

The Roles of Politeness and Humor in the Asymmetry of Affect in Verbal Irony

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Four experiments were conducted to assess the roles of politeness and humor in the asymmetry of affect observed in verbal irony production. In Experiments 1 and 2, participants rated different replies (ironic, literal, or “no response”) made to hypothetical scenarios for their politeness and humor, respectively. Participants in Experiment 3 were given the response options rated in the 2 previous experiments and were asked which response they would be most likely to make in each situation. Experiment 4 was a replication of Experiment 3 with the no-response option removed. Results indicated that humor, but not politeness, was a significant factor in a speaker’s decision to use verbal irony. These results raise some important questions for existing theories concerned with the roles of politeness and humor in the production of irony.

One of the most consistent observations across the verbal irony literature is a phenomenon Clark and Gerrig (1984) called the *asymmetry of affect*. This refers to data indicating that ironic criticisms (positively phrased ironic utterances such as ironically saying, “That’s a nice shirt” to someone who is wearing an ugly shirt) are easier to interpret as ironic than ironic compliments (negatively phrased ironic utterances such as ironically saying, “That’s an ugly shirt” to someone who is

wearing a stylish shirt; e.g., Colston, 2000; Gibbs, 2000; Hancock, 2002; Hancock, Dunham, & Purdy, 2000; Jorgenson, Miller, & Sperber, 1984; Kreuz, 1996; Kreuz & Glucksberg, 1989; Kumon-Nakamura, Glucksberg, & Brown, 1995; Sperber, 1984; Sperber & Wilson, 1981, 1986).

Following a long and rich tradition of theorizing about the nature of irony comprehension (e.g., Clark & Gerrig, 1984; Grice, 1975, 1978; Kreuz & Glucksberg, 1989; Sperber, 1984; Sperber & Wilson, 1981, 1986), Kumon-Nakamura et al. (1995) outlined a comprehensive account of irony described as the *allusional pretense model*. According to their account, the asymmetry of affect phenomenon occurs because our classification of utterances as ironic depends on their allusion to a violation of some previous utterance, thought, expectation, or social norm. Borrowing from the Pollyanna hypothesis initially proposed by Boucher and Osgood (1969), Kumon-Nakamura et al. assumed that humans tend to have positive expectations about the world in general and, given this assumption, they pointed out that it is more likely for a violated expectation to be positive (providing an opportunity for an ironic criticism) than to be negative (providing an opportunity for an ironic compliment). Variations on this basic explanation for the asymmetry of affect in verbal irony have been called the *social norm hypothesis* (Gibbs, 1986).

The social norm hypothesis has typically been tested in the context of text-based scenarios that manipulate positive and negative expectations; thus, participants have equal opportunities to encounter or produce ironic criticisms and compliments (e.g., Hancock, 2002; Kreuz & Glucksberg, 1989; Kumon-Nakamura et al., 1995). Using these textoid procedures, the predictions of the social norm hypothesis have also generally been confirmed with respect to irony comprehension (Kreuz & Glucksberg, 1989; Kumon-Nakamura et al., 1995) and to a lesser extent with respect to irony production (Hancock, 2002).

Although these studies (Hancock, 2002; Kreuz & Glucksberg, 1989; Kumon-Nakamura et al., 1995) confirm the importance of expectations in the comprehension and production of verbal irony, they also occasionally demonstrate that the asymmetry of affect is observed when expectations are controlled (e.g., Hancock, 2002)—that is, even when specific negative expectations are in place so that a positive event will violate those expectations (and hence serve as an opportunity to produce irony), ironic remarks are still produced at a lower frequency than in violated-expectations criticism conditions. The allusional pretense theory does not predict a difference between these two contexts because both satisfy the condition of violating some expectation or norm. These observations suggest there may be other factors also contributing to the asymmetry of affect that have not been accounted for by existing theoretical views.

To deal with such exceptions, more recent research has begun to extend the analysis of irony comprehension and production by focusing on the discourse goals that might motivate ironic production. Two factors that have received recent attention are politeness and humor (e.g., Dews, Kaplan, & Winner, 1995; Dews &

Winner, 1995; Dews et al., 1996; Jorgenson, 1996; Kreuz, Long, & Church, 1991; Roberts & Kreuz, 1994).

Consider politeness. Note first that the general expectation of positivity proposed by Kumon-Nakamura et al. (1995) is not limited to our implicit expectations and social norms but is also reflected in our language. Lexicons include more numerous and diverse evaluatively positive (E+) words than evaluatively negative (E-) words. E+ words also appear earlier in children's vocabulary than do E- words, and E+ words are used more often than E- words. These findings hold true across multiple languages and cultural groups; therefore, this positive language bias is thought to be a universal human tendency (Boucher & Osgood, 1969). As such, it is expected that people will speak positively and that it is polite to speak positively (Brown & Levinson, 1987). However, on many occasions speakers must say something negative and thus violate this social norm of politeness. This can lead to a loss of face, either for the speaker or the addressee (Brown & Levinson, 1987). Irony provides a mechanism for attenuating the detrimental effects of violating the politeness norm by using positive language (e.g., "That's a nice shirt") to convey a negative message (e.g., the shirt is ugly). Therefore, an ironic criticism is a less serious violation of the politeness norm than a literal criticism, which uses negative language. However, irony is only able to satisfy politeness goals when the intent of an utterance is critical; ironic compliments use negative language to convey a positive message. Ironic compliments may be seen as less polite than their literal counterparts because ironic compliments contradict the politeness norm. Accordingly, politeness goals predict that ironic criticisms should be produced more frequently and be more readily understood than ironic compliments. Note that this differential is in the same direction predicted by the social norm hypothesis, and that it also explains the asymmetry of affect (Hancock, 2002).

