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Economy and Redundancy in a Dualistic Model of Natural Language

1. FAMILIARITY BREEDS CNTNT: An Overview

In this study, I will explore the implications of a pragmatic approach to the economy of linguistic information.¹ The neo-Gricean model of non-logical inference I work with here is adapted from the exposition in Horn (1984, 1989), itself pre-figured in Atlas & Levinson (1981) and further developed (along somewhat different lines) in Levinson (1987a,b, 1991). The essential, and by no means novel, idea in (over)simplified form is that of a context-dependent dialectic, as recognized by Hermann Paul a century ago:

The more economical or more abundant use of linguistic means of expressing a thought is determined by the need... Everywhere we find modes of expression forced into existence which contain only just so much as is requisite to their being understood. The amount of linguistic material employed varies in each case with the situation, with the previous conversation, with the relative approximation of the speakers to a common state of mind. (Paul 1890: 251)

This opposition reappears in the form of a systematic interaction between two antinomic forces identified by George Kingsley Zipf (1949: 20ff.). The Force of Unification, or Speaker's Economy, a correlate of Zipf's Principle of Least Effort, a drive toward simplification or minimization which, operating unchecked, would result in total homonymy or lexical versatility, yielding 'a vocabulary of one word [presumably *uhhh*] which will refer to all the *m* distinct meanings' the speaker might want to express. The antithetical Force of Diversification, or Auditor's Economy, would indefinitely expand the inventory to guarantee 'a vocabu-

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lary of m different words with one distinct meaning for each word'. More generally, the Speaker's Economy places an upper bound on the form of the message, while the Hearer's Economy places a lower bound on its informational content.

The key principle governing the interaction of the antithetical economies is Zipf's law of abbreviation: The relative frequency of a word is inversely related to its length; the more frequent its tokens, the shorter its form. What is more, we can establish the direction of causality:

High frequency is the cause of small magnitude... A longer word may be truncated if it enjoys a high relative frequency [either] throughout the entire speech community [or] if its use is frequent within any special group. (Zipf 1935: 31-32)

Thus, *moving pictures* are abbreviated throughout the whole cinematically oriented English-speaking world into *movies*, while *gas* may represent a truncation of, variously, natural gas, gasoline, nitrous oxide, or flatulence, in the context of heating contractors, petrol stations, dentists, and beans, respectively. *PC* may respond to *personal computer*, *politically correct*, *Providence College*, or *personal communication*, *CD* to *compact disk*, *certificate of deposit*, or (in a discussion of the Prague Linguistic Circle) *communicative dynamism*. And *OSU* will be taken as an academic acronym for whichever of the three state universities of Ohio, Oklahoma, or Oregon happens to be most salient in a particular discourse context.

Zipf's two mutually constraining mirror-image forces are periodically invoked in the literature of diachrony and emerge also to motivate a minimax of linguistic expression.

In order to understand how and why a language changes, the linguist must keep in mind two ever-present and antinomic factors: first, the requirements of communication, the need for the speaker to convey his message, and second, the principle of least effort, which makes him restrict his output of energy, both mental and physical, to the minimum compatible with achieving his ends. (Martinet 1962: 139)

The speaker always tries to optimally minimize the surface complexity of his utterances while maximizing the amount of information he effectively communicates to the listener.

(the minimax principle of Carroll & Tanenhaus 1975: 51)

The evolution of language can be seen as resulting from the dynamic tension between these two functional principles. In the phonological sphere, the speaker-oriented least effort principle tends toward maximization of sensorimotor discriminability and the minimization of movement from rest, while the hearer-oriented counterforce tends toward maximization of salience and of perceptual discriminability (Lindblom, MacNeilage & Studdert-Kennedy 1984, to appear). The goal of the linguistic sound pattern can be seen as the achievement of the greatest perceptual benefit at the least articulatory cost, in that a motor economy 'occurs only insofar as communicative listener-oriented goals permit' (Lindblom 1983: 232); CV syllables can be seen as motor-perceptual compromises. The Zipfian dimension of familiarity enters the picture as well: vowel reduction and palatalization are characteristic of familiar or frequent items, while unfamiliar or unpredictable words get extra stress or pitch. This is seen in the minimal pairs pointed out by Fidelholtz (1975: 205-6), where the degree of stress reduction on a lax vowel in an initial strong pretonic syllable correlates with the frequency or predictability (global or local) of the item:

- | | | |
|-----|-------------|--------------------------------|
| [1] | ǎstronomy | gàstronomy |
| | m ĭ stake | mĭstook |
| | ǎbstain | àbstention |
| | m ɔ̃ squito | M ɔ̃ skegon [city in Michigan] |

Similarly, Fidelholtz observes, *trombone* and *Australia* are pronounced with secondary stress on the boldface syllable unless the pronouncer plays one or is from there, respectively, in which case the vowel is fully reduced.

In the lexico-semantic sphere, the speaker's force can be identified with the Law of Differentiation (Paul 1890, Bréal 1900), the principle of Pre-emption by Synonymy (Clark & Clark 1979), or the Avoid Synonymy principle (Kiparsky 1983, Clark 1987). The essential idea here is that languages tend not to allow a given semantic slot to be filled by two distinct lexical expressions; more precisely, a relatively lexicalized item tends to pre-empt the filling of its slot by a less lexicalized form that would

have precisely the same meaning.² Along the same lines, the inverse correlation of familiarity and linguistic form — the principle I dub Familiarity Breeds CNTNT — is reflected by minimal pairs in which the locally more familiar or frequent member retains or comes to acquire reduced expression. The example in (i) is taken from Zipf (1935: 34), that in (ii) from work on marking reversals in by Witkowski & Brown (1983: 571), and that in (iii) from various electronic mail messages sent to me by Ellen Prince of the University of Pennsylvania during the construction of the house she now occupies.

[2] MARKING REVERSALS

(I) POTATOES AND THE MASON-DIXON LINE:

	‘Irish potatoes’	‘sweet potatoes’
northern U.S.	<i>potatoes</i> → <i>spuds</i>	<i>sweet potatoes</i>
southern U.S.	<i>Irish potatoes</i>	<i>potatoes</i> → <i>taters</i>

(II) DEER AND SHEEP IN TENEJAPA TZELTAL:³

	‘deer’	‘sheep’
phase 1 (pre-conquest)	<i>čih</i>	∅
phase 2 (early post-conquest)	<i>čih</i>	<i>tunim čih</i> (‘cotton deer’)
phase 3 (contemporary)	<i>teʔnikil čih</i> (‘wild sheep’)	<i>čih</i>

(III) RESIDENTIAL NOMENCLATURE IN PHILADELPHIA:

	‘1126 Lombard’	‘1911 Delancey Pl.’
phase 1 (pre-construction)	<i>the house</i>	∅
phase 2 (early construction)	<i>the house</i>	<i>the new house</i>
phase 3 (contemporary)	<i>the old house</i>	<i>the house</i>

It must be acknowledged that the notion of least effort is not as straightforward as sometimes claimed (e.g. in Horn 1984). Martinet’s distinction between mental and physical energy noted above is spelled out in more detail through his dichotomy (1960:

² The hearer’s economy is realized as the corresponding principle which we might label Avoid Homonymy; cf. Bloomfield (1933), Zipf (1935), Manner (1936), and especially Williams (1944) for the appropriate formulation of the notion of homonymic clash and illustrations of its diachronic effect.

³ In lowland Tzeltal, where sheep remain uncommon, the cognates of Phase 2 expressions are still retained.

§6.6) between PARADIGMATIC economy (*économie mémorielle*, mental inertia) and SYNTAGMATIC economy (*économie discursive*, articulatory inertia):

What one may call the economy of language is this permanent search for equilibrium between the contradictory needs which it must satisfy: communicative needs on the one hand and articulatory and mental inertia on the other, the two latter in permanent conflict.

(Martinet 1960: 169)

Thus, pidgins and early-stage creoles emphasize paradigmatic economy at the cost of syntagmatic overabundance: few morphemes, longer sentences (Haiman 1985: 167). The process of creolization can be seen as the pursuit of an equilibrium of economy guided by Zipf's law of abbreviation and our correlated principle of Familiarity Breeds CNTNT.

The opposite extreme is best illustrated by Borges's legendary nineteenth-century Uruguayan Ireneo Funes. In the face of Locke's observation that it is both unnecessary and impossible for every particular object to have a distinct name (Locke 1690: Book III, Chapter III), Funes — after being thrown by a blue-tinted horse — reawakens into a consciousness in which particulars are all, *l'économie mémorielle* nothing. He invents an idiom in which every object, every number has its own unanalyzable proper name: 7013 is *Máximo Perez*, 7014 *The Train*.

