

On Contrary in the Form of Contradictory—a Neo-Gricean Approach

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Abstract

The purpose of the research is to explore the use of negated evaluative terms; specifically the question is why in some cases, negated positive terms can trigger a negative reading while negated negative is harder to be attached with a positive reading—an asymmetry. Two aspects will be discussed, i.e. how people could read affirmative out of negative and why they would choose to use negative rather than affirmative form of expression. Based on Neo-Gricean standpoint on implicature, the current research suggests ambiguity and markedness are the key to understand the puzzle—how people can read such negation differently. Also the study attempts to shed some light on the reason behind the puzzle by arguing it is multi-disciplinary.

Keywords: Negation, implicature, asymmetry

1. Introduction

1.1. The Goal Of This Paper

In this paper I will discuss the asymmetry in use between negated positive and negated negative terms. In the first section, I will put forward the puzzle and review relevant literature on negation—in an attempt to show the uniqueness of negative expression, i.e. the inherent ambiguity behind the puzzle. In the next three sections, I will try to propose a Neo-Gricean approach on how the puzzle could get resolved.

1.2. The Puzzle

To begin with, imagine there is a family where the parents are going to evaluate the work/grades of their child, based on how the kid actually does, they may use one of the four statements:

- (1) You are good.
- (2) You are bad.
- (3) You are not good.
- (4) You are not bad.

It can be observed that in this particular case (3) can be used interchangeably with (2) while (1) and (4) are hardly equivalent; when one states “you are not good”, the listener’s intuition is most likely to take the statement as something evaluatively bad while leaving aside the neutral condition—to which Sapir²⁶ referred as Zone of Indifference; for the negated negative “you are not bad”, the same pattern does not appear: Zone of Indifference plays an active role in the latter but not in the former case, compromising a potential positive reading. I am not suggesting that this is a universal

phenomenon given diversities across cultural and linguistic communities, but the asymmetry--“not bad” tends to be used more loosely while “not good” --is more restricted to something negative, do pose a puzzle at least in some scenarios.

In addition, such asymmetry only occurs in “mild” adjectives, superlatives like “best” or “worst”, or strong adjectives like “excellent”, tend to have a more symmetrical use, like “you are not excellent” is less likely to be a negative evaluation.

In literature, this asymmetry in use has been well captured and documented ^{7, 16}. While it seems to be much fuzzier than what it appears and more extensive than presented in the scenario, to say there is asymmetry in use between negation and affirmation is to presuppose that negation differs from affirmation in some *particular* and *systematic* way. Therefore, it is necessarily to clarify the uniqueness of statement like (3) and (4)—how negation differs from their affirmative counterparts.

1.3.Negation—The Mysterious “Not”

Negation has long been a central issue of debates in the field of philosophy. In *Sophists*, Plato²⁴ had argued that “When we say not-being, we speak, I think, not of something that is the opposite of being, but only of something different” (257B).The implication pointed to two independent yet intrigued dimensions under the broad title of negation: one is strong as the opposite, the other is weak as mere “different”.

The idea was further pursued by Aristotle¹, who contrasted contradiction against contrariety: The former was between affirmative and negative, for example, “he dies” versus “he does not die” while the latter was between two antonyms, or so-called “opposites”, e.g. good versus bad. The crucial difference between the two forms of negation was that contradiction follows the law of excluded middle, i.e. one of the predicates (e.g. die or not die) has to be true—they cannot both be false--while the contrariety does not follow the Law of Excluded Middle in that both “he is good” and “he is bad” can be false, given the possibility of “he is neither good nor bad”. Thus, for Aristotle¹, the difference in use of negation was captured as “Nothing can exist between two contradictories, but something may exist between contraries” (1055b2).

Formal logic, on the other hand, operates through truth-functional rules and thereby only captures contradictories: if the proposition p is true, $\sim p$ (not p) is false, and if p is false, $\sim p$ is in turn, true ^{11, 14 & 20}. Yet this is the very point that is problematic in the above case; by saying (3)/ (4) the parents claim something more than the falsity of (1) / (2). What is more relevant here appears to be a form of negation which can be read as affirmative as “you are not-good”, something like Aristotle’s contrariety. This is echoed by philosophers, like Russell’s²⁵ treatments, the strong negation of Von Wright³⁰ and Bergmann’s³ internal negation.

