

Telling truths or Titanic tales: The interrelatedness of Gricean maxims

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1.0 Introduction

This paper argues that when inexperienced writers flout the *quality* maxim of H. P. Grice's (1975) cooperative principle, the result is a destabilization of the fulfillment of the maxims of *quantity*, *relation*, and *manner*. It further argues that, when presented with the task of detecting falsification in writing, evaluators use adherence to Grice's maxims to assist them in their judgments regarding the veracity of writing.

2.0 Literature review

This study is an extension of the theoretical framework of H. P. Grice (1975), who claimed that the overriding principle in conversation is a *cooperative principle*, from which follow four categories of maxims concerning quantity, quality, relation, and manner. The maxim of quantity states that conversants will make their contributions only as informative as is required. The maxim of quality, intentionally flouted in this study, essentially states an expectation that contributions will be truthful. The maxim of relation, further developed by Sperber & Wilson (1986), is solely a mandate to be relevant. Finally, the maxim of manner requires the speaker to avoid obscure, ambiguous, indirect and disorderly speech. Since Grice's claims were made concerning verbal communication, the question is left open whether the usefulness of these maxims may extend to a broader transactional realm of communicative behavior, specifically written narrative.

Although Grice (1975) made some robust claims concerning ideal exchanges, he made fewer assertions regarding those cases where maxims are violated, flouted, exploited, or ignored. Grice was clearly aware that speakers do not always act in accordance with the maxims, but claimed that the maxims supply the framework within

which coherence and relevance is sought; therefore, deliberate flouting of the maxims does not refute the argument for a cooperative principle, but rather confirms it. What still remains unclear is how and if the violation of a particular maxim affects the fulfillment of the remaining maxims.

A further development of Grice's work has been done by D. Sperber & D. Wilson (1986). Their observation that Grice's maxim of relation is vague and undefined prompted them to explore how implicature could be better understood. Sperber & Wilson labeled Grice's relation maxim a "dressed-up appeal to intuition" (1986:36), and developed their own description of how ostensive-inferential communication works, grounded solely on the principle of relevance. For Sperber & Wilson (1986), the interpretation of *relevance* in a human interaction explains how interactors use complex inferences to assess each other's informative intentions.

Even if Sperber & Wilson's (1986) argument for the primacy of relevance as a hermeneutical principle is granted, the question raised above still remains. How will the violation of a particular maxim affect the fulfillment of the remaining maxims, including the maxim of relevance? A full answer to this question is beyond the scope of the present study, but this study does begin to move towards an answer for at least one aspect of that question--how a violation of the quality maxim may impact the fulfillment of the other maxims in a communicative interaction.

There is a growing body of literature which looks at falsification and interpersonal deception. Buller, Burgoon, White, & Ebesu (1994), for example, have examined the impact of falsification, receiver suspicion, receiver expertise, and relational familiarity on the strategic behaviors of those falsifying, equivocating, or concealing information. As in the study presented here, evaluators who were induced to be suspicious attempted to detect certain deceptive behaviors. In the Buller, et al., study (1994) observers interviewed subjects directly, which allowed many indicators to be considered which are not available in an evaluation of written communication. In conversation, observers may use nervousness, verbal disfluency, reduced eye-contact, restless motion, hesitancy, verbal dominance (assertiveness, attempts to gain the upper hand in conversation), vocal

quality, and other non-verbal cues to detect deception. None of these cues are present in written communication.

Ebesu & Miller (1994) identified several strategic cues that differentiate falsifiers from truth-tellers. Included in their list was the claim that falsifiers speak for a shorter length of time, encode more indirect messages, use more group references and fewer self-references than truth-tellers. Their concern, like the previous study mentioned (Buller, Burgoon, White, & Ebesu 1994), was not written communication, but the cues they isolated are not unique to oral interaction.