It was not only difficult for him to understand that the generic term *dog* embraced so many unlike specimens of differing sizes and different forms; he was disturbed by the fact that a dog at 3:14 (seen in profile) should have the same name as the dog at 3:15 (seen from the front).

(Borges 1963: 114)

The narrator/author's point is, of course, precisely Locke's: 'I suspect... that he was not very capable of thought. To think is to forget a difference.'

Bearing in mind the two-fold nature of linguistic economy, let us return to the dialectic between the two countervailing Zipfian forces and to its application to the computation of non-logical inference. Grice (1975, 1989) shows how participants in a conversational exchange can compute what was meant (by a speaker's utterance at a given point in the interaction) from what was said. The governing dictum is the Cooperative Principle

(Grice 1975: 45): 'Make your conversational contribution such as is required, at the stage at which it occurs.' This rule in turn is analyzed into four specific subprinciples, the general and presumably universal maxims of conversation on which all rational interchange is putatively grounded:

[3] THE MAXIMS OF CONVERSATION (Grice 1975: 45-6):

- QUALITY: Try to make your contribution one that is true.
1. Do not say what you believe to be false.
 2. Do not say that for which you lack evidence.
- QUANTITY:
1. Make your contribution as informative as is required (for the current purposes of the exchange).
 2. Do not make your contribution more informative than is required.
- RELATION: Be relevant.
- MANNER: Be perspicuous.
1. Avoid obscurity of expression.
 2. Avoid ambiguity.
 3. Be brief. (Avoid unnecessary [sic] prolixity.)
 4. Be orderly.

There is, a priori, no privileged status to this fourfold classification (except perhaps for its echo of the similarly labeled Kantian categories), nor to the effective total of nine distinct subprinciples, and much of neo- and post-Gricean pragmatics has been devoted to a variety of reductionist efforts. In the first place, the maxims do not appear to be created equal. Grice and others have maintained (though see Sperber & Wilson 1986 for a dissenting view) that Quality is primary and essentially unreducible:

It is obvious that the observance of some of these maxims is a matter of less urgency than in the observance of others; a man who has expressed himself with undue prolixity would, in general, be open to milder comment than would a man who has said something he believes to be false. Indeed, it might be felt that the importance of at least the first maxim of Quality is such that it should not be included in a scheme of the kind I am constructing; other maxims come into operation only on the assumption that this maxim of Quality is satisfied. (Grice 1975: 46)

The maxims do not seem to be coordinate. The maxim of Quality, enjoining the provision of contributions which are genuine rather than spurious (truthful rather than mendacious), does not seem to be just one among a number of recipes for producing contributions; it seems

rather to spell out the difference between something's being, and (strictly speaking) failing to be, any kind of contribution at all. False information is not an inferior kind of information; it just is not information. (Grice 1989: 371)

Setting Quality aside, we can attempt to boil the remaining maxims and submaxims down to two fundamental principles responding to the two basic forces identified by Zipf et al. I use **Q** to evoke Quantity (i.e. Quantity₁) and **R** Relation with no commitment to an exact mapping between my principles and Grice's maxims.

[4] MINDING OUR **Q**'S AND **R**'S:

THE **Q** PRINCIPLE
(Hearer-oriented)

Make your contribution SUFFICIENT.
Say as much as you can
(given both quality and **R**).

THE **R** PRINCIPLE
(Speaker-oriented)

Make your contribution NECESSARY.
Say no more than you must
(given **Q**).

The **Q** Principle is a LOWER-bounding hearer-based guarantee of the sufficiency of informative content. It collects the first Quantity maxim and the first two submaxims of Manner, and it is systematically exploited to generate UPPER-bounding implicata.⁴ The **R** Principle is an UPPER-bounding correlate of the Law of Least Effort dictating minimization of form. It collects the Relation maxim, the second Quantity maxim, and the last two submaxims of Manner, and it is exploited to induce strengthening or LOWER-bounding implicata.

The functional tension between these principles motivates and governs a wide range of linguistic phenomena, synchronic and diachronic, lexical and syntactic, from implicature and politeness strategies to the interpretation of pronouns and gaps, from lexical and semantic change to the pragmatic strengthening of apparent contradictory negation, from the interpretation of case-marking in so-called split ergative languages to the analysis

⁴ The locus classicus is scalar implicature, in which S's use of a weaker expression like *Some men are chauvinists* implicates that (for all she knows) no stronger expression unilaterally entailing it – e.g. *All men are chauvinists* – holds; see Horn (1989: Ch. 4), Horn (1990) for discussion and history.

of recorded conversational interaction (cf. Atlas & Levinson 1981; Horn 1984, 1989; Brown & Levinson 1987; Levinson 1987a, 1987b, 1991).

Crucially, our two antinomic forces are not in simple opposition, but interact (in the classical Hegelian manner) in a dialectic process in which each inevitably appeals to and constrains the other.⁵ Notice that Grice is forced to build in the **R** Principle in defining the primary **Q**-based maxim ('Make your contribution as informative as is required' [emphasis added]), while Quantity₁ is similarly built into the definition of Quantity₂. Further, the second Quantity maxim essentially incorporates Relation: what would make a contribution more informative than is required, except the inclusion of material not strictly relevant to the stage of the exchange at which it occurred?⁶

The opposition of the two Zipfo-Gricean forces may result not simply in maxim clash, but in a resolution of the conflict through what I have called the DIVISION OF PRAGMATIC LABOR. This principle is inspired by the Elsewhere Condition in morphology and by the program for lexical pragmatics suggested in McCawley 1978: given two co-extensive expressions, the more specialized form — briefer and/or more lexicalized — will tend to become **R**-associated with a particular unmarked, stereotypical meaning, use, or situation, while the use of the periphrastic or less lexicalized expression, typically (but not always) linguistically more complex or prolix, will tend to be **Q**-restricted to those

⁵ The interplay of perspicuity (clarity) and brevity was a key issue for classical rhetoricians, as illustrated by a few apposite citations:

If it is prolix, it will not be clear, nor if it is too brief. It is plain that the middle way is appropriate..., saying just enough to make the facts plain. (Aristotle, *Rhetoric*, 3.12-3.16)

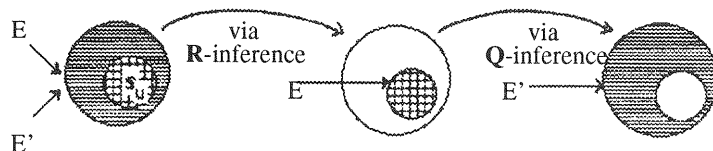
Personally, when I use the term brevity [*brevitas*], I mean not saying less, but not saying more than the occasion demands. (Quintilian, *Institutio Oratio*, IV.ii.41-43)

Brevis esse laboro; obscurus fio. 'I strive to be brief; I become obscure.' (Horace, *Ars Poetica*, l. 25)

⁶ The issues involved in the definition and interaction of the maxims are of course far more complex than I have room to delineate. For some related discussion, see Martinich (1980), Sperber & Wilson (1986), Levinson (1987b), Neale (1992).

situations outside the stereotype, for which the unmarked expression could not have been used appropriately.⁷ This is illustrated in the diagram in (5) and paradigm in (6).

[5]



- [6] a. Black Bart caused the sheriff to die.
Black Bart killed the sheriff.
- b. I'd like to see something in pale red.
I'd like to see something in pink.
- c. My brother went to the church (the jail, the school).
My brother went to church (jail, school).
- d. He wants him to win.
He wants PRO to win.
- e. I am going to marry you.
I will marry you.
- f. I need a new drill. /cooker.
I need a new drill. /cook.