Meanwhile though being able to be read as affirmation, the logic of contraries offer no fewer problems. For the first, the divergence of contrary and contradiction can destroy the simplicity of formal logic; Von Wright³⁰, in distinguishing his two logics of negation, even proposed that “not-true” was not equivalent as “false”. Further, Horn¹⁴ pointed out such logic preserves rather than blocks semantic presupposition— also endorsed by the retention hypothesis¹⁰—negation markers hedge information rather than discard it. The implication is that, the function of “not” varies with pragmatic factors, sometimes it cancels, and sometimes it may even affirm.

At the present stage, it is tempting to suggest that negation is flexible for multiple functions, and thus the problem is that statements with negation become ambiguous, hard for “clear-cut” interpretation; even if we succeeded in reducing all the diverging functions of negation into simply two—contradictories and contraries, given they can share the same syntax, the ambiguity can hardly be totally eradicated.

Perhaps due to the ambiguity, negation also has other unique properties. Clark and Clark⁶ suggested that negated terms is associated with longer processing time. There is also literature ^{5, 15} indicating that all things equal, negative sentences are apparently harder than their affirmative partners.

Above all, a perplexing issue for negation is its interchangeability to affirmation, that is, a given statement involving negation seems readily transformable into affirmation without losing semantic content. Indeed Giora¹⁰ even argued that almost everything negatives can do affirmatives can do as well. In other words, in terms of what is said, negation and affirmation can mean the same thing except that it is more ambiguous as well as complex.

Thus it is not enough to say that negation is uniquely more ambiguous than its affirmative counterpart. For an adequate account resolving the asymmetry outlined in the beginning, I believe, two questions are put forward: (a) how do people read affirmation out of negation as in the puzzle and (b) why do people sometimes prefer negation; below I will try to sketch an account using Neo-Gricean implicature as a framework to address the two questions in order to shed some light on the more ultimate problem: why “not good” and “not bad” can differ.

2. Beyond What Is Merely Said

2.1. Implicature

Grice¹³ (also see Neale²²) argued that people figured out the intended meaning from what was barely said by following the Cooperative Principle: “Make your conversational contribution such as is required, at the stage at which it occurs”. The specification of the Cooperative Principle fell into the four maxims (p.45-46).

The Maxims of Conversation:

Quantity: make your contribution as informative as is required; make it no more informative than is required.

Quality: Do not say what you believe to be false. Do not say that for which you lack evidence.

Manner:

Be perspicuous;

(1) Be brief;

(2) Be orderly;

(3) Avoid ambiguity;

(4) Avoid obscurity of expression.

Failure to observe the maxims leads to the generation of what Grice¹³ labeled “conversational implicature” in order to preserve the general supposition of Cooperative Principle. Grice¹³ outlined the characteristics of the implicature as making no contribution to truth condition, not part of the literal meaning of what is said, cancelable, nonconventional, nondetachable and maybe indeterminate—For our puzzle, e.g. “you are not good”, the reading “You are somehow bad” almost qualifies all of the characteristics; for example, in terms of cancelability, one can cancel the bad reading simply by stating, “you are not good but you are not bad either.” What may remain controversial is just the contribution of the term negated to truth condition and literal meaning due to its ambiguity.

If “bad” can be characterized as the implicature of “not good”, then one may find the difference between negation and affirmation can be seen as violations of several Gricean maxims, in particular, the maxim of quantity and manner—as shown before, negation appears to be more ambiguous, less specific and probably as a result, less informative in comparison to its affirmative counterparts.

2.2 Q-principle and Horn scales

Due to its complexity, Grice’s theory encounters difficulties when maxims contradict each other. So his followers refine his position by reducing the amount of maxims. Horn¹⁴, for example, reduced Grice’s maxims into two principles:

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).

These are also roughly equivalent as Levinson’s¹⁹ I and Q heuristics.