3.0 Research Questions

From the preceding discussion, questions remain whether Grice's maxims (1975) may be useful constraints for understanding written narratives and how the violation of the quality maxim may impact the fulfillment of the other maxims. The literature on interpersonal deception suggests certain cues may help distinguish falsifiers from truth-tellers. These concerns have led to the following research questions:

- 3.1 How does flouting the maxim of quality in written communication affect fulfillment of the maxims of quantity, relation and manner?
- 3.2 Since deception is a complex task, will more experienced writers be more proficient at accomplishing it than inexperienced writers?
- 3.3 What impact does the flouting of the other maxims have in regards to readers' judgments of adherence to the *quality* maxim?

4.0 Hypotheses

Sperber & Wilson's (1986) theory of relevance is sometimes seen as both a consolidation of Grice's (1975) conversational maxims and a further development of the

technical concept of 'relevance.' For Sperber & Wilson the maxim of relation is primary. This paper does not dispute that relevance may have a certain primacy in the processing an utterance's meaning, but the hypotheses forwarded here assume that it is the maxim of *quality*, not *relation*, that unifies a communicative presentation. Once the maxim of quality is compromised, speakers have undermined their basis to judge the quantity, manner, or relation of their utterances. This destabilization does not necessarily occur by a violation of the other maxims. For example, the maxim of manner may be violated by obscure references, but the veracity of the statement may still be clear in the mind of the speaker/writer. The maxim of relevance may be flouted, but the speaker/writer will not necessarily be forced into a position where he believes his statement lacks evidence. In contrast, if writers are forced to violate the quality maxim (as will be seen in the present study), they no longer have a solid basis to evaluate whether their contribution is as informative, direct, or relevant as is required.

When the quality maxim is violated, complete adherence to the other maxims is difficult. In such situations, adherence to the maxims of quantity, relation, and manner may be simulated by those who possess better knowledge of the structural features of the target genre, but we would expect less experienced writers to be less adept at simulating those maxims.

Hypothesis 1: Inexperienced writers portraying a non-factual event as true will be briefer, less relevant, less direct and more vague than writers of similar abilities attempting to faithfully portray a factual account.

A second hypothesis may be forwarded if we view the connection between maxims from the perspective of the reader. In those situations where readers are given reason to suspect the quality maxim has been violated, lacking other incontrovertible evidence, we would expect them to evaluate the truthfulness of accounts on the basis of how well the writing reflects normal communicative behavior, i.e., the cooperative principle.

Hypothesis 2: Judgments made regarding the veracity of writing will reflect the degree to which writers adhere the maxims of *quantity*, *relevance*, and *manner*.

5.0 Methodology

5.1 Subjects

Twenty-three students enrolled in English 101 course and twenty students enrolled in English 102 at the University of South Carolina participated in this study. All of the English 102 students had successfully completed English 101 or a comparable course before their enrollment in English 102. The English 101 group was more a bit more heterogeneous; some of these students were repeating the course following a failed first attempt at successful completion, some were incoming Freshmen who had not yet had the opportunity to previously take the course. All of the English 101 students were either less experienced or less accomplished writers than the English 102 group.

5.2.1 Collection of writing sample data

The data for this study were collected by having students in a classroom setting write spontaneous essays on the topic of, "The night I saw the movie, "Titanic." No time was provided for outlining or drafting of the essays before writing. Of these students, 22 had previously seen the movie, the other 22 had not; therefore, one-half of the subjects would be engaged in truth-telling, and one-half would be attempting to deceive. Students were told that it was not necessary for them to focus on details of the film itself, and that they could satisfy the requirement by discussing the evening events surrounding their night at the movies.