Thus the speaker in opting for the periphrastic causative in (6a) suggests that Bart acted indirectly (cf. McCawley 1978: 250; cf. Horn 1978, Hofmann 1982), *pale red* in (6b) suggests a tint in that portion of the color space not pre-empted by pink (House-

⁷ As Levinson has stressed, there is a real question about whether the Q-based restriction operative in the Division of Labor dialectic is really the same mechanism as that involved in the more straightforward scalar cases discussed above. In particular, the notion of minimalism involved in the inference from some to not all is defined in terms of an informational measure rather than complexity of production or processing; because of the apparent role of Manner in the latter case, Levinson (1987a,b) refers to the Division of Labor inferencing as Q/M, with Q reserved for pure scalar cases. As he also concedes, however, the two patterns are closely related, since both are negatively defined and linguistically motivated: H infers from S's failure to use a more informative and/or briefer form that S was not in a position to do so. R-based (or, for Levinson, I-based) inference is not negative in character and tends to be socially rather than linguistically motivated. For the current study, I have retained the dualistic approach utilizing different interactions of the two basic principles.

holder 1971: 75), the longer versions of (6c) imply literal motion to the specified location without the socially stereotypic connection **R**-associated with the corresponding institution on the anarthrous version, the selection of a full pronoun in (6d) over a null PRO signals the absence of the coreferential reading associated with the reduced syntax (Chomsky 1981 on AVOID PRONOUN; cf. Bouchard 1983, Reinhart 1983, Levinson 1987b, 1991, Farkas 1992, et al.), the periphrastic form in (6e) blocks the indirect speech act function of promising that the modal is conventionally used to convey (Searle 1975), while in (6f) the agentive *-er* nominals are excluded on the meanings pre-empted by the more lexicalized zero-derived deverbals: a driller can only be an agent, given that drills are instruments, but a cooker can only be an instrument, given that cooks are agents (Kiparsky 1983 on AVOID SYNONYMY; cf. Aronoff 1976, Clark & Clark 1979, Hofmann 1982, and Clark 1987 on BLOCKING, CONTRAST, and PRE-EMPTION BY SYNONYMY).⁸

So too, the referent of *my father's wife* is taken to be distinct from that of *my mother*, unless the extra information is relevant in the context (*You have to remember: she is my father's wife*). When one of Miss Manners' supplicants refers to 'the mother of my grandchildren' (Martin 1983: 566), we know she is not designating her daughter or daughter-in-law, but rather — as it turns out — her ex-daughter-in-law. In the same vein, an August 31, 1991 New York Times article about Bob Beamon seeks to illustrate its claim that the world-record-setting long-jumper was

⁸ Again, important matters are being finessed here, particularly as concerns the relevant sense of (least) effort. The activation of the Division of Labor (and thus the correlated principles of blocking and semantic restriction) involves a complex interaction of markedness, frequency, productivity, register, and psychological complexity. Thus, lexicalized causative verbs are unmarked in English while lexicalized causative adjectives are not, incorporated negation remains relatively complex, and so on. I would argue (but cannot do so here) for the position that even when the blocker seems to involve more effort than the blockee — e.g. when *yesterday* blocks **last day* (cf. *last night*) — the blocked expression must always involve a lesser degree of lexicalization or opacity (in Zipfian terms, less specialization) than the blocking element. See Horn (1978 and 1989: Appendix 2), Hofmann (1984), and Poser (1992) for related discussion.

‘targeted for a life of desperation’ by citing the difficult circumstances of his beginning: ‘His mother’s husband was in prison when he was conceived.’ The conception must not have occurred during a furlough or conjugal visit, or the incarcerated figure would have been identified as his father and not as his mother’s husband.

On the other hand, when another Times piece (NYT, September 1, 1989) reports on a Foreign Service training course for spouses of diplomats that ‘there were four other male spouses in the group’, there can be no REFERENTIAL distinction between a male spouse and a husband (and, for that matter, a married man). Rather, the prolix form is prompted by the focus in context on diplomatic spouses, mostly of the standard female variety. Someone may be looking for a male spouse, for a husband, or for a married man, but the motivation for each quest will be predicted to differ accordingly.

The key point is that when the speaker opts for a more complex or less fully lexicalized expression over a simpler alternative, there is always (given the Division of Labor) a sufficient reason, but it is not always the same reason. As a jumping off point for the remainder of this disquisition, I take as my epigraph Martinet’s observation (1962: 140) that ‘the importance of redundancy does not, of course, invalidate the concept of language economy, but reminds us of its complexity.’

2. Motivated Redundancy, Type (i): Informational (Q-Based) Override of Least Effort

The first of two varieties of acceptable redundancy we shall touch on involves instances in which **R**-based least effort considerations are overridden by the **Q** Principle. A *locus classicus* here is that of redundant affixation. Examples (some courtesy of Mencken 1948, Covington 1981, Thomas 1983, and Janda & Sandoval 1984) include category markers, such as the affixation of adverb-forming *-ly* onto monomorphemic adverbs (*thusly* or even *fastly*), gender suffixes attached to inherently sex-marked nouns (Ger. *Hindin* [lit., ‘female doe’], *Prinzessin* [‘female princess’]),

and various English aspectual and causative verbal affixes, including those figuring in *inflammable* and *irradiate*, *reduplicate* and *reiterate*, *engage* and *ensnare*, *quieten* and *loosen*. Parallel instances from the realm of inflectional morphology include the doubly inflected plural and past tense forms in the speech of children and (un)certain adults (*feets*, *mens*, *criteria*s; *child-(e)r-en*, *breth-(e)r-en*; *came*d, *ated*). As typified by the German double feminines, all these examples typically involve the failure of some marker or feature, one that (for a given speaker) is opaque with respect to its grammatical function, to block the affixation (by that speaker) of a more transparent, more regular marker which encodes that same function.

While double affixation may be redundant in these cases, it does not lead directly to any confusion in processing: two plurals do not a singular make, nor two feminines a masculine. But it is standardly assumed — and often attested — that two negatives affirm, so morphological redundancy would seem to be rather more perverse in the realm of negation, where a competing interpretation ought in principle to be available for the doubly negated output. Consider, in this light, the *unXless* adjectives pervading 16th and 17th century texts, as documented by the OED (**un**¹, 5a):

(7)	unboundless	unguittless	unnumberless	unshameless
	undauntless	unhelpless	unquestionless	unshapeless
	uneffectless	unmatchless	unremorseless	untimeless
	unfathomless	unmerciless	unrestless	unwitless

The prefixal negation in these forms was in fact understood as pleonastic, reinforcing rather than cancelling the negation in the suffix. The meaning of *unmatchless*, for example, was ‘unmatched’ or ‘matchless’, rather than ‘not matchless’; *unmerciless* likewise corresponded not to *merciful* but to *merciless* or *unmerciful*. A semantically real double negation is ruled out here by the same considerations that prevent the formation of **unsad* and **unhostile* alongside *unhappy*, *unfriendly*, namely the well-known ban against affixing *un-* to evaluatively and/or formally negative adjectival bases, as described by Jespersen (1917), Zimmer (1964), and Horn (1989: §5.1).

By the same token, semantically redundant *un-* and *de-* verbs (see Horn 1988) would seem to contain a unique a priori potential for havoc. And indeed, just as the pleonastic adjectives in (7), or their modern counterparts — *irregardless*, Ger. *unzweifellos* [lit. ‘undoubtless’] — have aroused the ire of generations of rabid prescriptivists, the redundantly prefixed verb is equally suspect, to say the least, for its apparent illogic:

The verb *to unloose* should analogically signify *to tie*, in like manner as *to untie* signifies *to loose*. To what purpose is it, then, to retain a term, without any necessity, in a signification the reverse of that to which its etymology manifestly suggests?... All considerations of analogy, propriety, perspicuity, unite in persuading us to repudiate this preposterous application altogether. (Campbell 1801: 335-36)

Indeed, why is it that if *untighten* is the opposite of *tighten*, *unloose(n)* is not the opposite of, but a synonym for, *loose(n)*? How can we explain that *unthawing* something causes it to become *thawed*, precisely the way *thawing* or *unfreezing* it does? Why is *unthaw* never interpreted as the reversative of *thaw*?

What prevents this potential from realization is the target condition on *un-* and *de-* affixation. The basic insight is that, as Covington (1981: 34) puts it, ‘The root verb to which *un-* attaches normally signifies putting something into a more marked or specialized state, and the derived *un-*verb signifies returning it to normal.’ When the prefix attaches to a positive, goal-oriented accomplishment verb, the state-change depicted by the *un-*verb is one which in effect helps entropy along, rather than creating or restoring order. But when *un-* attaches to a verb stem which itself denotes an entropy-producing, inherently negative or source-oriented accomplishment, the resultant *un-*verb can only be understood with pleonastic reversal, as equivalent to its base, denoting an action of removal, liberation, or (de)privation.

Thus, while Boons (1984) correctly observes that the inherently privative or source-oriented meaning of French *priver* precludes a reversative counterpart **dépriver* as its ANTONYM, precisely this non-occurring verb is attested in Late Latin (*deprivare*) and Old French, as well as of course in English. But in each case, as we expect, the prefix of entropic *deprive* is semantically redundant with respect to its base. Other *dé-*verbs, includ-

ing *dénuer* ‘deprive’ and *dénuder* ‘denude, strip, lay bare’, must similarly be taken as redundantly, rather than reversatively, privative, as must earlier Fr. *desvuidier* ‘empty’, borrowed into (Middle) English as *devoiden* and eventually *devoid*. Here too, the semantics of the base verb or adjective determines the effect of the verbal prefix. In thematic terms, the *un*-verb is always SOURCE-oriented, whether (as is normally the case) the base itself bears a goal reading which the *un*-version reverses, or whether the base itself bears a source reading, which the *un*-verb duplicates or reinforces. The rivals of verbal *un*- are interpreted as similarly redundant when they attach to an inherently negative or privative stem. Jespersen (1917: 146) cites *disannul* (= *annul*), to which can be added *dissever* (= *sever*) and the privative denominals *debone*, *dehusk*, *deworm* discussed below.