From such perspective, attributions like “you are good” can be regarded as lower-bounded by Q principle (i.e. assuming Q, the hearer infers if speaker has something to say, he or she should say it) and upper-bounded by R principle (i.e. assuming R, the hearer infer the speaker is not in a position to make a stronger predicate). Horn¹⁴ thus introduces his own scale (i.e. Horn scale) based on the interaction between the implicature elicited by the two principles: The idea is similar to the relation between some and many that the scalar structure of gradable expression is n-tuple of candidates, which can be signaled as $\langle x_1, x_2, \dots, x_n \rangle$, with x_s on the right are informatively stronger than those on the left. Thus those on the left have the upper-bounding implicata that the speaker is not in a position to assert those on the right but not vice versa; the use of x on the right unilaterally implicates the speaker is not to use x on the left.

For our puzzle, “good” and the alternatives can be placed into scale $\langle \text{excellent, good} \rangle$; “you are good” will fall between upper-bounding “at least good” and lower-bounding “not excellent”. In addition since horn scale is

constructed in terms of informativeness rather than valence, there is no scale <bad, good>, but two split scale <excellent, good> and <worse, bad>. The two scales in our puzzle “never encompass both” Levinson¹⁹. Thereby we have a clearer and still flexible picture of scalar structure.

3. Not-Good Versus Bad: No Vagueness.

3.1. How Is It possible That The Two Can Have A Similar Reading?

Once the framework is sketched, let us first examine how one can read “bad” out of “not good”. The idea is related to the lower bounding implicature of the scale, which is governed by Horn’s¹⁴ Q principle: *Say as much as you can*. Also in Levinson’s¹⁹ characterization, I-heuristics; the recipient corollary is “the Enrichment Rule.” Amplify the informational content of the speaker’s utterance, by finding the most specific interpretation...unless the speaker has broken the maxim of minimization by using a marked or prolix expression.”

As I outlined before the former, due to the interaction between negation and scalar structure, “not good” is more ambiguous than the latter—“bad” unilaterally entails “not good”. Thus by using the “not good”, from a Neo-Gricean standpoint, the maxim of quantity is violated—upon hearing “not good”, one is motivated to think why the speaker does not use the more brief and direct way of expression. To figure out this “why”, one needs to grasp what the speaker wants to truly convey behind the bare words. In a sense, the hearer is motivated to increase the informativeness, to fill in the missing information of “not good” from the context, where remaining possibilities are “bad” and neutral. Yet the latter is ruled out due to inconsistency with factors in the context (e.g. the mood in the voice of the parent). Plus, I think neutrality—neither good nor bad—may be inferior to “bad” from the very beginning, as it is restricted by its own use: To say something as good and bad is mostly to evaluate something but if it is neither good nor bad, what’s the point of speaking it out, i.e. evaluating it? From Gricean perspective, uttering “neutral” may violate the principle of minimal information, i.e. say what is necessary. Thus “bad” won out as a calculated implicature out of “not good” in an attempt to establish a more specific, and thus more informative reading.

The merit of this account lies in its consistency with our intuition: as discussed before, the puzzle only appeared in “mild” adjectives; “not excellent” does not have the negative reading. This can be explained by the implicature structure of Horn scale—when <excellent, good> is reversed by negation marker “not”, the formerly weak value, “good”, becomes informatively stronger and the scale thereby becomes <not-good, not-excellent>. Thus it is “not excellent” that generates the upper-bounding implicature that the speaker is not in a position to use “not good” but not vice versa. This explains why the asymmetrical use is weaker for stronger adjectives as “not excellent” generates additional implicature of “not not-good” which compromises the one brought out by the motive to amplify information.

So far Neo-Gricean theory shows how we are able to figure the affirmative, “bad” out of negative “not good”. Yet one may question, based on the complexity of this account, why people may prefer a more ambiguous and indirect approach with negation? Why not just use the more straightforward “bad”? It is natural to speculate that such use has some unique advantages. But to clarify the points, we may be moving to the psychology of motivation—

3.2. Face And “Good” As Speech Act

Let us start from the way implicature is calculated; to repeat, by assuming the speaker says what he or she believes to be sufficient, the hearer draws the implicature that the speaker is not in a position to use a more direct or a stronger statement. So what prevents the speaker from using the direct alternative, like “you are bad”, is a question thrown upon the hearer by the speaker. This is what Grice¹² called M-intended effect: by uttering a statement, the speaker wants the hearer to recognize not only the meaning to be conveyed but also the intention for the utterance to be recognized and this recognition becomes to some degree, why the audience would believe in the speaker’s utterance.