5.2.2 Self-reported writing strategy information

Following the collection of essays, students were asked to write a short account of what organizational or compositional strategies they used to write their essays

5.2.3 Collection of evaluation data

During the week following the collection of the above essays, three evaluators read each of the essays to attempt to predict which stories were true and which were false. Evaluations were simultaneously done in a common location, without discussion between evaluators, and required two hours and fifteen minutes to complete. Where raters differed in their decision regarding the veracity of an essay, the measure of the two raters agreeing was taken for the measure of deception detection success. Estimates of interrater reliability in each essay category for all three raters are reported in Table 1 below:

Table 1: Interrater reliability

Essays	Percent agreement
English 101	.83 (19 of 23 essays)
English 102	.70 (14 of 20 essays)

5.3 Data analysis

The data analysis in this study had three aims: First, to determine if there was a quantifiable difference between falsified and factual written accounts in the following measures:

1. Quantity = length of essays
2. Relation = presence/absence of relevance violations
3. Manner = presence/absence of ambiguity or vague statements, and directness regarding movie specific information.

Second, to investigate the possibility that there is a correlation between the above measures and judgments of veracity on the part of the reader. Finally, the study was intended to provide information for a qualitative analysis of truth-telling and falsification. The initial step in the analysis was to determine the patterns and choices made by the English 101 versus English 102 group and the truth-telling versus falsifying groups.

6.0 Results and Discussion

6.1 Deception detection success

The process used for deception detection was discussed above in 5.2.3. English 102 students produced 20 of the 43 essays. Evaluators were able to correctly identify 9 of these, or 45%. In contrast, of the 23 essays produced by English 101 students, evaluators correctly identified 15, or 65%. These results are shown graphically in figure 1:

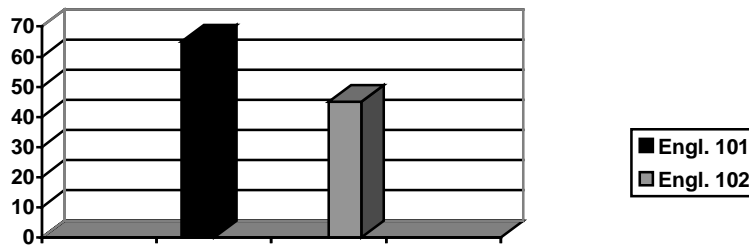


Figure 1: % of Deception Detection Success

These results show that inexperienced writers will be detected in their attempts to falsify far more frequently than experienced writers. Further results show differences between essays correctly evaluated as truth-telling and those correctly judged to be falsifications.

6.2.1 Essay length analysis

The results of an examination of the length of essays in # of words are tabulated in Table 2 and graphically shown in Figure 2:

Table 2: Average, mean, and median # of words by essay type and group

Number of Words	Engl 101 - TruthTell	Engl 101 - Falsified	Engl 102 - TruthTell	Engl 102 - Falsified	TruthTell - Combined	Falsified - Combined
Avg.	209.90	205.73	230.30	173.90	220.57	190.57
Median	208.83	203.76	229.00	171.81	218	185
Mean	208.18	202.22	227.67	172.88	214.51	190.51

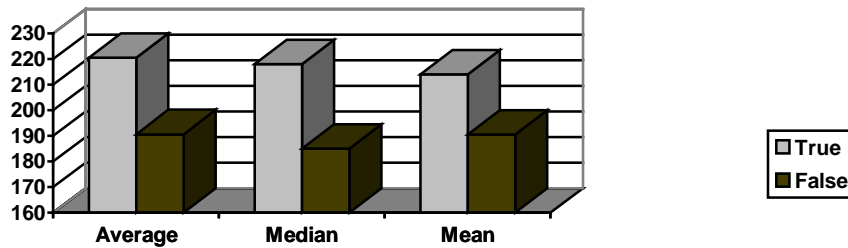


Figure 2: Average, mean, and median # of words by essay type

Two observations arise from a consideration of length in isolation: First, brevity is more apparent in the falsified essays than in the truth-telling accounts. Second, this factor alone is not sufficient to predict how accounts will be evaluated. Our results show that there was greater variation in length in the English 102 essays, but deception in the 102 essays was less reliably detected than in the 101 accounts.

6.2.2 Maxim violations

Violations of all three maxims (quantity, relation, & manner) must be considered together in order to be predictive of how an essay will be evaluated. To accomplish this, some descriptive definitions are necessary. *Quantity* violations refer to length in number of words, with a violation occurring if an account was shorter than the mean by more than 10%, or 193 words.