Congruent with these predictions, Dews and Winner (1995) proposed the *Tinge Hypothesis*, which states that the literal surface meaning of an ironic statement (e.g., "That's a nice shirt") is processed along with the intended meaning (e.g., the shirt is ugly), and "colors" the hearer's interpretation of the statement (i.e., ironic criticisms are tinged with positivity and ironic compliments are tinged with negativity). Several studies have confirmed the predictions that ironic criticisms are perceived as more polite than direct, literal criticisms and that ironic compliments are perceived as less polite than direct, literal compliments (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996).

It is important to note that the studies supporting the predictions of the *Tinge Hypothesis* are somewhat limited. First, they have only examined comprehension, and not production, of verbal irony. In addition, in the textoid procedures that have been employed, researchers typically require participants to consider statements that take either a literal or an ironic form. In more natural contexts, speakers and listeners typically have at least one other option: the option of saying nothing or

judging a nonresponsive option. Some implications of these two limitations are considered in more detail in the following experiments.

A second factor potentially implicated in a speaker's decision to employ the ironic form is humor (Roberts & Kreuz, 1994). Humor, like politeness, has been identified as a means for saving face in a potentially face-threatening situation (Brown & Levinson, 1987). Therefore, it would be beneficial for a speaker to be humorous when forced to make a critical assessment. Ironic remarks may derive humor from their discrepancy between what is said and what is meant (Long & Graesser, 1988). Because irony is considered humorous, an ironic criticism may defuse the seriousness or intensity of the negative message and, therefore, lessen the negative impact on the speaker–addressee relationship. Again, note that ironic compliments work against this process; the humor of an ironic compliment may decrease the intensity of the positive message and, therefore, increase the likelihood that the comment will have a negative impact on the speaker–addressee relationship. Accordingly, the use of humor predicts the same asymmetry of affect as the allusional pretense theory and politeness goals (i.e., ironic criticisms should be produced more frequently, and be more easily understood, than ironic compliments).

Several studies have provided empirical support for these assumptions. Participants have rated ironic criticisms as more humorous than literal criticisms (Dews et al., 1995; Dews et al., 1996) and have also listed humor as a goal of ironic speakers (Jorgenson, 1996; Kreuz et al., 1991; Roberts & Kreuz, 1994). The asymmetry of affect is also observed in humor ratings in that ironic criticisms have been rated as funnier than ironic compliments (Dews et al., 1995). Again, these studies have examined only the comprehension, and not the production, of verbal irony; they also have not provided the speaker with the opportunity to say nothing or the listener to judge a nonresponse option.

This series of experiments was designed to expand our understanding of the role politeness and humor might (or might not) play in irony; and, more specifically, their potential role in the asymmetry of affect phenomenon. To this end, a series of eight vignettes, each with two versions, was developed. One version of each scenario described an interaction between two people that set the stage for one speaker to make a final critical comment; the second version invited a final positive comment. In the criticism scenarios, the reader is presented with three final replies by the protagonist: an ironic criticism, a literal criticism, or a “no-response” option. An analogous set of positive responses is offered in the compliment scenarios. In the first experiment, we measured the politeness ratings for each of the three response options across the criticism and compliment scenarios; and, in a second experiment, we measured the humor ratings. A third experiment was designed in which participants were asked to indicate which of the three response options they would choose as a speaker in each of the scenarios. To more directly examine the impact of including the ecologically valid no-response option, the fourth experiment was a replication of the third with the no-response option removed. The ques-

tion of primary interest throughout these experiments was whether the politeness ratings and humor ratings established for each scenario in the prior experiments would predict a speaker's decision to employ the ironic form.

EXPERIMENT 1

Studies have consistently found that participants rate ironic criticisms as more polite than literal criticisms and that ironic compliments are rated as less polite than literal compliments (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996; Pexman & Olineck, 2002). As noted earlier, these findings are consistent with the Tinge Hypothesis developed by Dews and Winner and provide a viable explanation for the asymmetry of affect in the irony production data reported by Hancock (2002). However, note that the data implicating politeness as an explanation for the asymmetry of affect are based on procedures in which participants are given only two options to rate in each of the irony scenarios. More specifically, these procedures ask participants to rate only ironic or literal responses and ignore a third option available in most interactions: the option to say nothing. Note that saying nothing is constrained by the same politeness considerations as ironic and literal speech. Indeed, in situations that invite criticism and preclude the possibility of saying something "nice," conventional wisdom suggests it would be most polite to say nothing at all. Therefore, it is conceivable that the addition of a no-response option to the procedure may selectively attenuate any politeness advantage of ironic statements in contexts where a criticism is expected. If so, it becomes more difficult to argue that politeness considerations are driving the speaker's decision to produce an ironic criticism. If politeness were a speaker's pragmatic goal in a critical context, that goal would be poorly served by uttering an ironic criticism when the speaker has the alternative to say nothing. Conversely, the availability of a no-response option would not be expected to affect results in the context of a compliment opportunity. Conventional wisdom suggests it would, if anything, be considered impolite to say nothing when one has an opportunity to produce a compliment.

If the previous reasoning is correct, it is conceivable that results obtained in previous experimental procedures employed to assess the politeness of ironic and literal statements will not generalize to more typical situations in which speakers are more realistically portrayed as having the option of saying nothing. In this study, participants were asked to rate the politeness of all three of the previously described response options in the context of either an opportunity for criticism or compliment. The question of primary interest was whether, with the addition of a no-response option, our results would replicate the evidence for the Tinge Hypothesis previously reported (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996; Pexman & Olineck, 2002).