If we can now reasonably predict when a redundant *un*- or *de*- verb will NOT exist, we still don’t know why any ever SHOULD. Why isn’t *unthaw* blocked by *thaw*, *unshell* by [_V*shell*], *debone* by [_V*bone*], *dissever* by *sever*, and so on? We have seen that a derivational formation will tend to be pre-empted by a simplex or more lexicalized item already occupying the same semantic slot, and that when two items do come to share a given slot, one will tend to shift in meaning or cease to exist. In fact, the existence of the redundant *un*-verb would appear to fly in the face of both paradigmatic and syntagmatic economy, simultaneously extending the lexicon and increasing sentence length when used. But what offsets this is the countervailing hearer-motivated tendency to minimize the existence of pernicious homonymy and ambiguity.

In fact, potential redundant *un*- and *de*-verbs ordinarily WILL be blocked by their source-oriented bases, even when the same base may elsewhere allow an alternative, goal-oriented interpretation. The nature of the object or patient will generally determine whether the speaker intends a goal reading, as in (8), or a source reading, as in (8’) (examples from Clark & Clark 1979: 793).

- | | | | |
|-----|----------------------|------|----------------------|
| | GOAL | | SOURCE |
| (8) | a. seed the lawn | (8') | a. seed the grapes |
| | b. cork the bottle | | b. cork the oaks |
| | c. girdle a waist | | c. girdle a tree |
| | d. dust the crops | | d. dust the shelf |
| | e. top the cake | | e. top the tree |
| | f. shell the roadbed | | f. shell the peanuts |
| | g. milk the tea | | g. milk the cow |

Thus, to string beads is to put them on a string, but to string beans is to take the string off them (Hook 1983). If I can assume that you will use your knowledge of beans and strings to infer what stringing beans involves, and if privative *string* is relatively salient in my lexicon to denote this action, the potential verbs *unstring* or *destring* will indeed tend to be blocked for me. But when goal- and source-oriented readings are both plausible for a given base verb in combination with a given patient, the *un-* or *de-* verb will serve usefully and unambiguously to signal the source or entropic interpretation. In other cases, the speaker may be unsure whether the source reading is available for the simple base verb, or even (as with *ravell/unravel*) whether that base exists. What results is the nonce — or lexically institutionalized — creation of an *un-* or *de-* verb semantically redundant with respect to a previously existing entropic base: Let's see, does *boning* a chicken involve putting bones in or taking them out? Can you *pit* a cherry? Better be on the safe side: *debone* that chicken, *unpit* (or *depit*) that cherry.

This lexical uncertainty is responsible for the most productive class of redundant denominals, the verbs of removal formed with *de-* (cf. Gove 1966, Ross 1976, Andrews 1985). The theme or patient here may represent part of the outer or inner structure of the source (*debark*, *debone*, *degut*, *dehull*, *dehusk*, *derind*, *descale*, *destem*) or simply an unwanted guest on the relevant host (*deburrr*, *deflea*, *delouse*, *deworm*). In each class, the *de-*verb and its base both refer to a process whereby the patient is returned to a more basic or privative state.

Whether or not a denominal source verb is available through zero-derivation, the *un-* or *de-* derivative unambiguously conveys the entropic meaning. *Debarking* a dog and a tree will predictably remove from each its respective bark; as it happens, you can also

bark a tree, with the same entropic or source-oriented interpretation, but not a dog. And even though we normally know that dust takes crops as a goal argument and shelves as a source, prefixal assistance is close at hand if confusion is likely to arise. I yield the floor here to Miss Amelia Bedelia (Parish 1963), literalist extraordinaire of literary housekeepers, she who dresses the chicken in overalls, trims the fat with lace and bits of ribbon, and ices the fish with chocolate frosting. Reading an instruction to dust the furniture, she exclaims, 'Did you ever hear tell of such a silly thing? At my house we undust the furniture. But each to his own way.' And she happily proceeds with her dusting, with the help of some fragrant powder she discovers in the bathroom.

Thus, morphological negation in a prefix will reinforce, rather than cancel, an inherent or affixal negation in the base whenever an effective negative or privative interpretation is blocked by independent semantic principles.

For another source of informationally motivated partial redundancy we turn to the modifier Dray (1987) identifies as the DOUBLE. The construction in question is exemplified by the replies in (9).

(9) No, what I wanted was a {DOG dog/SALAD salad/DRINK drink}.

As a rough approximation, we can say that the reduplicated modifier singles out a member or subset of the extension of the noun that represents a true, real, default, or prototype instance: a *DOG dog* may be a canine (excluding hot dogs or unattractive people) or it may be a German shepherd or collie (excluding Chihuahuas and toy poodles), a *SALAD salad* is based on lettuce, not tuna, potatoes or squid, while a *DRINK drink* is the real thing, in the alcohol (not Pepsi) sense of the term: not a default beverage but a socially salient one, with the Double functioning as a quasi-euphemism. Perhaps a sampling of attested cases will be helpful in displaying the range of the construction. The first of the citations in (10) is excerpted from the Pedro Almodóvar film, *Women on the Verge of a Nervous Breakdown*, and occurs in the scene in which the protagonist, seeking to rent out her Madrid penthouse apartment (complete with chicken coop and tropical

garden), opens the door to the first prospective tenants, who just happen to be her lover's son and his somewhat inhibited fiancée, who registers the complaint in (10a). The remaining examples are more self-explanatory; the boldface is mine.

- (10) a. No es una **CASA casa**. 'This isn't a real [sic] house.'
 b. She was over the legal limits of sobriety, but still functioning; she wasn't '**DRUNK drunk**'. (T. Halleran, *A Cool Clear Death*)
 c. In 1920, he explains, France had more than 500,000 cafes. "Now, we've fewer than 175,000 throughout the country, which includes cafe-restaurants and cafe-hotels. Of pure **CAFE-cafes**, fewer than 72,000 exist."
 (Robert Henry, fourth-generation Parisian café owner and industry lobbyist, in the *San Francisco Chronicle*, July 21, 1991)
 d. [scene: John Searle addressing 300 or so assorted linguists and other academics at LSA Institute Forum Lecture at Stanford, summer 1987]
 — Is there a doctor in the house? [pause, then 100 or so hands shoot up, accompanied by chuckles, etc.]
 — No, I need a **DOCTOR doctor**.
 e. We have muffins, and we have **DESSERT desserts**.
 (waitress, Atticus Bookstore Cafe, New Haven)

Why should the Double exist, given the apparent redundancy of what it communicates? We can begin, following Dray, by noting that a Double of the form XX is more effortful (to produce, and presumably to process) than the simple nominal X. On the other hand, the Double XX is less informative, and arguably less effortful (for speaker and/or hearer) than a phrase or compound YX, $Y \neq X$. By the Division of Pragmatic Labor, XX must be both necessary (vs. X), given the **R** Principle, and sufficient (vs. YX), given the **Q** Principle, to narrow the domain appropriately. (One factor here, Dray observes, is that it may be harder to characterize the narrowed domain, by spelling out the default overtly than by invoking it via the Double.) Often repair is needed within the conversational frame, when the assumption of sufficient information proves unwarranted. Thus consider the following exchange between two female undergraduates at Yale:

- (11) — Oh, you mean he's **CUTE cute**. [= 'sweet, adorable']
 < --- ^^
 — Well, yeah, but he's also [pause] **CUTE**.

Note the function of the significant pause, which I have notated by the dotted circumflex diacritic representing raised eyebrows.

(As the broken arrow suggests, this paralinguistic signal may become, in effect, a floating autosegment, drifting leftward to precede rather than accompany the production of the item on which it focuses.) The eyebrow-raising betokens a particular **R**-strengthened euphemistic reading which disambiguates the domain-narrowing intended by the use of the preceding Double. Thus, we obtain the contrast in (12):

- (12) a. Is that your FRIEND friend, or a [pause] FRIEND?
 b. Is that a DRINK drink, or just something to drink?

The role of context in disambiguation is equally important. Dray exemplifies this by citing the minimal pair in (13):

- (13) a. Oh, we're just LIVING together living together.
 b. Oh, we're not LIVING together living together.

