 2003, to appear;

Brogaard 2006) include the fact that many if not most definites (over 60 percent of them in Swedish and English texts) introduce discourse-new entities (Fraurud 1990; Poesio and Vieira 1998) and the fact that even if we were to weaken the familiarity requirement to Prince (1992)'s hearer-old category (essentially yielding the account of Christophersen 1939) there are counterexamples involving new-information definites, including those in superlatives or there-existentials, or Abbott's example (14), where Hfamiliarity is explicitly cancelled:11

The new curling facility here, which I assume you haven't heard (14)of, is the first such facility of its kind in the nation.

Further, as Szabó concedes, there are also well-formed indefinites corresponding to entities that are not novel (even within a short discourse). In the example below, Boston Celtics executive Ainge is reacting to his team's loss to the Sonics [emphasis added]:

Danny Ainge says he's not really looking at W's and L's [wins and losses] at this point of the season. He wants to see growth, effort, and togetherness. Last night, he saw a team start out hot (7–0) and then he saw a team relax. feeling that the Sonics would do what we all expected they'd do - call in the dogs, put out the fire, and head for the airport. (Boston Globe online, 17 November 2005; both instances of a team refers to the Celtics)

Some of these points were anticipated by Kempson (1975), who argues (§8.4) that hearer-familiarity can't be entailed or conventionally implicated but should instead be pragmatically derivable along standard Gricean lines. Further, she maintains (§5.5), it is doubtful that the uniqueness relation is one of entailment; indeed (§6.1–§6.2), definites and indefinites are identical except for the syntactic feature [+def] which has no semantic import. But that brings us back to the question of how we are to distinguish the CN from a CN. Biting the bullet, Kempson maintains that the versions of (15a) and (15b) with the and a are in fact "synonymous" (1975: 125).

- (15)a. (The/A) glass has fallen on the floor.
  - b. (The/A) man hit me.

But even if the definite and indefinite versions are truth-conditionally equivalent, there must be a conventional difference between the two.

One crucial prediction of the proposed account (or those of Hawkins 1991; Gundel, Hedberg, and Zacharski 1993; and Abbott 2003 on which it is partly based) is the asymmetry between the treatment of definites and indefinites, which is preserved from the Russellian treatment but in a pragmatically modified version: while definites conventionally signal uniqueness (not familiarity!), indefinites only conversationally implicate non-uniqueness. We are dealing here with standard Q-based implicature (Horn 1972, 1989; Levinson 2000) generated by scales defined in turn by unilateral entailment, as in the examples in (16):

In each case, the use of a weaker value (e.g., possible, most, a) suggests that, for all the speaker knows, no stronger value on the same scale (certain, all, the) could have been substituted salva veritate. Indeed, a quantity-based analysis of indefinites was in fact proposed by Grice in his first explicit discussion of generalized conversational implicature, albeit in relation to the inference drawn from the use of the non-specific an X as opposed to the possessive description Y's X rather than to a definite description per se:

When someone, by using the form of expression an X, implicates that the X does not belong to or is not otherwise closely connected with some identifiable person, the implicature is present because the speaker has failed to be specific in a way in which he might have been expected to be specific, with the consequence that it is likely to be assumed that he is not in a position to be specific. This is a familiar implicature situation and is classifiable as a failure, for one reason or another, to fulfill the first maxim of Ouantity. (Grice 1989: 38 [emphasis added])

More specifically, the relation of the to a involves a privative dyad of the form <S, W> such as those in <thumb, finger>, <square, rectangle>, <himself, him>, or <this, that>, in which the stronger value S is marked for some feature with respect to which the weaker value W is unmarked, and hence yields a more informative assertion in non-downward-entailing contexts.

Szabó (2000: 32) critiques the scalar implicature analysis of indefinites for failing to capture the (putative) parallel between indefinite and definite descriptions:

I think the chief advantage [of his proposal over the Russellian account] is the possibility of a symmetric treatment of implications of uniqueness and non-uniqueness. Consider (17) and (18)

- Russell was the author of the Principia Mathematica.
- (18)Russell was an author of the Principles of Mathematics.