Method

Participants. Thirty-one undergraduate psychology students participated for extra course credit. Participants were primarily middle- to upper middle-class students in their 1st year of study at Dalhousie University, Canada. Participants were randomly assigned to one of two conditions (criticism or compliment).

Materials. Questionnaires consisted of eight scenarios. Each scenario described a person with whom the participants imagined themselves to have a close relationship (e.g., best friend, roommate, etc.). This person was described as having a given trait (e.g., athletic skill, cooking ability, etc.). The person then performed an act that invited an evaluative comment. Consider the following example:

You and your friend Dave both enjoy watching hockey, and Dave is also one of the best players on the university hockey team. Last week the two of you went to see a hockey game, and at intermission, Dave's seat number was drawn for a chance to shoot a puck from center ice. If he made the shot, he would win \$100. Dave tried, but he missed the goal by a mile. Please rate the politeness of each of the following possible reactions to Dave:

- (a) "Great shot, Dave."
- (b) "Wow, Dave, you suck."
- (c) You decide to say nothing about Dave's shot.

In one half of the questionnaires, the act was negative and invited a criticism; the other one half involved positive acts and invited a compliment. The scenarios in the criticism condition were the same as those in the compliment condition, except for the act performed at the end of each scenario. For instance, the equivalent compliment scenario to the previous criticism scenario follows:

You and your friend Dave both enjoy watching hockey, but Dave has never skated in his life. Last week the two of you went to see a hockey game, and at intermission, Dave's seat number was drawn for a chance to shoot a puck from center ice. If he made the shot, he would win \$100. Dave tried, and to everyone's surprise, he got it in. Please rate the politeness of each of the following possible reactions to Dave:

- (a) "Great shot, Dave."
- (b) "Wow, Dave, you suck."
- (c) You decide to say nothing about Dave's shot.

In addition, one half of the scenarios portrayed a positive trait, and one half provided a negative trait; trait polarity was counterbalanced across act polarity. This

resulted in an equal number of scenarios with both fulfilled (positive trait–positive act, negative trait–negative act) and violated (positive trait–negative act, negative trait–positive act) expectations (i.e., the first example involves violated positive trait–negative act expectations, and the second example involves violated negative trait–positive act expectations). However, pilot data revealed no differences on any measures across any of the expectation conditions; therefore, the results were collapsed across expectations for all analyses in these experiments. The questionnaires included both scenarios describing women and scenarios describing men.

Following each scenario, participants were asked to rate three response options for politeness: a literal statement, an ironic statement, and choosing to say nothing. The three responses were the same across criticism and compliment conditions so that an ironic criticism in the criticism condition served as a literal compliment in the compliment condition, and vice versa. Each response option was rated on a 7-point Likert scale ranging from 1 (*not at all polite*), 4 (*moderately polite*), to 7 (*very polite*).

Procedure. The majority of participants were tested in a single group at the beginning of an introductory psychology class. The remaining participants were individually tested. Students were given an informed consent form outlining the experiment to read and sign. They were then given the politeness questionnaire with instructions on the front page as follows:

In everyday social encounters, people react to different situations with varying degrees of politeness. Please read each of the following scenarios and rate the degree to which you think the response made by the person in the scenario was polite. A score of 7 indicates that the person's reaction was very polite, a score of 4 indicates a moderate level of politeness, and a score of 1 indicates that a person was not concerned with being polite.

After participants completed their questionnaires, they were debriefed.

Results and Discussion

For all results, F_1 and t_1 refer to analyses performed with participants as a random factor; and F_2 and t_2 refer to analyses performed with scenario items as a random factor. The results from the politeness questionnaires were subjected to a 2 (act polarity: criticism, compliment; between-subject) \times 3 (response type: ironic response, literal response, no response; within-subjects) repeated measures analysis of variance (ANOVA; see Table 1). Participants' politeness ratings differed across response type when participants were used as the random factor, $F_1(2, 58) = 26.68$, $p < .001$; $F_2(2, 28) < 1$, *ns*. An interaction between act polarity and response type

TABLE 1
 Politeness Ratings for Each Response Option in Experiment 1

<i>Act Polarity</i>	<i>Response Type</i>					
	<i>Ironic</i>		<i>Literal</i>		<i>No Response</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Criticism	3.53	1.14	3.30	0.60	5.13	1.12
Compliment	2.91	1.04	6.16	0.42	3.78	0.88

Note. Ratings were made on a 7-point scale ranging from 1 (*not at all polite*) to 7 (*very polite*).

was observed for both participants and items as random factors, $F_1(2, 58) = 52.54$, $p < .001$; $F_2(2, 28) = 12.27$, $p < .001$.

To examine these effects, a series of t tests were performed with Bonferroni corrections to adjust for inflated alphas. As indicated in Table 1, and as one would expect, participants rated literal compliments in these scenarios as significantly more polite than literal criticisms, $t_1(29) = 15.49$, $p < .001$; $t_2(14) = 5.13$, $p < .001$.

Given the previous rationale for including a no-response option in the analysis, there are, however, several more interesting and informative comparisons providing, at best, partial support for the Tinge Hypothesis. First, the data in Table 1 reveal that raters did not judge ironic criticisms to be any more polite than literal criticisms; $t_1(14) = .68$, *ns*; $t_2(7) = .60$, *ns*. This result is not consistent with the “tinge” predicted by Dews and her colleagues (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996). However, as predicted, raters judged ironic compliments to be significantly less polite than literal compliments, $t_1(15) = 12.38$, $p < .001$; $t_2(7) = 5.20$, $p < .001$. This latter result is consistent with the Tinge Hypothesis.