The recognition of one’s choice to use indirect expression with its direct counterpart equally available but not chosen, seems to be able to confer certain advantage (or avoid certain loss) on the part of the speaker. For example when one wants to mean “bad”, he or she is engaged into criticizing. Direct form of expression may elicit all sorts of unwelcoming things, such as reactance from an angry hearer. In contrast indirect expressions, e.g. “not good”, entails a different story: by making hearer work out the implicature from the ambiguity of the utterance, the speaker manage to make the hearer not only recognize the content of the utterance, i.e. “bad”, but also his or her additional intention (“I could have speak it directly, but I *don’t*”). On the hearer’s part, this recognition presumably indicates that the speaker recognize his or her reaction and feeling, thus pacifying potential tense interpersonal relationships.

This can be generalized as verbal politeness^{4, 7, 14 & 27}. According to Brown⁴, social convention in general constrains how people communicate with each other and *face* is the self-image which binds one's own self with what one appears and behaves. People are motivated to save and maintain their face but situations where one wants to make criticism is face-threatening for the speaker. As a result direct affirmation of negative content like "bad" is avoided while indirect expression, e.g. "not good" is favored as a compromise between face-saving and blame—two components of Grice's M-intended effect.

To summarize, consistent with Horn¹⁴, the theorem behind the equivalence between "not good" and "bad" lies in the idea that certain pragmatic factors license the contrary to be used as contradictory. The leap is possible due to the relative ambiguity of the negative statement—which motivates the hearer to fill in the information from somewhere else in the context. And by making the hearer work in this way, the speaker is able to make the hearer realize what is conveyed as well as his or her intention of politeness. Thereby a contradictory reading (i.e. bad) of "not good" is licensed.

4. Not-Bad Versus Good: Anomaly And Negativity

Turning to the question why "not bad" is harder to be read as "good", the same story of politeness could still hold; to call somebody good is to perform a speech act of praise²⁷, i.e. to rank something in the scale of assessment or evaluation. So in terms of "you are good", if the speaker really believes the hearer is good, he or she should say it out directly as by doing so he or she can maximize his or her positive face. There's no reason, according to politeness theory, to "hold" back direct expression in such scenario.

To further clarify, consider the example used in Brown⁴:

- (a). John's no friend of mine. (John's an enemy)
- (b). John's no enemy of mine. (Not equivalent as "John's my best friend").

Here one can observe the similar asymmetry as in our puzzle; while the negative reading of (a) can be explained as outlined in the previous section, (b)'s case is quite different: politeness deprives the motivation behind indirect expression. What follows is that if the speaker really believes John is a friend (good), he or she should use direct affirmation rather than indirect negation.

However this is just the response to *why* question, whether it is true or not depends, to some extent, on the resolution of *how* question. If the implicature-generating mechanism is the same in "not good" and "not bad", "not bad" *can* also convey "good"; the difference between negated negative and affirmed positive will be reduced to the additional M-intended effect uniquely conveyed by the former. And if such M-intended effect is of utility, the plausibility of the politeness approach to the asymmetry will be problematic.

4.1. Markedness And Informativeness Revisited.

In a sense, to question whether the negation to positive and negative attributes, like "good" and "bad", generates different implicature is to question how the two differ in some general way. One relevant concept, I think is *markedness*: Linguists and pragmatists (Horn¹⁴ etc.) tend to characterize antonyms into marked and unmarked member: For a pair of binary antonyms, the unmarked member is usually less specific, formally less complex, more likely to be positive in compared to the marked member. For our puzzle, positives like "good" is the unmarked member while negatives, the marked one. Though the concept of markedness is still controversial (see Murphy²¹, for example), such classification does shed light on the idea that, on lexicon level, antonyms could carry divergent implications, for example:

- a. How good is he?
- b. How bad is he?

