

**Empathy and Verbal Irony Production and Appreciation: A Multidimensional
Investigation**

by

Jordanna Smith

**A Thesis submitted to the
Faculty of Graduate and Postdoctoral Studies
of the University of Manitoba
in partial fulfilment of the requirements of the degree of**

Master of Arts

Department of Psychology

University of Manitoba

Winnipeg

Copyright © 2026 by Jordanna Smith

Artificial Intelligence Training Statement

Except as otherwise permitted by any open licensing applied to this work, the author expressly reserves all rights to use of this work for Generative Artificial Intelligence training, the development of machine learning language models, and similar technologies. Where open licensing applies to this work, the author expresses their preference to opt out of the preceding uses.

Abstract

Verbal irony serves various social functions and requires the listener to understand the mental state of the speaker for interpretation. Although people with high levels of empathy tend to be socially attuned to the feelings and experiences of those around them, there is a gap in the literature relating empathy to verbal irony production, and findings regarding the empathy–verbal irony appreciation relationship are mixed. In the current study, 115 undergraduate participants completed self-reported measures of empathy and verbal irony use. Participants then watched 12 videos in which speakers directed ironic and literal criticisms and compliments at addressees. After each video, participants responded to questions assessing speaker belief comprehension and appreciation of the speaker’s attitude, intended humour, and the effect on the addressee. I predicted that specific empathy subscales would be associated with self-reported verbal irony production, and with accuracy and appreciation of ironic statements. Contrary to my hypotheses, empathy subscale scores were not significantly related to self-reported verbal irony production, speaker belief accuracy, or appreciation ratings. Exploratory analyses indicated that verbal irony appreciation varied by statement type, such that participants distinguished ironic statements from literal ones, as well as ironic criticisms from ironic compliments. Overall, the findings suggest that self-reported empathy may not be a strong predictor of self-reported verbal irony production or verbal irony appreciation as measured by the outcomes in this study.

Acknowledgements

I would like to express my gratitude to Dr. Melanie Glenwright for her time, guidance, and ongoing support throughout the development of this thesis. Her feedback and expertise were invaluable at every stage of this research project. I would also like to thank Sophie Smitheringale for her assistance with data entry and support during the research process.

This research was supported by funding from the Social Sciences and Humanities Research Council of Canada (SSHRC) through a Canada Graduate Scholarship – Master’s (CGS-M).

Contents

Introduction.....	7
Verbal Irony	8
Verbal Irony Production	10
Verbal Irony Appreciation	11
Empathy	12
Relationship between Empathy and Verbal Irony	13
The Present Study	17
Methods.....	19
Participants	19
Materials.....	20
Empathy Measure	20
Verbal Irony Production Measure.....	21
Verbal Irony Appreciation Task	22
Procedure.....	23
Coding	24
Results.....	25
Preliminary Analyses	25
Primary Analyses on Self-Reported Verbal Irony Production.....	26
Primary Analyses on Verbal Irony Appreciation.....	28
Exploratory Analyses for Ironic and Literal Statements.....	29
Exploratory Analyses for Ironic Criticisms and Ironic Compliments	30
Discussion.....	30

Empathy and Self-Reported Verbal Irony Production	31
Empathy and Verbal Irony Appreciation	32
Statement Type Differences in Verbal Irony Appreciation	35
Strengths and Limitations	37
Implications and Future Directions	38
Conclusion.....	40
References	41
Table 1. Participant Demographics.....	46
Table 2. Descriptive Statistics for Empathy Subscale Scores and Sarcasm Use Subscale Scores	47
Table 3. Bivariate Correlation Coefficients for Empathy Subscale Scores and Sarcasm Use Subscale Scores	48
Table 4. Linear Regression Analyses on Mean Empathy Subscale Scores Predicting Mean Sarcasm Use Subscale Scores	50
Table 5. Bivariate Correlation Coefficients for Empathy Subscale Scores and Mean Irony Appreciation Measure Scores	51
Table 6. Linear Regression Analyses on Empathy Subscale Scores Predicting Mean Irony Appreciation Measure Scores	53
Appendix: Verbal Irony Appreciation Task Video Scripts	54