Of particular interest, in the context of an opportunity for criticism, raters viewed the no-response option as the most polite response. The no-response choice was considered more polite than either the ironic criticism, $t_1(14) = 4.18$, $p < .001$; $t_2(7) = 6.93$, $p < .001$, or the literal criticism, $t_1(14) = 6.24$, $p < .001$; $t_2(7) = 3.71$, $p < .008$. Indeed, as noted earlier, when a no-response option is available, raters appear to judge literal criticisms and ironic criticisms as equally impolite. Finally, although the Tinge Hypothesis is mute on this point, it is somewhat surprising to observe that raters did not differ in their judgments of the absolute level of politeness for the ironic criticisms and the ironic compliments in these scenarios, $t_1(29) = 1.84$, *ns*; $t_2(14) = 1.61$, *ns*. In the absence of any tinge effect produced by the positive language, one would expect the negative intent of the former to reduce the level of politeness in comparison to the latter.

Considered together, these data suggest that when the rater has a realistic no-response option, concerns about the relative politeness of an ironic or literal criticism apparently no longer motivate a choice between these two options. Instead, when participants are presented with an opportunity for criticism, the pattern of differ-

ences in this experiment suggests that it is most polite to say nothing. Alternatively, when given a realistic no-response option, and presented with an opportunity for compliment, the pattern of differences indicates that a literal compliment is more polite than the ironic form. This last outcome is consistent with the tinge assumption and with the view that either of the other choices (producing an ironic compliment or saying nothing) are more serious violations of politeness norms.

In these more realistic scenarios where speakers have the option of saying nothing, our tentative interpretation of the data is that politeness concerns may not be driving the decision to choose ironic criticisms over the literal form. As such, although politeness continues to be an important pragmatic concern, when a no-response option is provided, it provides a less compelling explanation for the asymmetry of affect typically observed in most irony production and comprehension tasks. Of course, the critical question remaining is whether the politeness ratings of the response options available in these scenarios will predict the likelihood of a speaker choosing the ironic form. This question is addressed in Experiments 3 and 4.

EXPERIMENT 2

As previously discussed, there are also several studies that have reported that criticisms are rated as more humorous than compliments and that ironic statements are more humorous than literal statements (e.g., Dews et al., 1995; Dews et al., 1996). As previously noted, these findings provide a plausible explanation for the asymmetry of affect because humor may decrease the intensity of the message a speaker is trying to convey. Because they are considered more humorous, ironic criticisms may deliver a less condemning message than literal criticisms. Alternatively, the humor in ironic compliments may also lessen the positivity the speaker wants to communicate and make the statement into less of a compliment. Therefore, in accordance with our basic desire to be positive (i.e., the Pollyanna hypothesis), people should be more likely to use irony in critical contexts than in complimentary contexts.

Again, in the existing research implicating humor in irony, the procedures have provided raters with only two response options: a literal reply and an ironic reply. This is perhaps less surprising. Unlike the research on the pragmatic role of politeness, there is no intuitively compelling reason to suspect that the availability of a no-response option would have a differential impact on the humorous properties of ironic and literal utterances. For example, in the hockey scenario described in Experiment 1, when Dave's performance is terrible, it seems somewhat awkward to even ask a rater to judge how humorous it would be for a speaker to make no comment on his performance. Despite this, it seemed prudent when asking for judgments of humor on these same scenarios to include the same no-response option we employed in Experiment 1. As such, this second experiment was an attempt to

replicate and extend prior research comparing the humor of ironic and literal forms across criticism and praise scenarios by employing the same 16 scenarios constructed for Experiment 1. The question of interest was whether, with the no-response option available in these 16 scenarios, we would replicate previous data indicating that criticisms are more humorous than compliments and that ironic statements are more humorous than literal ones.

Method

Participants. Thirty-five undergraduate psychology students participated for extra course credit. Participants were primarily middle- to upper middle-class students in their 1st year of study at Dalhousie University, Canada. None of these students had participated in Experiment 1. Participants were randomly assigned to one of two conditions (criticism or compliment).

Materials. Questionnaires used in Experiment 2 were identical to those used in Experiment 1, except that the words *polite* and *politeness* were replaced with *humorous* and *humor*, respectively.

Procedure. The procedure was identical to that of Experiment 1, except that instructions referred to humor instead of politeness.

Results and Discussion

The results from the humor questionnaires were subjected to a 2 (act polarity: criticism, compliment; between-subject) \times 3 (response type: ironic response, literal response, no response; within-subjects) repeated measures ANOVA (see Table 2). Participants' humor ratings differed significantly across response types when the random factor was participants; this difference was marginally significant with items as the random factor, $F_1(2, 66) = 114.84, p < .001$; $F_2(2, 28) = 2.41, p < .09$. In addition, participants rated humor differently across act polarity, $F_1(1, 33) = 5.06, p < .05$; $F_2(1, 14) = 4.91, p < .04$. An interaction between response type and act polarity, which was significant with participants and marginally significant with items, as a random factor was observed, $F_1(2, 66) = 3.71, p < .05$; $F_2(2, 28) = 2.79, p < .07$.

To examine these effects, a series of *t* tests were performed with Bonferroni corrections to adjust for inflated alphas. First, as conventional wisdom would predict, the data in Table 2 reveal no significant differences in participants' humor ratings of literal criticisms and literal compliments, $t_1(33) = 1.64, ns$; $t_2(14) = 1.86, ns$. Also, the humor ratings of making no response during an opportunity for criticism and making no response during an opportunity for praise did not differ, $t_1(33) = .56, ns$; $t_2(14) = 1.03, ns$.

TABLE 2
Humor Ratings for Each Response Option in Experiment 2

Act Polarity	Response Type					
	Ironic		Literal		No Response	
	M	SD	M	SD	M	SD
Criticism	4.66	1.38	2.50	1.07	1.07	0.27
Compliment	3.63	1.67	1.95	0.90	1.14	0.45

Note. Ratings were made on a 7-point scale ranging from 1 (*not humorous at all*) to 7 (*very humorous*).