"b" seems to uniquely imply that "he" is bad. Though it is clear, and framed as question, the two antonyms carry the same weights or contribute similarly to the literal meaning of the statement. This pattern is consistent with what we observed in our puzzle: it is more plausible to equate "bad" with "not good" than "good" with "not bad"—the latter is restricted within particular context. And if we grant the former that "bad" often functions the same as "not good", it

follows that “not bad” function at least similarly with “not not-good”. Thus “not bad” can be viewed as a problem of double negation where the syntax becomes extremely complex (i.e. more marked).

Applying the concept of “markedness” to our case of negated evaluations, negation is clearly marked as it is more complex and prolix. This can be shown when a sentence contains more than two negatives, comprehension suffers a large decrement (Sherman²⁸).

In terms of implicature, the markedness of lexicon is likely to play a role. This can be seen in the way we express the neutral evaluation: “you are not good, but you are not bad, either.” According to Neo-Gricean framework, the first half of the statement (“not good”) generates the implicature (“bad”) which is neutralized by the second half of the statement (“not bad”). In this sense, the order of “good” and “bad” is fixed; alternatively, it appears unnecessary to add “but you are not good, either” after “you are not bad” to signal a neutral evaluation, i.e. “you are not bad” does not have implicature of “good” which should be cancelled.

Horn¹⁴ proposed Division of Pragmatic Labor to account for such use of longer and more marked expression: it signals that the speaker was not in a position to employ the simpler version felicitously. Saying “you are not bad” indicates the speaker cannot say the same thing in an otherwise brief and less marked manner (for our puzzle, affirmation) felicitously. To better understand what “felicitously” means here, let’s roughly put forward three possibilities involved in the child-parent scenario.

- a. The child is good.
- b. The child is neither bad nor good.
- c. The child is bad.

If condition a is true, it can be described by “you are good” (i.e. the principle of informativeness and relevance, if the child is good, say it out); if condition b is true, it can be stated as “you are not good, but not bad either” or something alike. If the fact turns out to be c, one can say “you are bad” or due to face-saving, “you are not good”. Thus it can be seen, under normal conditions where the felicitous way of description is described, the statement “you are not bad” is useless. It follows, by rationale, the statement is only supposed to work under abnormal conditions where due to some reasons the above three ways of description are not what they are supposed to do. For example, for two best friends, the necessity of face-saving is weakened by the close interpersonal relationships, thereby licensing the abnormal description “you are not bad” as an alternative of “you are good”. However even in this case, the close friendship is the necessary condition for the success of “not bad” to replace “good”; in other words, “not bad” as “good” occurs in more well-constructed scenarios—its use as “good” is more restrained in comparison to “not good” as “bad”.

To summarize, “not bad” follows a different path from the “not-good” discussed before. There appears to be additional implicature overriding the process out of the motivation to dispel vagueness (i.e. the implicature enables us to figure “bad” out of “not good”). This is captured in the second part of Levinson’s¹⁹ I-principle “unless the speaker has broken the maxim of minimization by using a marked or prolix expression”. Or phrased in specific, the M-Principle: “Indicate an abnormal, non-stereotypical situation by using marked expressions that contrast with those you would use to describe the corresponding normal, stereotypical situation.”¹⁹ In other words, upon hearing “not bad”, the hearer is activated with a particular way of thinking: “due to convention, ‘not bad’ is not used in normal situations, there must be something atypical in the scenario the speaker wants me to see”. Such thought or presumption bias the mere information seeking implicature brought up by negation alone.

4.2. Asymmetry: The Uniqueness Of Negation.

From Neo-Gricean perspective, the implicature generation is asymmetrical in that negated negative has unique implicature indicating abnormal situations. Thus the asymmetry in negated positive and negated negative can be a function of both politeness and the cooperative nature of Neo-Gricean principles—the speaker should provide sufficient and necessary information for communication. So far so good. However as I would argue below, this account is not adequate as the asymmetry is much more complex.

For the first, the asymmetrical use of “not good” and “not bad” seems to be too natural to be a mere result of social convention as outlined before. Even if the subject is switched to “I” which deprives the face-saving concern (politeness), the negative reading for “not good” remains stronger than other candidates while for “not bad”, the situation hardly changes though the positivity bias, to maximize one’s own face is somewhat removed.