Given that Russell co-authored the Principia with Whitehead and wrote the Principles alone, both of these sentences are anomalous.

But as Abbott (2003: 28) notes (cf. also Brogaard 2006), the behavior of (17) vs. (18) is asymmetric; in the pair below, "There is a clear sense in which the utterer of (19a) contradicts himself, whereas the utterer of (19b) does not."

- (19)a. #Russell was the author of *Principia Mathematica*; in fact there were two.
  - b. Russell is an author of Principles of Mathematics, in fact the only one.

The asymmetry of conditions on a and the is also supported by the behavior of the indefinite cross-linguistically as "the unmarked determiner" as demonstrated by Farkas (2006) and Farkas and de Swart (2005): It is unmarked with respect to partitivity and binding constraints as well as the constraints governing (in)definiteness per se. In addition, we can adduce positive evidence for an informativeness-based scale of the form < the, a>:

#### a. Paradigmatic Contrast (20)

Tenant to guest: "Did you find a towel?" Guest to tenant: "I found the towel." (Elinor Lipman, The Pursuit of Alice Thrift, 2003)

# b. Syntagmatic Contrast

- Deforestation "was a or the major factor" in all the collapsed societies he describes, while climate change was a recurring menace. (Jared Diamond, quoted in NYTBR review by Gregg Easterbrook, January 30, 2005)
- "We're supposed to tend to a bunch of Africans killing each other? Why, because we're Americans? The answer is...Yes. Because we're Americans. Because we're a

nation, perhaps the nation, that's supposed to give a damn." (Federal judge on "Boston Legal", ABC-TV, on U.S. complicity in Sudan massacre)

- c. Scalar Diagnostics (data culled from Google)
  - Yet time and again, North Korea is cited as not only "a" but "the" major threat to US security.
  - His Divine Death was not only an Answer, but The Answer.
  - Graham claims that cancer selection is **not a but the** driving force in the emergence of complex animal life.
  - I do not aspire, like some others, to creating "a" or even "the" philosophy of mathematics education.
  - So Lufthansa is  $\mathbf{a}$  or even the German airline.
  - Thus, the relations between Europe and Islam inside and outside Europe - is a if not the major challenge of our
  - in the majority of cases empirical investigation and the scientific pursuit of evidence is at least a, if not the proper way to proceed in forming beliefs

For additional attested examples, see Abbott (2003, to appear) and Horn (2005); note in each case the irreversibility of a and the, typical of scalar oppositions, and the role of uniqueness rather than familiarity in defining the relevant scale.12

Another argument for the centrality of uniqueness over familiarity in the distribution of definite descriptions can be constructed from the contrast between (21a) and (21b). (Assume that there is only individual John Bolton, and thus that we are dealing with the "non-restrictive" reading of the modifier.)

- a. A churlish John Bolton (...reacted angrily to the committee) (21)
  - b. The churlish John Bolton (...was a poor choice to be UN ambassador)

While the indefinite in (21a) suggests a temporary state, the definite in (21b) indicates a permanent condition. Further, the use of the indefinite suggests a multiplicity of (potential) Bolton-stages or guises, whereas the definite presents a property of the individual without individuating among stages. If I didn't know him or his reputation, I could report that A rude and obnoxious John Bolton shouted at me on my way into the meeting, thereby Q-implicating that for all I know he isn't always (or permanently) rude and obnoxious, just as if I assume (counterfactually, if reports can be trusted) that he really doesn't behave that way all the time I'd use the indefinite. In either case, the same sort of <the, a> scale operates in this [Det Adj PN] context that operates in the ordinary uniqueness/maximality cases.

For Hawkins (1991), The F is G entails that there is only one (salient) F assumed by the speaker to be identifiable by the hearer. While I agree that an assumption of unique identifiability is indeed part of a definite's conventional meaning, is it part of the entailed, truth-conditional meaning of the statement, or just part of its appropriateness conditions? The main argument for a conventional implicature/Andeutung approach is that there appear to be no cases in which a statement with a definite description is ever judged false on the grounds that uniqueness/maximality is violated, in the way that it may be when the existential premise fails:

- a. The King of France isn't bald (because) there isn't any. (22)
  - b. #The consul of Illocutia isn't bald (because) there are two of them.