There are, however, several comparisons implicating humor in the use of irony. First, as indicated in Table 2, participants rated ironic statements as more humorous than literal statements for both criticisms, $t_1(17) = 9.58, p < .001$; $t_2(7) = 6.91, p < .001$, and compliments, $t_1(16) = 4.61, p < .001$; $t_2(7) = 6.57, p < .001$. Second, participants rated the ironic criticisms as marginally more humorous than ironic compliments, $t_1(33) = 2.38, p < .025$; $t_2(14) = 3.50, p < .004$.

Essentially, in the presence of the no-response option, these two observations continue to support previous observations in the literature indicating that ironic statements are more humorous than literal statements, and ironic criticisms are more humorous than ironic compliments. As such, this asymmetry in the humor associated with the positive and negative forms of irony suggests that, unlike politeness, humor may be directly implicated in the asymmetry of affect phenomenon. Of course, the critical question remaining is whether the humor ratings of the response options available in these scenarios will predict the likelihood of the speaker choosing the ironic form.

EXPERIMENT 3

Although the results of Experiments 1 and 2 may suggest that politeness or humor are implicated in verbal irony use in some way, one cannot be certain that the politeness and humor questionnaires measured the pragmatic intentions of a potential ironic speaker *per se*. A more direct test of irony production is necessary. Therefore, Experiment 3 was designed to measure the production of verbal irony across critical and complimentary forms. This method was adapted from the standard textoid procedure and used the same 16 scenarios from Experiments 1 and 2. However, instead of being given statements to rate on a given dimension, participants were given the ironic statement, the literal statement, and an option to say nothing; participants were then asked which of the three responses they would be most likely to choose if they were participating in each of the scenarios. The first ques-

tion of interest was whether we would replicate the data reported by Hancock (2002) and observe the same asymmetry of affect in irony production in this particular variation on a textoid procedure. The second, and more important, question was whether the frequency of choosing the ironic response in each scenario (and the literal and no-response options) would be correlated with the politeness and humor ratings of those same responses during Experiments 1 and 2. A strong positive correlation of the tendency to produce an ironic response with either politeness or humor ratings would suggest that these discourse goals are important factors in the speaker's decision to use the ironic form.

Method

Participants. Two hundred thirty-nine undergraduate psychology students (44 men and 195 women) participated as part of a class exercise of an experimental methods class. Participants were primarily middle- to upper middle-class students in their 2nd year of study at Dalhousie University, Canada. None of these students had participated in Experiments 1 or 2. Participants were randomly assigned to one of two conditions (criticism or compliment).

Materials. Production questionnaires used the same 16 scenarios and response options from Experiments 1 and 2. The production questionnaires were identical to the politeness and humor questionnaires, except that instead of being asked to rate the three response options, participants were asked to imagine themselves in the situation and choose the response they would be most likely to produce.

Procedure. Participants were tested in groups of approximately 20 during an experimental methods lab session. The procedure was described to the students, and they were told that participation was voluntary and that they would not be penalized for withdrawing from the experiment. Participants then gave verbal informed consent to participate. They were then given the production questionnaire with instructions on the front page as follows:

Every day we encounter many different events and situations as we interact with people. Sometimes we feel the need to make a comment about the situation and other times we don't. Eight examples of hypothetical situations follow. For each example, imagine yourself in that particular situation and think about how you would actually respond. Read over the three options we have provided and circle the choice that best matches how you think you would respond.

After participants completed their questionnaire, they were debriefed.

Results and Discussion

The first question of interest was whether the results of this study would replicate those of Hancock (2002), which demonstrated the asymmetry of affect in irony production. An independent samples *t* test comparing the mean frequency of ironic criticisms and ironic compliments confirmed that participants chose to produce ironic criticisms more often than ironic compliments, $t_1(237) = 11.98, p < .001$; $t_2(14) = 2.45, p < .03$ (see Table 3). A second *t* test showed that participants produced fewer literal criticisms than literal compliments, $t_1(237) = 18.67, p < .001$, $t_2(14) = 3.26, p < .006$.

As participants were obligated to choose one of the three response options, the frequency of the third response option (no response) was determined by the frequencies of literal and ironic responses. Therefore, statistical comparisons for the no-response option across criticism and compliment contexts were not performed.

These results suggest that, although speakers prefer to be literal on the whole, ironic responses are more common when criticizing than when complimenting (i.e., consistent with previous studies, an asymmetry of affect was observed). Next, to investigate the possible factors driving this asymmetry, we employed a series of multiple regression models to assess the relative influence of humor and politeness as predictive variables in the context of each of the three response options (i.e., irony, literal, no response).

First consider the pattern of simple, first-order correlations of these two predictor variables with each other, and with the participants' tendency to select the ironic response option. When irony is the relevant response, scenarios that are rated as humorous also tend to be rated as more polite, $r(14) = .63, p < .05$. Note, however, that humor was the only predictor significantly associated with the tendency to select the ironic response option: humor, $r(14) = .62, p < .05$; politeness, $r(14) = .30, ns$. Given this pattern of first-order correlations, we further explored the relative contributions of humor and politeness by simultaneously entering each of these predictors in a multiple regression equation with the ironic response option as the criterion variable. The model indicated that an optimal linear combination of the two predictors explained 39% of the variance in the participants' ten-

TABLE 3
Frequency of Selection for Each Response Type in Experiment 3

	Response Type					
	Ironic		Literal		No Response	
Act Polarity	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Criticism	2.38	1.20	3.03	1.39	2.59	1.36
Compliment	0.65	1.05	6.06	1.12	1.28	0.92

dency to produce an ironic response, $R = .625$; $F(2, 13) = 4.17$, $p < .04$. More important, however, the partial correlations confirmed the pattern observed in the first-order correlations; that is, when the politeness factor is statistically controlled, a significant partial correlation of $.57$ ($p < .02$) indicates that humor continues to predict the selection of ironic responses. Alternatively, a partial correlation of $.03$ (*ns*) essentially indicates that, with humor statistically controlled, there is no relation between the politeness of the ironic response option and the likelihood that it will be selected.