The couple in (13a) are purportedly just roommates, not romantically or sexually involved, while the negated double in (13b) must be interpreted (as the diacritic suggests) in the opposite manner, with the result that the affirmative and negative sentences convey precisely the same proposition. Along the same lines, the double in (12a) can reverse its meaning when the context is adjusted: *Is that your FRIEND friend, or just a friend?* Dray (1987) stresses the context-sensitive nature of Double interpretation by citing (14), which — despite its orthographic suggestion of pointlessness — can be recognized as a legitimate (if still suggestive) query when we learn that it was uttered by one partner to another after the latter had removed her nightgown and complained of feeling hot.⁹

⁹ A few related citations are worth mentioning here; (i) is from an episode of the television series *Thirtysomething*, and (ii) and (iii) were attested by Yale undergraduates.

- (i) Are you a FRIEND friend or sort of a FRIEND friend?
 (ii) I would sleep [brief pause] with him, but I wouldn't SLEËP with him sleep with him.
 (iii) A: Did you hook up?
 B: Yeah, we hooked up.

- (14) Do you mean HOT hot, or $\overset{\wedge\wedge}{\text{HOT}}$ hot?

A cousin of the Double is the RETRONYM, a prenominal modifier whose erstwhile redundancy is pardoned with the march of history, as cultural or technological developments force a retroactive modification of the noun to secure its original referential meaning:

- | | | |
|----------------------|----------------|---------------------------------|
| (15) acoustic guitar | cloth diaper | natural childbirth/grass/fibers |
| amateur athlete | hard copy | snail mail |
| analog watch | manual labor | therapeutic massage |
| biological mother | Roman Catholic | vinyl disk |

What was once a watch or a mother *tout court* must now be suitably qualified in the relevant context. As with the Double — and the *un*-verb — the potential redundancy is overridden by communicative needs within the brave new world of discourse.

But not all instances of least-effort-override have such Q-based informational motivation; it is to one variety of non-Q-sanctioned redundancy that we now turn.

3. Motivated Redundancy, Type (ii): Non-Informational Override

To buttress the standard (insufficient) set of diagnostics for conversational implicature we have inherited from Grice (1975) and his epigones, Sadock (1978: 294) proposes the criterion of REINFORCEABILITY, the susceptibility of an implicatum to non-redundant affirmation. The premise is that — unlike material that is semantically inferrable from something preceding it in a discourse frame¹⁰ — material which is merely implicated may always be reinforced or reaffirmed with no sense of redundancy.

-
- A: Did you hook UP hook up?
B: No, we just hooked up hooked up.

¹⁰ A proposition is semantically inferrable if it is entailed, semantically presupposed, pragmatically presupposed, or conventionally implicated by what the speaker has already uttered. In each case, the inference is non-cancelable (Grice 1975), whether or not it is truth-conditional.

Nonredundant affirmability applies hand-in-hand with the Gricean criterion of cancelability. Thus, the **Q**-based inference from *Some Fs are G* to the proposition that, for all the speaker knows, not all Fs are G is felicitously cancelled in (16a) and reinforced in (16b).

- (16) a. Some, in fact all, men are chauvinists.
b. Some but not all men are chauvinists.

Similarly, the **R**-based inference from α *was able to* ϕ to α ϕ 'd can be cancelled or nonredundantly affirmed, as seen in (17).

- (17) a. Kim was able to solve the problem but she didn't solve it.
b. Kim was able to solve the problem, and (in fact) she solved it.

Thus if P implicates Q, the implicatum Q may be cancelled without contradiction and affirmed without redundancy.

This property of conversational implicata is crucially not shared by entailed and presupposed/conventionally implicated material, which — or so it would appear — may not be cancelled or non-redundantly affirmed. Thus, we see in (18) that entailed propositions are unacceptably redundant when reaffirmed:

- (18) a. #I managed to win and I did win.
b. #I wasn't able to win and I didn't win.
c. #The king of France is bald and there is a king of France.

But matters are not so simple. Consider, for example, the distribution of the emotive factive *odd*, which induces a presupposition that its complement is true. As Sadock notes, (19a) is predictably contradictory and (19b) predictably redundant.

- (19) a. #It's odd that dogs eat cheese, even though they don't.
b. #It's odd that dogs eat cheese, and they do.

But under certain conditions, the infelicity of a redundant affirmation disappears, as seen in (20a). Parallel examples are given in (20b-d), while as seen in (21) the corresponding cases with reversed polarity are ruled out.

- (20) a. It's odd that dogs eat cheese, but they do (eat cheese).
b. I don't know why I love you, but I do.
c. He regrets that he said it, but he did say it.
d. The milk train doesn't stop here anymore, but it used to.

- (21) a. #It isn't odd that dogs eat cheese, {and/but} they do.
 b. #I know why I love you, {and/but} I do.
 d. #He doesn't regret that he said it, {and/but} he said it.
 e. #The milk train still stops here, {and/but} it used to.

What licenses the reaffirmation of something that has already been affirmed? In Horn (1991a), I consider two potential generalizations to describe the relevant facts. The first is suggested by Ward (1985), who cites the contrast in (22) (parallel to the above cases but with the preposed syntax characteristic of 'proposition affirmation') and characterizes it in terms of expectation and its disappointment.¹¹

- (22) a. He won by a small margin, but win he did. [Ward's (404)]
 b. #He won by a large margin, but win he did. [Ward's (405)]

Here, it is precisely the size of the vote margin which determines the degree to which the proposition 'He win' is contrary to expectation, and thus the difference in acceptability between the two instances of PA [proposition affirmation]. (Ward 1985: 232)

But this account does not generalize to the full range of cases (with either preposed or canonical syntax) in which informationally redundant is acceptable, including those in (23).

- (23) a. It wasn't a dominating victory, but still it was a victory.
 (cf. #It was a dominating victory, and/but it was a victory.)
 b. They win ugly, but they win.
 (cf. #They win {magnificently/elegantly}, and they win.)
 c. They barely won, but win they did.
 (cf. #They easily won, {and/but} win they did.)
 d. You made {few/only a few} mistakes, but you did make some.
 (cf. #You made a few mistakes, {and/but} you made some.)

With these contrasts in mind, a second stab at a general pattern of explanation may be adapted from the Anscombe & Ducrot (1983) theory of argumentation. My tentative version is as follows:

The affirmation of Q when informationally redundant on an established proposition P will be discourse-acceptable if it counts as ARGUMENTATIVELY DISTINCT from P: i.e. given that P counts as an argument for

¹¹ A later version of proposition affirmation, one that discusses the concession/affirmation structures of Horn (1991a) as well as other contexts of acceptable-though-redundant affirmation, is offered in Ward (1989).

a conclusion R, Q represents or argues for an opposite conclusion R'.
(Horn 1991a: 326)

But this approach too proves overly narrow, in the light of such attested cases as those in (24), which in fact seem more in line with Ward's notion of surprise or frustrated expectation.

- (24) a. While she was dying, and I knew she was dying, I wrote my best book. I wrote it in agony, but I wrote it.
(Raymond Chandler on how he completed *The Long Goodbye* while his wife lay mortally ill)
- b. Tony Fernandez, the Blue Jays' outstanding shortstop, has been playing with stretched ligaments in his left knee, but he has been playing.
(N. Y. Times 9/10/87, B14)

In the examples of (25), furthermore, the contrast in acceptability involve a similar kind of rhetorical opposition between the two conjuncts in each case, but the contrast cannot be straightforwardly elucidated by invoking either the notion of surprise or that of argumentative distinctness.

- (25) a. I'm {unhappy/#happy} they fired him, but fire him they did.
b. I'm {sorry/#glad} I said it, but say it I did.

Whatever the ultimate formulation of the needed generalization, we can collapse all these cases under the rubric of CONCESSION/AFFIRMATION structures: I concede P and (then) I affirm Q, where Q may follow logically from P, but contrasts rhetorically with it.

Notice that in each of our cases in which rhetorical opposition sanctions an informationally redundant concession/affirmation structure, with or without fronted syntax, the same opposition renders *but* rather than *and* the appropriate conjunction. This parallel emerges clearly in the paradigm in (26):

- (26) a. It's unfortunate that you failed, but fail you did
(... and there's nothing you or I can do about it).
b. #It's fortunate that you passed, {and/but} pass you did.
c. It's pure luck that you passed, but pass you did
(... and that's all that matters).

In (26a) I concede that a certain state of affairs is unfortunate, against which I portray myself as forced to insist that this state of affairs does obtain (despite the negative face I incur in so

insisting; cf. Brown & Levinson 1987); the dissonance sparks the adversative *but* and the acceptability of the affirmation.¹² In (26b), the absence of any dissonance between the clauses rules out both *but* and the redundant affirmation. Finally, in (26c), I again note the happy fact of your passing, but this time I acknowledge that the desired outcome was precisely a consequence of this good fortune, rather than being attributable to skill, preparation, hard work, or some other more highly valued factor. Thus in (26c) — as in (26a), and as against the superficially similar (26b) — there is a social dissonance between my reporting the news and the concessive face I must put on that news, although the news itself this time is good. The dissonance between cloud and silver lining yields the felicitous *but* conjunction and the rhetorically motivated, if informationally superfluous, affirmation.