Relation and manner violations are somewhat harder to define. For our purposes here, a violation of the *relation* maxim occurred if the writer included material that could not be easily construed to be relevant to a description of an evening's attendance at a movie. For example, one student mentioned the name of his date for the movie and then continued by talking about the woman's employment situation and coworkers. In another example, the student discussed a Christmas party preceding the movie event, and continued with details concerning the clean up after the party and the specific clothes that his sisters changed into before going to the movie. *Manner* violations in this analysis refer to the presence of vague statements and indirectness regarding movie specific information. Of the essays that violated this maxim, many violated it in more than one way; for example, fourteen essays delayed discussion of the movie itself until the last 1-3 sentences of the essay, and then provided only a vague statement such as, "The movie was interesting," or "Three hours later I had a wet shoulder." Essays were considered indirect if they delayed discussion of the movie itself (arguably the most relevant factor in a trip to the movies) to more than three-quarters of the way through the essay. Table 3 displays the raw number of maxim violations by category.

Table 3: # of violations of quantity, relation, & manner

Violation	101-F	102-F	Total - F	101-T	102-T	Total-T	Total All
Quantity	7	5	12	3	2	5	17
Relation	4	3	7	2	3	5	12
Manner	7	7	14	4	3	7	21

The results of Table 3 show that the manner maxim is violated more frequently than the maxim of quantity, and that both of these maxims are more frequently violated than the maxim of relation. More importantly, the results show that falsified accounts violated the maxims of quantity, relation, and manner far more frequently than truth-telling accounts. The falsified accounts were responsible for 71% of the quantity violations, 58% of the relation violations, and 67% of manner violations.

6.2.3 Maxim violation use in evaluative judgments

The second hypothesis for this study predicted that evaluators would judge the veracity of essays using the maxims of quantity, relevance, and manner. Table 4 shows how the presence of violations of the maxims of quantity, relevance, and manner impacted evaluators' choices.

Table 4: # of violation types found as a measure of evaluators' judgments

# of essays in which evaluators found:	101-F	102-F	Total-F	101-T	102-T	Total-T
<2 violation types, and judged to be true	6	3	9	6	10	16
≥2 violation types, and judged to be false	5	5	10	2	2	4

The critical insight revealed by Table 4 is that evaluators' judgments regarding the truth of an essay strongly correlate to the number of maxim violations found in the text. Truth-telling essays violated Gricean maxims less frequently than falsified accounts, which also meant that evaluators correctly identified truthful accounts more frequently than falsified ones. English 102 essays, whether falsified or truth-telling, violated the maxims the least, demonstrating that writing experience enhances ability to manipulate the maxims. An important corollary to the above insight is that the mistakes evaluators made in their judgments of essays frequently corresponded to mistakes students made in their conformity to the Gricean maxims. Students' attempts to truthfully relate an actual account were still judged to be deceptive if they did not conform to expected norms within the cooperative principle. Likewise, students' attempts to persuasively convince with their fictional accounts also failed if they two or more violation types.

6.2.4 Writing strategy data

Although a quantitative analysis of writing strategy data will not be reported here, a few qualitative remarks are in order. A number of distinct writing strategies were reported by those students who presented falsified accounts as factual. These are, perhaps, best summarized by their own words:

Strategy 1: "Instead of focusing on the actual movie, I focused on what happened before I got to the movie."

Strategy 1 normally led to a violation of the manner maxim, but it was successful if no other violations were present. This was also the strategy of the majority of failed attempts, suggesting that an approach which begins with a violation of a maxim is more difficult to successfully manage than one that does not.

Strategy 2: "I simply remembered some other trips to the movies. I took these details and substituted them."

When Strategy 2 was used, evaluators had a much more difficult time identifying falsification. These accounts normally did not violate quantity or relation maxims, but were frequently vague and indirect about specific movie details. As above, this strategy succeeded if no other violations were present.