The outcome of this multiple regression analysis is essentially consistent with the results we observed in Experiments 1 and 2. In Experiment 2, participants rated ironic criticisms as more humorous than ironic compliments, and participants considered ironic statements to be more humorous than literal statements for both criticism and compliment opportunities. Considered together, these data suggest that a desire to be humorous influences a speaker's decision to use verbal irony. The failure of politeness ratings to predict selection of the ironic response selection is also consistent with our observations in Experiment 1 where we observed no difference in politeness across ironic criticisms and ironic compliments, and no difference between ironic criticisms and literal criticisms. Politeness does not appear to be a motivating factor in a speaker's decision to use the ironic form.

When we employed these same statistical strategies with the literal option as the relevant response, a different but equally consistent story emerged. First consider the pattern of simple first-order correlations. In this context, the predictor variables were negatively correlated, $r(14) = -.61$, $p < .01$. Scenarios in which the literal response is rated humorously tend to be viewed as less polite. In contrast with the ironic form, the use of the literal form is predicted by politeness ratings, $r(14) = .75$, $p < .01$, and not by humor, $r(14) = .37$, *ns*. Again, we examined the relative contributions of humor and politeness in this context with the simultaneous entry regression model. The results indicated that an optimal linear combination of the two predictor variables explained 56% of the variance in participants' tendency to select the literal response, $R = .75$; $F(2, 13) = 8.33$, $p < .05$. Once again, the partial correlations confirmed the pattern of results in the first-order correlations. When the humor factor is statistically controlled, a significant partial correlation of $.70$ ($p < .05$) indicates that politeness continues to predict the selection of literal responses. Alternatively, a partial correlation of $.09$ (*ns*) suggests no relation between the humor of a literal response and the likelihood that it will be selected in this context.

Finally, when this same statistical strategy is employed with the no-response option, the pattern of associations is similar to those observed with the literal response in the sense that politeness appears to be the important factor in deciding not to respond. Specifically, note that there is essentially no first-order association between the two predictor variables in the context of the no-response option, $r(14) = .02$, *ns*. The politeness ratings significantly predict selection of the no-response

option, $r(14) = .80, p < .01$; and the humor ratings are not significantly associated with this response, $r(14) = .15, ns$. In the simultaneous entry regression model, an optimal linear combination of the two predictor variables explained 66% of the variance in the decision to select the no-response option, $R = .81; F(2, 13) = 12.71, p < .001$. The partial correlation between politeness and the tendency to make no response was $.81 (p < .01)$ as contrasted with a partial of $.25 (ns)$ between the humor ratings and the tendency to make no response. Therefore, for both the literal and no-response options, politeness ratings predicted the likelihood with which each type of statement was chosen, but humor ratings did not. These results are also consistent with our observations in Experiment 1 in which the only polite responses were to be literal (in complimentary contexts) or to say nothing (in critical contexts) as conventional wisdom dictates. Note also that humor did not correlate with either the literal or no-response options. As expected, the absolute levels of humor in those statements were rated as very low in Experiment 2.

To summarize, these multiple regression models revealed that humor is apparently a strong motivating factor in a speaker's decision to be ironic, whereas politeness is a primary factor in a speaker's decision to be literal or to say nothing.

EXPERIMENT 4

Considered together, the data from Experiments 1 through 3 suggest that humor explains a significant amount of the variance in irony production and offers a viable alternative interpretation for the asymmetry of affect phenomenon. Politeness, however, does not seem to be an important discourse goal in this context. The latter data are inconsistent with earlier research implicating politeness in ironic communication as an explanation for the asymmetry of affect (e.g., Dews et al., 1995; Dews & Winner, 1995).

One interpretation of these results suggests that this inconsistency might be explained by a procedural difference in the response options that are available to participants across these different experiments. As previously discussed, past research supporting the role of politeness as a discourse goal of verbal irony typically considered only two types of responses: literal and ironic. However, in a real-life situation, speakers have at least one additional response at their disposal: the option to say nothing. Again, according to conventional wisdom, the addition of this response option in a criticism context would be expected to selectively attenuate any politeness advantage held by an ironic utterance because it would be impolite to point out another's shortcomings in either an ironic or a literal manner when one has the option to remain silent. On the other hand, the addition of a no-response option would not be expected to affect politeness judgments of ironic compliments because it would be less polite to say nothing at all when one has the opportunity to produce a compliment.

In other words, the differential politeness advantage operating across ironic criticisms and compliments reported in earlier research may depend on the presence or absence of a no-response option in the procedure. Experiment 4 was designed to explore this issue more directly. Essentially, to determine if politeness ratings would actually regain some influence in scenarios that do not offer a no-response option, we systematically replicated Experiment 3 using the same set of scenarios and procedures but removed the no-response option. In each scenario, participants' choices were limited to either an ironic response or a literal response, as was the case in the procedures of earlier research supporting the role of politeness as a discourse goal of verbal irony (e.g., Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996).

Based on this reasoning, in this final experiment one might expect results similar to those reported in earlier research: an asymmetry of affect in which participants produce more ironic criticisms than compliments; and, more important, the return of significant correlations between the politeness ratings of the ironic response and the tendency to select that response when the response options are limited to ironic or literal. Because, as mentioned earlier, saying nothing is not typically considered humorous, one would also not expect the removal of the no-response option to affect the relation between humor and irony production we observed in Experiment 3.