A particularly virtuosic double concession/affirmation is provided by an extract from the back cover blurb for Bess Arden's 1988 novel *Practice to Deceive*, in which the various supporting players to heroine Annie Rose are individuated:

REX RYDER:

Her latest lover and a brilliant analyst. He
won't leave his wife but he does love Annie.
He hates that he does, but he does.

The pattern here is [Concede W, Affirm L_A], [Concede H, Reaffirm L_A], where both W (Rex's refusal to leave his wife) and H (Rex's hating L_A) might be taken as normally incompatible or dissonant with L_A (his loving Annie). Strikingly, L_A can be felicitously reaffirmed after the concession of H by virtue of its rhetorical opposition to that clause, despite both the fact that H semantically entails and/or presupposes L_A and the fact that L_A itself has already been established as true in the preceding discourse. The rhetorical juxtaposition makes its point: brilliant

¹² Another key ingredient here, as Lyn Walker (p.c.) points out, is that the rhetorical opposition must be in focus. Thus (26a) contrasts minimally with (i) #Unfortunately you failed, but {you did fail/fail you did}.

analyst he may be, but the poor guy clearly has his work cut out for him.

As we have seen, apparently redundant material may be acceptable in context, either because the redundancy is only apparent (in those cases where least effort is overridden by the need for informational clarity) or because true informational redundancy is sanctioned on rhetorical grounds. In the latter case, as illustrated by concession/affirmation structures, we must allow for a functional motivation orthogonal to our dualist functionalism. In this respect, it is worth recalling the functionalist Henri Frei (1929) and his ‘grammar of errors’, a valuable study of the lexical interaction of three principles he labels *le besoin de brièveté* (akin to our **R**), *le besoin de différenciation* or *clarté* (akin to our **Q**), and *le besoin d’expressivité*. We now turn to a source of redundancy which illustrates both informational and rhetorical (expressive) motivations for the overriding of least effort.

4. Motivated Redundancy, Types (i)+(ii): The Economy of Double Negation

Our last specimen will be double negation, or more precisely that variety of double negation in which each negative marker retains its semantic identity, thus (essentially, if not exactly) tending to annul rather than reinforce each other. The expectation that two negatives should cancel out is a linguistic reflex of the logical Law of Double Negation, $\sim(\sim\alpha)\equiv\alpha$, a law whose co-sponsors include the Stoics of Greece and the Buddhist and Nyāya logicians of India, and whose conscientious objectors include the Intuitionists and — if only by his eloquent silence — Aristotle (cf. Horn 1989: 22, 84, 135 for details). In the familiar language of Bishop Lowth’s edict (1762: 126), ‘Two negatives in English destroy one another, or are equivalent to an affirmative.’ But if the concordial negation is condemned as illogical or uneducated, the use of logical double negation is itself largely dismissed by grammarians of all stripes as a marginal, superfluous, and suspiciously Latinate phenomenon.

One born-again liberal judge, however, was the best-selling American authority Lindley Murray, who after first endorsing the episcopally approved proscription against the double negative —

Two negatives, in English, destroy one another, or are equivalent to an affirmative: as, "*Nor* did they *not* perceive him"; that is, "they did perceive him". "His language, though inelegant, is *not ungrammatical*," that is, "it is grammatical". It is better to express an affirmation, by a regular affirmative, than by two separate negatives, as in the former sentence.
(Murray 1803: 136-7)

— suspended the sentence in his second, 'improved' edition:

... but when one of the negatives is joined to another word, as in the latter sentence, the two negatives form a pleasing and delicate variety of expression.
(Murray 1814: I.187)

Rather less inclined to leniency are Tesnière (1959: 233), who excoriates *nec non dixit* ('nor did s/he not say', i.e. 'and s/he said') as '*une des fausses élégances du latin*', and especially that redoubtable redundancy hunter George Orwell (1946: 357, 365), whose favored prey was the dread *not unjustifiable assumption*:

Banal statements are given an appearance of profundity by means of the *not un-* formation... It should be possible to laugh the *not un* formation out of existence... One can cure oneself of the *not un* formation by memorizing this sentence: *A not unblack dog was chasing a not unsmall rabbit across a not ungreen field.*

Full redundancy, however, would demand an equivalence of *not unA* and *A*, and — as Jespersen (1924: 332) observes — it is not obvious that such equivalence in general obtains.

Language has a logic of its own, and in this case its logic has something to recommend it. Whenever two negatives really refer to the same idea or word the result is invariably positive; this is true of all languages... The two negatives, however, do not exactly cancel one another so that the result [*not uncommon, not infrequent,...*] is identical with the simple *common, frequent*; the longer expression is always weaker: "this is not unknown to me" or "I am not ignorant of this" means 'I am to some extent aware of it', etc. The psychological reason for this is that the *détour* through the two mutually destructive negatives weakens the mental energy of the listener and implies... a hesitation which is absent from the blunt, outspoken *common* or *known*.

On most maps, Jespersen's *détour* appears as an elevated highway. Thus, Marchand (1960: 151-2) comments that 'Natural

linguistic instinct would not make the sophisticated detour of negating a negative to obtain a positive.' *Not uncommon, not unhappy*, and (somewhat less convincingly) *not bad*, while possible collocations, would thus fall outside what is permitted by 'natural linguistic instinct.'

While Orwell's *not unblack dogs* and *not unsmall rabbits* may be beyond salvation, an earlier and perhaps subtler stylist, Erasmus recommended the use of other double negatives as 'graceful.' We have encountered Lindley Murray's reconsideration of double negatives as forming 'a pleasing and delicate variety of expression'; more recently, Sharma (1970: 60) lauds its use as 'often extremely useful and by no means superfluous,' as when *not impolite* is used 'to convey the fact that the person in question was not polite either.' But what quality could render a given construction simultaneously laughable, faux-elegant, graceful, pleasing and delicate, and extremely useful, depending on the context and the evaluator?

Crucially, the playing field for *not unA* tokens is not level. In Aristotle's theory of opposition, CONTRARY opposites are mutually inconsistent but not mutually exhaustive while CONTRADICTIONARY opposites mutually exhaust their domain (see Horn 1989 for elaboration). When a neg-prefixed adjective is a contrary of its stem, a contradictory negation will not simply destroy it: what is *not unlikely* may well be likely, but it may also fall within what Sapir (1944) calls the ZONE OF INDIFFERENCE, that which is neither likely nor unlikely. Someone may be *not unhappy* because she's happy, or because she's feeling blah. But if something is *not inconceivable* or *not impossible*, what else **can** it be but *conceivable* or *possible*? Where is the zone of indifference, the unexcluded middle, in these cases? Why don't these doubly negated forms, amounting to the contradictory of a **contradictory**, result in complete redundancy?¹³ What motivates a

¹³ Such examples are hardly rare: the majority of the *not un-* forms cited in the OED (under **not**, 10c), including *not unuseful*, *not inconsiderable*, and *not unclever*, are negations of logical contradictories. Someone with 'a certain air of dignity, not unmingled with insolence' (OED citation, 1900) is not situated in a zone of indifference where dignity cavorts neither mingled nor unmingled with insolence. Nor is it clear how finding a

sophisticated detour, when the through road is (not im)passable? Note that the violation of least effort seems especially perverse here, since double negation violates not only Grice's Brevity maxim, i.e. the **R**-based principle of syntagmatic economy, but also the **Q**-based informativeness criterion: a double negative is longer and typically weaker than its simpler affirmative counterpart.

If the *not unA* collocation is, as Zimmer (1964) notes, 'logically quite justified' when *unA* is the contrary of A, it must be **rhetorically** justified elsewhere — or at least not unjustified. Indeed, it appears that a doubly negated adjective is often perceptibly weaker or more hesitant (à la Jespersen) than the corresponding simple positive, whether the weakening is identifiable in the semantics (*not unhappy, not unintelligent, not impolite*) or is only pragmatic or rhetorical. For Seright (1966: 124), the use of double negation 'results from a basic desire to leave one's self a loophole: certainly it is much easier to get out of a situation, to equivocate, if one has said "it is not unlikely" instead of "it is not likely" or "it is likely"'. With the conscious or tacit goal of loophole-procurement, the speaker describes something as *not unA* in a context in which it would be unfair, unwise, or impolitic to describe that entity as A. We see this in the attestations in (27), contributed by an essayist, two cartoonists, and a poet:

- (27) a. I do not pretend to be a "pure" bachelor. I was married for five years, and it was, to use a cowardly double negative, not an unhappy experience.
(Phillip Lopate, Introduction to *Bachelorhood* (1981))
- b. Abject employee to boss: "Chief, I'm truly sorry!"
Boss: "Oh, very well, Thornapple, you are not unforgiven."
Employee, walking off: "You never know just how to interpret him..."
(Comic strip "The Born Loser", *New Haven Register*, 2/21/90)
- c. [Scene: Couple standing before doormat inscribed NOT UNWELCOME]
Wife to Husband: "See what I mean? You're never sure just where you stand with them."
(Cartoon in *New Yorker*, 2/8/71)

suggestion *not unuseful* differs from finding it *useful*, or how Jespersen's description (1917: 70) of Kant's table of categories as 'not unobjectionable' fails to reduce to declaring it objectionable.