Strategy 3: "I basically took what I had heard on TV and radio by movie reviews and critics and put that information into my paper."

If Strategy 3 was used in combination with Strategy 2, deception detection was not possible. Used alone, it sometimes violated maxims of quantity and relation, but there were no instances in which it violated the maxim of manner.

Strategy 4: "...only one of my friends had seen it yet. I took all the emotion she felt when she told me about the movie and used it to write my paper."

Of the four strategies reported here, Strategy 4 was the least frequent. It was successful only in combination with other strategies. It is unclear why an accurate recounting of an emotional response was less persuasive to evaluators than an accurate recounting of plot details, but one suggestion may be that emotional responses are more generalized than plots and less likely to be seen as positive evidence of the manner maxim. Further consideration of this strategy, as well as the other identified strategies, may be a fruitful direction for future research.

7.0 Summary and Conclusion

This paper argued for two hypotheses, both of which applied the theoretical construct of Grice's (1975) cooperative principle to the task of detecting falsification in writing. The first hypothesis was weakly confirmed, i.e., that inexperienced writers portraying a non-factual event as true would violate the maxims of quantity, relation, and manner more than writers of similar abilities attempting to faithfully portray a factual account. English 101 students did violate more maxims than English 102 students, but the rate at which they did this became significant only if the maxim-type violations were considered in relation to the total number of type violations in an essay.

The second hypothesis, that evaluators would judge writing in keeping with the level of adherence the maxims of quantity, relevance, and manner, was strongly supported. Evaluators who had reasons to question the maxim of quality, consistently regarded essays as falsifications if they violated two or more of the other maxims. Conversely, both truth-telling and falsifying essays were regarded as factual if they contained less than two types of maxim violations in them.

In terms of the research questions initially posed, the results of this study do suggest that flouting the maxim of quality in written communication may affect fulfillment of the maxims, particularly among inexperienced writers. The results also show that more experienced writers are more proficient at genre management, as revealed by adherence to the maxims, than inexperienced writers. Finally, the study provides

clear evidence that the flouting of the maxims of quantity, relation and manner will have a direct impact on the reader's judgment of adherence to the quality maxim.

Beyond the findings reported here, this study has general theoretical implications for those engaged in discourse studies or studies in interpersonal deception. Although we might be rightfully hesitant to make unverified methodological conclusions based on theoretical constructs, the results here also have implications for those engaged in writing instruction.

For discourse studies researchers, these findings may provide renewed interest in Grice's (1975) original insights made over two decades ago. More research into the interaction between maxims may advance our understanding of how interactors formulate judgments, not only concerning truthfulness, but also concerning coherence and meaning. This study identified some consistent patterns, but the results of such a limited data sampling beg for further, more extended study.

A second theoretical implication for discourse studies is that it may be useful to reevaluate the primacy of the relevance principle in human interaction. Although *Relevance Theory* has furthered our understanding of how the complex task of inferential communication takes place, further scrutiny should be done on the conditional requirements that precede appraising meaning through the mechanism of relevance. This study questioned how judgments concerning the quality of an utterance may impact how the relevance of a written token is assessed, and vice versa. Similar questions may be raised about the nature of the relationships between relevance and quantity, or relevance and manner. As mentioned earlier, the nature of the quality maxim may makes it most likely to have a significant interaction with the other maxims, but this does not imply the interactions between the other maxims are not significant in their own right.

A third implication is for those engaged in interpersonal deception studies or social psychology. Although the concerns of researchers in this field are normally not restricted to written tokens, there is clear evidence for the value of collaboration between those who focus on written text and those who engage in the broader interests of interpersonal deception. This present study derived its categories from discourse studies, but the choice of those categories was informed by research in interpersonal deception.

The results of this study, in turn, both support and further the claims already made by interpersonal deception researchers.