Method

Participants. Thirty-two undergraduate students (17 men and 15 women, M age = 20.6 years) at Cornell University participated as part of a class exercise of a 4th-year linguistics class. None of these students had participated in Experiments 1, 2, or 3. Participants were randomly assigned to one of two conditions (criticism or compliment).

Materials. Questionnaires were identical to those used in Experiment 3, except that all no-response options had been removed.

Procedure. Participants were tested in a single class session; otherwise, the procedure was identical to that of Experiment 3.

Results and Discussion

First note that the results of this study replicate those of Experiment 3 and Hancock (2002) in demonstrating the asymmetry of affect. The independent samples t tests comparing the frequency of ironic criticisms with ironic compliments revealed that participants produced significantly more ironic criticisms than ironic compli-

ments, $t_1(30) = 4.43, p < .001$; $t_2(14) = 2.24, p < .04$ (see Table 4). Because participants were only given two options to choose from, the frequency of literal responses was completely determined by the frequency of ironic responses; thus, statistical analyses comparing literal responses across criticisms and compliments were not performed.

Two aspects of the data from this final experiment also appear to be consistent with the argument that the influence of politeness on irony production may depend on the presence or absence of a no-response option in the test procedure. First, when the results across Experiment 3 and 4 are compared, the participants in this experiment chose to produce irony ($M = 3.16, SD = 1.86$) more often than participants in Experiment 3 ($M = 1.48, SD = 1.42$), $t(269) = 6.03, p < .001$. However, there was no difference in the decision to use literal speech across Experiments 3 and 4 ($M = 4.60, SD = 1.97$) and Experiment 4 ($M = 4.84, SD = 1.87$), $t(269) < 1, ns$. As such, the elimination of the no-response option in this final experiment did not produce an *equivalent* increase in both ironic and literal forms, but rather selectively increased the tendency to produce ironic responses. This comparison across Experiments 3 and 4 is consistent with the suggestion that the politeness advantage of ironic responses may be restored by the removal of the no-response option and increase irony production.

The pattern of first-order bivariate correlations obtained in this experiment provides additional support for the preceding assumption. When the politeness and humor ratings from Experiments 1 and 2 are independently examined as predictor variables in this experiment, both politeness, $r(14) = .51, p < .05$, and humor, $r(14) = .67, p < .05$, significantly predicted the frequency of ironic responses. This pattern of correlations in these data (in contrast with those we observed in Experiment 3) is consistent with conclusions previously reported by Dews and her colleagues (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996); they identified a role for both politeness and humor in verbal irony. Considered together, these data suggest that, in procedures that do not include a no-response option and where participants are given only ironic and literal responses to consider, both politeness and humor are apparently influential in the decision to produce the ironic form.

TABLE 4
Frequency of Selection for Each Response Type in Experiment 4

Act Polarity	Response Type			
	Ironic		Literal	
	M	SD	M	SD
Criticism	4.31	1.14	3.69	1.14
Compliment	2.00	1.75	6.00	1.75

However, note that the previously described first-order correlations may be misleading. In these correlations, and in the earlier research reported by Dews and her colleagues (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996), one is considering the influence of each of these discourse goals independently. However, as we discovered in Experiment 3, the humor and politeness ratings of the scenarios are correlated, and a more stringent analysis is required to determine the extent to which each of these discourse goals are associated with the tendency to select the ironic response option when the other is statistically controlled. The relevant question in this context is whether the previously described first-order association between the politeness ratings and irony production will remain when the humor ratings are statistically controlled.

To explore this question, the politeness and humor ratings were simultaneously entered into a multiple regression model with frequency of ironic responses as the criterion variable. The results indicated that an optimal linear combination of the two predictors produced a multiple R of .60, explaining 47% of the variance in ironic response selection. This multiple R is significant, $F(2, 13) = 5.67, p < .02$. More important, the partial correlations indicate that when humor is statistically controlled, the partial correlation with politeness is no longer significant, $r(14) = .15, ns$; replicating the data from Experiment 3. In addition, when the politeness factor is statistically controlled, a significant partial correlation of .53 ($p < .05$) survives between humor and the selection of ironic responses; again replicating Experiment 3.

Considered together, these data can be reconciled with the existing literature. In this experiment, the first-order bivariate correlations relating irony to humor or politeness are independently analyzed. This approach is essentially equivalent to the independent analysis of the role of these discourse goals in the seminal research reported earlier by Dews and colleagues (Dews et al., 1995; Dews & Winner, 1995; Dews et al., 1996). Under these conditions, the ironic responses appear to maintain their politeness advantage (for criticisms) or disadvantage (for compliments). However, our data suggest that if earlier research had employed methods that considered the simultaneous influence of both humor and politeness on irony, different conclusions may have emerged about the role of politeness in ironic communication.

Essentially, when the humor and politeness factors are pitted against each other in a multiple regression analysis, the data from this experiment reveal a pattern of correlations that is completely consistent with the data from Experiment 3. Apparently, it does not matter whether one uses scenarios with two response options (ironic or literal) or three response options (ironic, literal, or no response). In both procedures, the data from Experiments 3 and 4 indicate that politeness does not explain a significant amount of variance in the participants' decision to select an ironic response when humor is statistically controlled; however, in both procedures, humor does predict the tendency to produce irony when politeness is statistically controlled.