Is The F is G ever plausibly taken to be false (or even wrong) on the grounds that there are two Fs, indeed even two salient Fs in the context? If I say "The book is blue", intending on picking out a particular blue book on the table, and there's another book that may or may not be hidden from me, and you don't know which one I meant, that makes my statement hard for you to evaluate, to be sure, and potentially inappropriate (if I knew about that book), but does it make it false? Or compare (23) with (23'):

- A: The baby is crying. (23)
  - B: #{That's false/The baby's not crying}, there's LOTS of babies here!
- A: The baby is crying. (23')
  - B: What do you mean, "THE baby"? There's LOTS of babies here!

When uniqueness/maximality is not satisfied, the result is more reminiscent of the non-satisfaction of a conventional implicature, as in the standard examples in (24), than of a claim of falsity.

- a. What do you mean EVEN Hercules can lift the rock? (cf. (24)Lewis 1979: 339)
  - b. Whaddayamean she opposes the war BUT she's patriotic?<sup>13</sup>

Of course it's possible to get the "What do you mean?" response to an existence violation too, but then it's also possible to get the simple negative claim, as with the King of France in (22a), or in

- A: The baby is crying. (25)
  - B: No, you're wrong, there's no baby around. That's my Siamese

As Emma Borg (p.c.) points out, we do get exchanges like that in (26), in which one interlocutor challenges the definite description used by another on the grounds of uniqueness failure.

- (26)A: I met the vice-chancellor today.
  - B: You didn't meet THE vice-chancellor; we have three VCs at our university.

But I would take B's response here to involve a metalinguistic (and in particular, implicature-canceling) use of the negative operator, much as in (27):

- a. He didn't MANAGE to get a promotion he's married to the (27)boss's daughter.
  - b. She isn't poor BUT honest there's no real contrast between the two.
  - c. I'm not STILL here I'm here AGAIN.

Negation is used not to assert the falsity of an unnegated proposition but rather the infelicity of an utterance due to the non-satisfaction of the appropriateness conditions of the focused item (Horn 1989: Chapter 6).

More generally, as has been recognized for some time, uniqueness unlike existence - is not directly cancelable by an external negation of the form it is not true that...:

a. It is not true that the King of America is a fascist; there is no (28)such entity.

b. #It is not true that the Senator of America is a fascist: there are 100 senators. (Horn 1972: example [1.41])

- a. #It is not true that {the/a} King of France visited the exhibition (29)because there is more than one King of France.
  - b. #It is not true that {the/a} head of school came to see me because we have two heads of school. (Kempson 1975: 110)

Kempson notes that (29a) and (29b) are equally "incoherent" with the and a, given that non-uniqueness is irrelevant to the truth of both indefinites and definites.<sup>14</sup> But note that the same pattern obtains for standard cases of conventional implicatures:

- a. #It is not true that EVEN Hercules can lift the rock; he was the (30)only one.
  - b. #It is not true that she's poor BUT honest. (cf. [24b] above)

We can tentatively draw the following conclusions:

The F is G conventionally implicates the context-relativized uniqueness or maximality of {F}. By her use of a definite description, the speaker conversationally implicates, ceteris paribus, that (she believes that) the hearer is familiar with the referent of F.

The utterance of An F is G conversationally Q-implicates the nonuniqueness (and, indirectly, the novelty or hearer-new status) of {F}, ceteris paribus, given the robust <the, a> scale.

Ludlow and Segal (2004: 436) note the hazards of the linguistic myopia they detect in the differential accounts Russell provides for definite and indefinite determiners:

If we are interested in the logical form of natural language (as opposed to the logical form of English only) we need analyses that "travel well". We cannot be satisfied that our analysis works for our own language if it fails as an analysis of most other languages in the world. Accordingly, we urge that further consideration be paid to the unitary analysis.