- d. Nothing shows why
 At this unique distance from isolation,
 It becomes still more difficult to find
 Words at once true and kind,
 Or not untrue and not unkind.
 (Philip Larkin, from "Talking in Bed")

The implication in each case is clear: a not unhappy marriage is not precisely a happy one, Mr. and Mrs. Dinner-Guest are left feeling not exactly welcome, and so on.

This understanding is stressed by Fowler, who first consigns the doubly negated attribute to the Orwellian ashheap of 'faded and jaded elegance,' but then pulls a Lindley Murray to pardon it on grounds of national security:

The very popularity of the idiom in English is proof enough that there is something in it congenial to the English temperament, & it is pleasant to believe that it owes its success with us to a stubborn national dislike of putting things too strongly. It is clear that there are contexts to which, for example, *not inconsiderable* is more suitable than *considerable*; by using it we seem to anticipate & put aside, instead of not foreseeing or ignoring, the possible suggestion that so-&-so is inconsiderable. (Fowler 1926: 383)

In its prototypic exemplars, then, *not un-* is used to assert more weakly, tentatively, or circumspectly the content of the simple positive. As shown by the standard scalar diagnostics in (28), even double contradictories pattern as weaker than their corresponding simple affirmatives, whether by infection from the parallel negation-of-contrary cases or through the iconic connection between circumlocution and attenuation (cf. Haiman 1985):

- (28) a. She's happy, or at least not unhappy.
 (*not unhappy, or at least happy)
 b. It's possible he can do it,
 or at least it's not impossible.
 (*not impossible, or at least possible)
 c. Not only is it not untrue, it's true!
 (*not only true, but not untrue)
 d. It's not even not untrue, let alone true.
 (*not even true, let alone not untrue)

But rather than appealing for an explanation, with Jespersen, to the rather Victorian image of double negation sapping the listener's mental energy, we can assimilate this effect to our Division of Pragmatic Labor.

From this perspective, we would expect to find a range of contexts in which the use of the double negative might be motivated by a desire to avoid the simple positive description, including contexts in which *not unX* might come out not weaker but actually stronger than X. Some have in fact seen double negation as functioning characteristically to reinforce rather than qualify a description. Indeed, though Sigwart (1895: 149) anticipates Jespersen in his remark that even when the doubly negated adjective is not ‘richer in meaning’ than the simple positive alternative, ‘it is not altogether to no purpose [!] that this circuitous route is taken,’ the purpose he imputes is precisely the opposite of Jespersen’s: ‘Resisted attacks increase the psychological firmness of conviction; the affirmation which has fought through a negation seems to stand firmer and to be more certain.’

While Sigwart’s line may seem less plausible than the standard line on the attenuating or loopholic effect of double negation, especially when we consider the negated-contrary (*not unhappy, not unintelligent*) class, the two views are not incompatible. When a prefixal negative is itself negated so as to yield a positive, any one of a number of motivations may be at work, not all of which are subsumable under a single metaphor, be it Sigwart’s good soldier, Jespersen’s weakened mental energy, Marchand’s sophisticated detour, or Seright’s loophole. When a simple positive description gives way to the prolixity and potential obscurity of a double negation, there is always (given the Division of Labor) a sufficient reason, but it is not always the same reason.

This point would not have been lost on Erasmus, who — under the heading *Commuta in Negationem* (‘Change it into a Negative’) in his *Colloquia* — recommends the use of double negation as a discreet means for conveying a strong positive, e.g. *non ineloquens* for the blatant and overdirect *eloquentissimus*, ‘Your letter was no small joy’, ‘Wine pleases me not a little’.

More precisely, Erasmus (1517: 617-18) slyly warns his reader,¹⁴

You shouldn't be left uninformed [!] that we use this sort of diction in two ways: for the sake of modesty, especially if we're talking of ourselves, and the sake of amplifying. For we say correctly and gracefully "not ungrateful" for "very grateful", "not vulgarly" for "singularly". [*Non ingratum, pro valde grato: non vulgariter, pro singulariter, recte & venuste dicimus.*]

In Horn (1991b), I outline a taxonomy of motives for double negation which I can but touch on and exemplify here:

(29) DOUBLE NEGATION: A TAXONOMY OF MOTIVES

- a. Quality: S is not sure A holds, or is sure it doesn't (where *unA* is contrary of A).
- b. Politeness: S knows (or strongly believes) A holds, but is too polite, modest, or wary to mention it directly.
- c. Weight or impressiveness of style: S violates brevity precisely to avoid brevity.
- d. Absence of corresponding positive: *not unA* is motivated by the non-existence of A, or by the impossibility of using A appropriately in the context.
- e. Parallelism of structure: *not unA* is in juxtaposition with earlier *unB*, as in the construction $B_{neg} \{if/but\} B'$, where B' is more naturally realized as a DN.
- f. Minimization of processing, in contexts of direct rebuttal or contradiction: S's assertion x is *not unA* is triggered by an earlier assertion (or suggestion) to the effect that x is *unA*.

(29a) is the epistemically-triggered negation of the contrary, where a speaker must violate Brevity and Quantity because she is bound by the need to observe Quality: if I'm not sure he's happy, *He's not unhappy* may be the best I can do.

"These days all marriages seem to be doomed", said Barney. "Who's happy?"

"I'm **not unhappy**", Mike offered.

(Gael Greene, *Doctor Love* (1982), p. 209)

(**Boldface** is added to this and following citations to mark the relevant DN.)

¹⁴ Erasmus here closely follows Brown & Levinson's (1987: §5.4) exposition of the role of negative politeness in the avoidance of face-threatening acts.

(29b) collects the loopholic, gracious, and cowardly DN: S seeks to avoid the direct expression of a face-threatening act. Contexts of politics, religion, and literary criticism abound.¹⁵

[An unidentified senior Republican source] said there were also widespread rumors that Brent Scowcroft, the national security adviser, was "**not displeased**" at the Gray-Baker fight.

(NYT article (3/29/89: A16) on "vendetta" between Secretary of State James Baker and White House counsel C. Boyden Gray)

It is difficult to document the books' influence, but it is **not uncommon** for [Japanese] businessmen to express concern over what they see as excessive Jewish influence in American foreign policy.

(NYT article (2/19/91: A11) on popularity of anti-Semitic books in Japan)

A number of Mormons who would not discuss the rituals verified that these reports were "pretty factual" or "**not inaccurate**".

(NYT article (5/3/90: A1) on elimination of secret Mormon temple rituals requiring women to wear veils and portraying non-Mormon clergy as hirelings of Satan)

Mrs. Thwaite has also written lives of Edmund Gosse and Frances Hodgson Burnett, and you can sometimes hear in her prose the plummy, throat-clearing tones of old-fashioned literary homily. In this book, as in the others, they are **not inappropriate**.

(Review in *New Yorker*, 4/8/91: 95, of biography of A. A. Milne)

Though it may **not** be **impossible** for what starts life, so to speak, as a conversational implicature to become conventionalized, to suppose this is so in a given case would require special justification.

(Grice (1975: 58))

In a radio interview in Budapest on Thursday, Judith Toth, head of the refugee department in the Ministry of Internal Affairs, said that "it would **not** be **impossible**" for Hungary to grant asylum to East German citizens if, as expected, Parliament adopts a refugee statute under discussion.

(NYT article (8/6/89: A3))

I haven't seen *Pretty Woman*, but I read the script..., and it was a dark, kind of quirky, depressing, *not uninteresting* script. Now, the first thing they do is cast a twenty-one-year-old cheerleader in that movie...

(Ellen Barkin interviewed in *Esquire*, April 1991: 103)

¹⁵ Overlapping with these categories or overlaid upon them is the pursuit of irony: S acts as if she is hesitant, unsure, modest, etc., even when these propositional attitudes are just put on for the occasion. See Nash (1986: 91) on ironic double negation in e.g. *They are not unskilled* or *The plan is hardly assured of success*.