Finally, consider a similar analysis of participants' tendency to select the literal response option in this experiment. In the first-order bivariate correlations, humor did not significantly predict the frequency of literal responses, $r(14) = -.18$, *ns*; however, politeness was significantly associated with the choice to produce a literal response, $r(14) = .51$, $p < .05$. The simultaneous entry of humor and politeness produced a multiple *R* of .53, explaining 28% of the variance in the literal response selection. The multiple *R* showed a trend toward significance, $F(2, 13) = 2.57$, $p < .11$. In this case, the partial correlations were consistent with the first-order bivariate correlations. When humor was statistically controlled, the partial correlation for politeness was significant, $r(14) = .51$, $p < .05$; indicating that politeness continued to predict the selection of literal responses. In contrast, when politeness is statistically controlled, the partial correlation for humor was nonsignificant, $r(14) = .18$, *ns*; suggesting no relation between the humor of a literal response and the likelihood that it will be selected. The results of this multiple regression model essentially replicate the data reported in Experiment 3 and indicate, once again, that politeness is a determining factor in the decision to employ literal speech; whereas, in this context, humor is not.

GENERAL DISCUSSION

This set of experiments was designed to investigate the roles played by politeness and humor in a speaker's decision to employ the ironic form. First consider the politeness ratings observed in Experiment 1. Our results did not support the Tinge Hypothesis (Dews & Winner, 1995) in that ironic criticisms and literal criticisms did not differ in politeness when a third, more polite response option (saying nothing) was available. These data are consistent with more general research on language use suggesting that, when presented with the opportunity to convey important information to a target, people are much more likely to say nothing when the information is negative than when it is positive; a well-known phenomenon referred to as the "mum effect" (Tesser & Rosen, 1975). In addition, politeness ratings failed to predict the frequency of irony production, but politeness was clearly associated with the choice of the literal and no-response options. Indeed, given that conversational comments requiring a negative response often include the option of saying nothing, it is difficult to argue, in general, that the production of an ironic criticism serves a goal of politeness. However, the data are quite consistent with a substantial literature suggesting that politeness is an important factor influencing language during everyday discourse (e.g., Brown & Levinson, 1987).

It might be argued that, in situations where saying nothing is truly not an option (e.g., where one is asked, "What do you think?"), ironic criticisms might regain their politeness advantage over literal criticisms; however, it is difficult to imagine a scenario in which an ironic criticism would be the *most* polite response possible.

For example, on being asked, "What do you think?" a speaker truly concerned with sparing the feelings of a friend who has performed poorly might respond with, "You'll do better next time," or something similarly more supportive than an ironically delivered, "Great shot." Our main goal in our examination of the role of politeness in verbal irony was to demonstrate that, in situations requiring a negative assessment, response options other than literal and ironic criticisms exist and that responses that are more polite than either literal or ironic criticisms (of which the no-response option may be just one example) are likely to be found among these alternatives. Therefore, it appears that a speaker's politeness goals would be poorly served by uttering an ironic criticism in situations where alternate responses are possible.

Next, consider the role of humor. Unlike the politeness ratings, the data from Experiment 2 confirmed existing research suggesting that ironic criticisms and ironic compliments are more humorous than either of their literal counterparts (e.g., Dews et al., 1995; Dews et al., 1996). In addition, humor ratings clearly predict the frequency with which ironic responses were selected by the participants, and they are not related to the frequency with which participants choose a literal response or the no-response option. More important, with reference to the asymmetry of affect, the humor ratings also confirm that ironic criticisms were rated as funnier than ironic compliments. As such, ironic compliments do not serve a humorist's purpose nearly as well as their critical counterparts; and in any context where humor is a goal, one should observe the asymmetry in irony production reported by Hancock (2002). Considered together, the data from Experiments 2 through 4 are consistent with the view that humor is an important motive in the decision to employ the ironic form, and the asymmetry in production may be mediated by the differential in humor across positive and negative forms of irony.

Although these data paint a reasonably consistent picture of the influence of politeness and humor on the production of irony, some caution should be exercised when generalizing from them. Note, for example, that the ironic and literal responses made by the protagonist in each of our scenarios were evaluative and specifically targeted a social partner who was a close friend of the protagonist. The role of politeness and humor as discourse goals may, in fact, vary substantially across other social contexts. For example, it is possible that politeness may actually have more influence than humor on the decision to make an ironic comment if the target of the evaluative remark is a stranger instead of a friend (cf. Hancock, 2002); or humor, for example, may be less important to a speaker if the ironic comment references a third party outside of the conversation. It also seems reasonable to suggest that neither of these motives may be particularly influential in the decision to employ irony when evaluating a nonsocial target, such as the weather, during everyday discourse. Indeed, until additional research is completed across a wider range of social contexts and discourse topics, our suggestion that differences

in humor across positive and negative forms of irony mediate the asymmetry of affect in irony production should be viewed as tentative.

It should also be noted that, although much care was put into devising the scenario items used in this series of experiments, it is possible that the criticism and compliment scenarios differ along dimensions other than the intended independent variable. We attempted to make the scenarios as intuitively appealing and ecologically valid as possible; however, we also admit that some caution may be required in any claim that the polarity difference in these scenarios is the only factor contributing to the differential effects that we have observed. Additional research will be necessary using other scenarios across various contexts to confirm our results.

Finally, we also believe that it is important to examine these same questions about irony production in the context of discourse goals other than humor and politeness. Humor and politeness are generally thought of as positive attributes when present in speech, and it may be particularly informative to examine goals that are generally considered to be negative. For instance, Colston (1997) suggested that irony may be a means for enhancing criticism, rather than diluting it as the Tinge Hypothesis suggests. Kumon-Nakamura et al. (1995) also reported that ratings of irony tend to be positively correlated with ratings of rudeness and insult. We argue that the basic rationale and methodology employed in this research can be generalized to explore a rich array of questions about the influence of various discourse goals on the decision to use the ironic form across different social contexts.

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