Yet, as we have noted, neither their version of the unitary analysis (which posits givenness as a conventional implicature for definites, despite its being "overridden" in superlatives and other contexts) nor Szabó's (which posits the same conventional content for definite and indefinite descriptions) rests on sound empirical footing.

Similarly, Farkas and de Swart (2005) also invoke cross-linguistic evidence to support their Optimality Theoretic account of the relation of definiteness to maximality and familiarity, in which (based in part on evidence from generic definites) they posit the universal soft constraints in (31) and (32):

- (31)FaithMax: Reflect maximality features of the input in the output.
- (32)\*Def/[-Fam]: Avoid non-familiar definites.

The constraint in (31) requires a maximal discourse referent to be associated with a definite NP, while (32) is a markedness constraint penalizing the use of a definite article with non-familiar NPs. This allows for variation in how these constraints are ordered:

But this ordering fails to explain why maximality is harder to override than familiarity in English definite descriptions, or why focusing on the (or a) should invariably turn on maximality (or non-maximality) rather than on familiarity (or novelty).

While I am sympathetic to the goals of a unified account with crosslinguistic relevance, as urged by Ludlow and Segal and by Farkas and de Swart, I would maintain that the approach promoted here, in which uniqueness/maximality corresponds to a Gricean conventional implicature or a Fregean Andeutung, is indeed an analysis that succeeds in traveling well, in particular to languages like Russian that don't mark descriptions for (in)definiteness while still allowing for singular expressions via names and pronouns. (See Trenkic, to appear, for complementary observations.)

It is true that Frege was often quite willing to override the complexities of ordinary linguistic usage for the sake of logical elegance, a tendency that distinguished him from Strawson, despite their shared fondness for the concept of presupposition. Nevertheless, as we have seen, through his

invocation of the Voraussetzung, the Nebengedanke, and the Andeutung, Frege bequeathed us a versatile and subtle toolkit for analyzing the pragmatic factors affecting the meaning of natural language expressions.

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#### Notes

- 1. The corresponding German versions of the passages quoted here can be found at Sigwart 1873: 123 and 1873: 160 respectively.
- 2. Following Strawson, Vendler, and Moravcsik, I argued (Horn 1997) for distinguishing two kinds of universal statements. Empirical universals such as (6a) and (6b), subject-predicate in nature, are about the set denoted by the subject phrase. They range over actual individuals, and cannot be true if their restrictor is empty. Lawlike universals such as (6c) and (6d), conditional in nature, range over possible individuals, and are neutral with respect to whether there are any individuals satisfying their restrictor. In neither case is a universal vacuously true; indeed, in the lawlike cases, as with subjunctive or "counterfactual" conditionals, the emptiness of the subject set would be entirely irrelevant to the truth of the statement as a whole, which is evaluated with reference to possible worlds rather than the actual world and time. See also Cohen 2000 for a related view.
- I have suggested elsewhere (Horn 2002) one possible implementation of a non-presuppositional account for these cases, drawing on Brentano's categorical/thetic distinction (Brentano [1874/1911] 1973; Horn 1997) and Grice's bracketing device for representing scope. In categorical universals, corresponding to the empirical claims of (6a) and (6b), the Nebengedanke is entailed but not asserted (in that the existential premise is outside the scope of the assertion operator); in thetic universals, corresponding to the lawlike