The methodological implications of this study for writers and writing instructors may already be clear. Writers of non-fictional accounts do not want the credibility of their writing questioned, and this study begins to isolate some of the factors that may enter into readers' credibility judgments. This study should provide support and encouragement for those instructors engaged in genre-based instruction. The results here show that even a single semester of writing instruction/experience may produce significant results in students' writing. What specific methodologies may be most effective for teaching students how to successfully manipulate the maxims can not be inferred from this study, but the study does indicate that research into that question may benefit writing instruction.

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Appendix

Sample Essay #1 (Truth-telling account, evaluated as true):

The night I saw Titanic I went out to dinner with my boyfriend and his family before the movie. We all entered the theater with at least 50 to 100 other people, which isn't surprising because the movie had been sold out for the few short weeks it had been out. I sat with Robbie, my boyfriend, about 3 rows back, so that we could be close to the screen and hopefully right in the movie. The movie began with scenes in old footage of the Titanic leaving the port in Southampton. Then it goes to a ship out in the Atlantic that is searching for Titanic. The rest of the movie was through the memories of Rose, a passenger of Titanic more than 80 years before. As old as she is, she remembers everything, including her new found love Jack. She tells of how they met and fell in love and of the tragedy of the sinking. Through her losing Jack, it helped show just how horrible the sinking was for people to lose their loved ones without warning. As the ship began sinking and some knew their doom, well, that's when I began to cry. When the mother tells the children a story so they'll go to sleep, the old couple stay together while their room fills with water and the captain secures himself on the bridge, I cried. The worst and most dramatic was when Rose had to let go of Jack to save her own life. I could hear everyone crying or see them wiping away tears. When the old Rose threw the diamond off the ship, everyone gasped in amazement. Finally, at the end, when we left I could see people still with tears saying, "That was so sad," or "That's the best movie I've ever seen." So Titanic definitely struck eternal blows in everyone's hearts, just as it did more than 80 years ago. (320 words)

Sample Essay #2 (Truth-telling account, evaluated as false):

It was dark and rainy outside, as it had been for the past couple of nights prior to that one. My girlfriend and I had decided we would take in a movie and chose to see, "The

"Titanic." It was all the critics were talking about, filling the newspapers, magazines, and televisions with how great it was. Apparently, everyone else in town decided the same as we drove in circles for quite some time in search for a parking spot. Not only was the rain coming down in sheets, but it was quite cold out and I would rather not have my date and I walk too far to get inside the theater. I stopped the car and we paused, hoping that maybe the rain would break for a brief moment. Realizing the chances of such a miracle occurring, we counted to three in unison, opened car doors, and slammed them shut as we made a mad dash to the cinema door. (162 words)

Sample Essay #3 (Falsifying account, judged to be false)

It was Friday night, and I had decided to go out. I had called my cousin to pick me up, so that we could go to the movies. We made it a ritual to go out together at least every other week. We hadn't been out in a while, so this was a treat. When we finally arrived at the theater we were trying to figure out which movie to see. Every movie I wanted to see, she had already seen. So, after arguing for a minute or two we finally decided on "The Titanic." I had seen the previews on TV various times, so I knew what to expect. The movie was really touching. I could not get over the fact that all of those people died. My cousin and I left the movie teary-eyed. It was sad. While leaving the theatre I glanced at my watch. I was taken aback. This movie lasted for three hours. I thought to myself, "Well at least I got my money's worth." (170 words)

Sample Essay #4 (Falsifying account, judged to be true)

As my boyfriend and I sat down in the dark movie theater, we realized that we had only missed the previews. The movie came on, and from that point I was captivated and mesmerized. The size of the ship was like none I had seen before. As the camera moved back and forth from top to bottom, I began to feel the fear and anguish as the people who died on that majestic ship must have felt. The illicit love affair and hidden escapades

made my boyfriend a little frisky, but I pushed him aside whispering loudly, "Not right now, this is a good part." Turning to the side and shoving my hand a little deeper into the large bucket of popcorn, I once again became entranced. I wondered if the people on that ship knew what fate was in store for them, would they still be so nonchalant? The movie was directed and produced with great abilities. The effects, sound, and costume almost made me feel apart of the cast. (171

words)