The wimpish or coy avoidance of directness may inspire the innovation of an *not unA* form even in the absence of an *unA* base. Such innovations, however, may be met with some resistance on the part of the recipient:

The eyes [of the convenience store cashier] focused on me more sharply. "Honey, you don't need the Personals. I mean, you're **not uncute.**" [...]

I slid behind the wheel. "Did you realize I'm **not uncute**?"

"You're not what?"

"Uncute. According to the cashier."

She gave me a look of disgust. "Sometimes I despair for the future of the English language."

(Dorothy Sucher, *Dead Mean Don't Marry* (1989), 210-11)

"You're not enjoying this are you, me stroking you? Your face went all resigned when I started. Are you?"

"I'm **not disenjoying** it."

"Thanks a lot," said Brenda, stopping stroking.

(Kingsley Amis, *Jake's Thing* (1979), 57)

In (29c), the double negator violates Brevity precisely to **avoid** brevity, to achieve a lofty, impressive, or expressive style.¹⁶ Into this category falls the deployment of DN as the obfuscatory defense mechanism of the bureaucrat and the stentor, along with Orwell's *not unblack dog* and Tesnière's *nec non dixit*.

A less frequently remarked-upon motivation for DN as cited in (29d) is the use of *not unA* prompted by the absence of any corresponding positive form A:

"By becoming pregnant women do not waive the constitutional protections afforded to other citizens", the judge said. "To carry the law guardian's argument to its logical extension, the state would be able to supersede a mother's custody right to her child if she smoked cigarettes during her pregnancy or ate junk food, or did too much physical labor or did not exercise enough." Women's rights lawyers

¹⁶ Recall the Third Force of Frei (1929), his non-informationally grounded *besoin d'expressivité*. The target here is Aristotle's concept of *ὄγκος* (*Rhetoric* III.6), whose literal meaning of 'bulk, weight' extends from dignity and majesty into pretension and bloat, as weight slides into **overweight**, pomp into pomposity.

say such concerns are **not unfounded**, and point to the case of Pamela Rae Stewart...

(NYT article (1/9/89: A11), on judge's dismissal of state move to indict a pregnant drug user for child neglect against fetus)

Student-Athletes? *Not Unthinkable*.

(NYT Editorial Headline, March 1991)

Another class is governed by the parallelism factor in (29e), where the negatively primed negative structures are more natural than their soi-disant "simpler" affirmative counterparts would be:

unexpected but **not unwelcome**
 unlikely if **not impossible**
 improbable, maybe, but **not inconceivable**
 non-Catholic but not **non-Christian**

As bad as the increase in murders was, it was **not unexpected**.

(NYT article (4/23/91, B4) on 1990 murder rates in New York City)

Though Giamatti has power, it is not totally arbitrary, not unbridled, and **not**, as they say in legal circles, **unreviewable** by the courts.

(NYT column (5/8/89: C4) on the Pete Rose case;
 note also the (d)-type DN **not unbridled**)

These DNs serve to minimize speaker and/or hearer processing, a factor also involved in the double negation of direct rebuttal noted in (29f), where *not unA* is triggered by a prior instance of *unA*. Both contrary and contradictory *unA* attributions can be denied in this context with nothing at all implicated concerning informative strength; in the citations below there is no suggestion that chamber music audiences might be neither limited nor unlimited, or that a solution to a mystery might be neither possible nor impossible.

For years, the Chamber Music Society's horizons seemed unlimited. Concerts sold out to the walls. Performing units were dispatched to other cities and festivals, enhancing the group's national reputation and increasing musician income. But an additional Monday evening series did not do well and it became apparent that the audience for chamber music in New York was **not unlimited** after all.

(NYT article (12/4/88: H27) on the Lincoln Center ensemble)

"You say you think he's in trouble, but the evidence points to a runaway with Marjorie. What's so impossible about that?"
 He smiled slightly. "It's **not impossible**. Middle-aged man... but it just doesn't seem like him."

(Shelley Singer, *Full House* (1986), p. 48)

As we have seen, the use of "logical" double negation may appear to be more or less logical, depending on the semantics of the token and on extralogical considerations of rhetorical goals and discourse context. But what is the logic of double negation? Geach (1972: 80), acknowledging that a double negation, *not (not (P))*, 'looks like an added piece of meaning' and so might well be thought to involve a different sense from that of the basic element *P*, asks how — given the Law of Double Negation — this different sense can be expressed. Citing Frege (to whom we shall return), Geach concludes that 'the right rejoinder is just to deny that the doubly negated predicate has got a different sense.' But then we are left with no explanation for the perceptible weakening or attenuation associated with double negation by Jespersen and others, including Geach himself.

Hintikka (1968: 42-47) begins from the same point as Geach, with the observation that 'in ordinary language a doubly negated expression very seldom, if ever, has the same logical powers as the original unnegated statement,' and follows with a semi-rhetorical question and an unequivocal reply:

Does not our propositional logic therefore distort grossly the logic of ordinary language? The answer is... that if the basic meaning is assumed to be tantamount to that of the original unnegated expression we can explain the residual meanings which a doubly negated expression has on different occasions... But no one of these residual meanings helps to understand the others, which makes a paradigmatic analysis of the meanings of a double negative completely useless.

Hintikka's 'residual meanings' include the indication of hesitancy or uncertainty, the signalling of diffidence, and the expression of irony. Our other contextual requirements for double negation from the taxonomy in (29) — not all of them really meanings at all, as in the DNs of pattern symmetry and direct rebuttal — would serve only to strengthen the point that no special or 'paradigmatic' meaning of double negation can be established, but only a semantico-pragmatico-rhetorical inventory of motives.

Logical double negation, like the superordinate category of LITOTES or rhetorical understatement subsuming it¹⁷, has been recognized for millenia as a prototype instance of circumlocution or periphrasis, its distribution subject to what Hintikka calls ‘the pragmatic pressure not to use circumlocutions without some specific purpose’ (1968: 42). While there are, as we have also seen, several such purposes that can act separately or in concert to motivate periphrastic double negation, let us return once more to the modesty parameter. In the *Philosophy of Rhetoric*, Campbell (1801: 247) remarks of circumlocution that ‘We choose it for the sake of decency, to serve as a sort of veil to what ought not to be nakedly exposed.’ And so it is with double negation.

Classical Fregean propositional logic allows for but one negative operator, the contradictory-forming propositional operator. Not unexpectedly, Frege (1919: 130) proclaims the logical superfluity of double negation: ‘Wrapping up a thought in double negation does not alter its truth value.’ Within this metaphor, $(\sim\sim\phi)$ and $(\sim(\sim\phi))$ are simply different ways of wrapping up the thought or proposition ϕ . But, we may observe, there are times and places where we cannot go naked, when wrapping ourselves up serves to shield from sight ‘what ought not to be exposed’ while leaving the inner self unaltered. So too with naked thoughts — especially those unappealing ones which profit most from the modesty provided by the protective layers of double negation.

Our investigation of the Division of Pragmatic Labor has revealed a dichotomy between those cases in which least effort is overridden on Q-based grounds typically involving the avoidance of unclarity or homonymy, as against those in which the

¹⁷ Litotes via the negation of the contrary is first discussed under the Greek label ἀντεναντιώσεις ‘saying the opposite of the opposite’, illustrated by the denial of the superlative in the oft-cited Homeric turn *not the weakest of Achaeans* for ‘the strongest’. The fourth century Latin rhetoricians Donatus and Servius initiated the received characterization of litotes (not slow for ‘very quick’, *no small matter* for ‘a matter most important’) as a figure in which we say less and mean more, *minus dicimus et plus significamus* (cited in Hoffmann 1987: 28-9). Thus litotes encapsulates pragmatic inference, for we have here in embryo Grice’s celebrated contrast of what is said vs. what is meant, along with Levinson’s dictum (1987b: 402) for R-based inference: ‘The less we say the more we mean.’

override is motivated by non-informational, rhetorical considerations. Instances of the former motivation for non-economy are provided by redundant affixation (including the pleonastic *un-*verb) and by the Double, while the latter variety is exemplified by redundant reaffirmation of the given. What makes double negation particularly worthy of study in this light is its potential to instantiate both varieties of anti-economic modes of expression, depending on the motivation for a particular token.

The thesis that linguistic redundancy constitutes a principled and motivated exception to the forces of economy, a thesis suggested by Paul and Zipf and significantly advanced by Martinet, provides a valuable tool for exploring an explaining the interaction of a wide range of linguistic phenomena, a few of which I have tried to illuminate in this study.¹⁸

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¹⁸ Haiman (1985) provides his own display of cases in which the drives toward paradigmatic and syntagmatic economy can be observed in conflict with each other and with other forces. Haiman's Zipfian perspective is somewhat different from mine, but the two approaches are complementary rather than competing.

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