- generalizations of (6c) and (6d), existence in the world of evaluation is neither entailed nor asserted.
- 4. To be sure, this is not an entirely straightforward matter. See Bach (2001) and Saul (2002) for two revisionist views on what is said, formulated within generally neo-Gricean accounts, and Grice offered his own reconsideration of the matter in Strand Five of his retrospective epilogue (Grice 1989: 359-68).
- Frege's observations on ah and unfortunately could be generalized to encompass a wide range of pragmatic markers that index speaker attitude or illocutionary modification, such as the sentence-final particle yo that supplies illocutionary strength to utterances in Japanese (Davis 2006) - or its presumably accidental homonym in AAVE described in McWhorter (2004) or the evidential markers in a variety of languages including Turkish, whose suffixes -mIs and -Di signal that the speaker's evidence for the propositional content is indirect or direct, respectively.
- The cancelability diagnostic is not as straightforward as it may appear. Potts (2005: 83) argues that Karttunen and Peters (1979) are wrong to take the use of the name Bill as conventionally implicating that the referent is male, given the cancelability of this suggestion (cf. for example Johnny Cash's "A Boy Named Sue"). Fair enough. But Potts concludes that "the proper classification of maleness is as a conversational implicature." However, he offers no derivation of such an implicature from the conversational maxims, nor could he. Defeasible culture-bound generalizations like People named 'Bill' are male are not conversational implicatures; cancelability is a necessary but not sufficient diagnostic for conversational implicature.
- In other treatments, the existential implicature has been argued to be nonconventional (derived conversationally rather than stipulated) and the "scalar" implicature has been taken to involve relative rather than absolute comparison and noteworthiness rather than unlikelihood (cf. Horn 1992; Schwenter 2002; Rullmann 2006 inter alia).
- Levinson (1983: 128-29) suggests, but does not pursue in detail, a conventional implicature-based analysis of T/V pronoun choice. A speaker's move from the T to the V form, or vice versa, will often generate conversational implicatures relating to signals of increased intimacy, alienation, etc.; it is the static values of the pronouns of power and solidarity (Brown and Gilman 1960; Taavitsainen and Jucker [eds.] 2003) that lend themselves to a conventional implicature or Andeutung-based treatment. See also Keenan (1971) for an earlier related treatment of T/V pronouns in terms of pragmatic presuppositions and Kaplan (2004) for a different view.
- Another problem for the generalization is the fact that Potts's expressives are all adjectival modifiers or appositives ("that damn guy", "Harry, that asshole") rather than nominal epithets per se ("I wouldn't hire that

reprobate", "Why did you vote for that asshole?"). In the latter case, a lexical item clearly does "contribute both an at-issue and a CI meaning" - no problem, of course, for the echt Fregean/Gricean view of Andeutung/conventional implicature. Williamson (to appear, fn. 16) makes a similar point.

- 10. As discussed in §1, Strawson (1950) regards existence and uniqueness as not entailed or asserted in sentences like The King of France is wise but presupposed; the non-satisfaction of these conditions yields not falsity but a truth-value gap. Strawson also notes the difficulty posed by "improper" descriptions as in The table is covered with books, in which uniqueness simpliciter is neither entailed nor presupposed. See Kadmon (1990), Roberts (2003) and the papers in Neale (2005) for other approaches to improper descriptions and to the roles of familiarity and uniqueness in definite descriptions. In particular, Roberts argues persuasively that uniqueness must be defined in informational terms and not, à la Russell, purely semantically. For a related treatment of the definiteness presupposition that invokes individuation within the discourse model, see Birner and Ward 1994, 1998.
- 11. For Roberts (2003), weak familiarity (along with informational uniqueness) is a necessary condition on definites. In a case like (14), in which the referent is neither hearer-old nor accessible to both speaker and hearer in the assumed context, accommodation must be assumed (cf. Roberts 2003: 302), the details of which are not obviously straightforward.
- 12. While Szabó (2005) offers a modified view of his earlier position on the role of familiarity and uniqueness, the central elements of the story are preserved: "The functions of indefinite and definite articles are complementary: the former is used to build phrases for introducing novel things into the discourse, the latter is used to build phrases for talking about things already familiar (2005: 1218). As the evidence reviewed here indicates, this generalization cannot be criterial for predicting the distribution of a and the.
- 13. An attested example:
  - "Her name is Caroline. She's an Italian girl but she's pretty."
  - "What do you mean, but she's pretty, Ma?" Frank said. "Why not 'and she's pretty'?"

(Stephen McCauley, The Object of My Affection, p. 209)

14. As noted above, I maintain contra Kempson that (non-)uniqueness is relevant to the conventional import of definites, although I agree with her, contra Russell, Hawkins, et al., that it is not relevant to their truth conditions.

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