Secondly, Davison⁸ doubted whether politeness is a sufficient and necessary condition of indirect speech act by pointing out that politeness is a permanent attribute of individuals and those who are attributed “polite” do not need to use indirect speech act exclusively or in all situations and utterance can be said politely without using negation at

all. This brought us to the one of the core question of this paper—why negation? Why not use the affirmative alternative?

To answer this question, one needs to establish the uniqueness in the *function* of negation and how it is related to the ambiguity of negation. Unfortunately An ultimate answer to this question beyond the scope of this paper. Nevertheless, what I can say at the moment is that this is a multi-disciplinary issue rather than what is based on bare politeness.

For psychology, the asymmetry between positive and negative affect has been well-documented in empirical setting^{2, 18 & 23}, across a broad range of topics like close-interpersonal relationships, learning, moral judgment and even self; Baumeister² go as far as suggesting that there is primacy of negative affect—negativity prevails positivity, that is, bad is stronger than good. People seems to care more about negative information rather than its positive counterpart; negative stimuli seems to have greater informational value than positive ones⁹. It can be explained from an evolutionary perspective: people suffer more due to ignorance of harmful negative stimuli—if one fails to notice some potential reward, he or she may still does fine. But if one ignores potential threat, one will be in direct trouble. Thus it is adaptive to emphasize negativity, which may account for the reason why people have a more latitude in reading a literally vague statement (e.g. not-A) as positive.

Finally Givón¹¹ related the markedness of antonyms to ontology: Suppose in a universe, one point is marked by one adjective, while the rest dozens are marked by the adjective's opposite. In a sense the one point gets singled out from the background. Since it is economical to assign the single one as having the property while the perceptual ground as the not having it, the unmarked member of the antonymic pairs are always assigned a positive value and vice versa for the marked member. For our puzzle, to state “you are not good” is to negate the existence of the unmarked member (i.e. positive value) and thus to negate the single one out in the supposed ontological universe while “you are not bad” negates the perceptual ground—the failure of reading “good” out of “not bad” can result from the difficulties in negating the whole background to reach the only single one (i.e. the good).

5. Conclusion

In this paper I mainly discuss two questions related to negated adjectives—how are they interpreted as their affirmative counterparts? And why are they preferred to affirmative in some contexts?

For the *how* question, I provide a tentative sketch from Neo-Gricean framework and show how one can read affirmative out of vague negative in some cases (e.g. “not good”) but not others (e.g. “not others”). I am not intended to claim this is the ultimate answer, as there are certainly other approaches which is not covered by the paper, like Bidirectional Optimality Theory²⁹; The scalar structure outlined is also questionable; The idea behind the whole approach, is that the affirmative reading “bad” is pragmatically strengthened out of the vague negative “not good” while the same process is compromised in negated negatives, like “not bad”. On the contrary, Krifka¹⁷ proposed an alternative approach where antonyms like “good” and “bad” are treated as contradictory rather than contrary, i.e. “not good” = “bad”. The neutral condition and the asymmetry in our puzzle, according to this approach, is the result of pragmatically weakening of the contradictory antonym pairs. To figure out which approach is better is beyond this paper. Nevertheless, I hope this sketch will provide a useful summary of Neo-Gricean account for future research.

For the *why* question, though my discussion throughout this paper is based on Neo-Gricean model which assumes conversation processing, including implicature is rule-based (e.g. Horn or Levinson's principles), in this section I do suggest it is not the whole story; factors like cognition could also be uniquely associated with negation which may lead to the asymmetry delineated in the puzzle. This does open interesting alternative approach, which viewing the whole process as cognitive or driven by some learned mental association. Some may label the later as connectivist, with Relevance Theory as exemplary^{31, 32}. Maybe a hybrid model between this and the approach outlined in the paper can capture more in terms of the puzzle. Anyway all I want to say in the present stage is that a complete answer to why sometimes negated positive do not trigger the implicature of negated negative, could cover a broad scope of disciplines beyond politeness, from ontology to psychology.

In the end, I hope this paper could provide a good basis for further research in the field of negation and understatement—I outlined tentative solutions, but there are more questions awaiting; an advance can thereby be expected in our understanding of human communication and cognition from the observed very asymmetrical phenomena of negated evaluations.

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