Empathy and Verbal Irony Production and Appreciation: A Multidimensional Investigation

Imagine the head chef of a restaurant walking into her kitchen right before a dinner rush, only to find it messy and completely out of order. She says to her employees, “This is great, everyone. It’s just what we need right now.” Clearly, the chef’s words are not a literal representation of her intended message, but why did she decide to use verbal irony in this moment? Is she attempting to soften criticism or diffuse frustration? Furthermore, how will her staff interpret it? Some employees may perceive her irony as a lighthearted way to cope with frustration, while others feel criticized and demoralized. How each staff member appreciates the chef’s verbal irony may depend on their individual ability to empathize with the chef’s perspective, as well as how her own empathy and the social context influence her use of irony in the first place.

Verbal irony serves various communicative functions such as minimizing social discomfort and protecting the feelings of others (Dews & Winner, 1995) and can thus be used for different purposes, depending on individuals’ social tendencies. Although empathy-related traits including aggressiveness (Gibbs & Colston, 2012) and psychoticism (Bruntsch & Ruch, 2017) have been associated with verbal irony production, there is limited research on the influence of various forms of empathy on different motives for verbal irony use. Furthermore, the process of appreciating verbal irony requires the listener to recognize the non-literal meaning of the ironic utterance by inferring the mental state of the speaker. It is thus likely that the inference process is facilitated by tendencies related to social awareness and perspective-taking, such as empathy. Some researchers argue that empathy facilitates interpretation of verbal irony through understanding the mental states of others (e.g., Nicholson, 2013; Shamay-Tsoory et al., 2005),

while others posit that the discomfort created by nonliteral language causes more difficulty for empathic individuals in interpretation (e.g., Joergensen et al., 2022; Sparks et al., 2010). It is likely that these inconsistencies in the literature are the result of different approaches to defining and presenting verbal irony, as well as to conceptualizing and measuring empathy. The purpose of the current study was to further clarify relationship between empathy and verbal irony by considering the multifaceted nature of both concepts. By analyzing the influence of various components of empathy on different aspects of verbal irony production and appreciation, this study aimed to examine the complex interactions that could be contributing to these inconsistencies in the literature.

Verbal Irony

Verbal irony is a feature of communication that is used regularly in daily conversations, especially between individuals with close relationships (Pfeifer & Pexman, 2023). Despite its frequent usage, the definition of verbal irony is not always clear or consistent in everyday language. In the literature, verbal irony is generally understood as a feature of language in which the nonliteral meaning of an utterance is in opposition with the literal meaning (Kalowski et al., 2023). An important feature of this definition is that the ironic speaker is deliberately insincere and assumes the listener will detect this insincerity based on situational incongruities (Pfeifer & Pexman, 2023). Although the term *sarcasm* is often considered interchangeable with verbal irony, some researchers consider the two concepts to have distinct features and communicative functions, while others view sarcasm as a specific type of verbal irony that is bitter or generally negative (Taylor, 2017). In the present study, I used the Sarcasm Self-Report Scale (SSS; Ivanko et al., 2004), which applies the term *sarcasm* to describe utterances that could be viewed as either verbal irony or sarcasm in most English-speaking contexts. However, for consistency and

clarity, I use the term *verbal irony* throughout this paper to refer to both positive and negative utterances in which the literal meaning is different from the nonliteral meaning.

In honouring the definition of verbal irony that accounts for both positive and negative remarks, we can consider both ironic criticisms and ironic compliments as verbal irony. In the current study, I examined four statement types: ironic criticisms, literal criticisms, ironic compliments, and literal compliments. An ironic criticism is literally positive but carries a negative meaning (e.g., saying “You’re a fantastic baker!” after someone makes a clearly burnt batch of cookies), while a literal criticism is both intended and worded negatively (e.g., saying “You’re not very good at baking” in the same situation). Alternatively, an ironic compliment is negative when interpreted literally, but carries a positive meaning (e.g., saying “You’re such a slow runner” after someone wins a race), while a literal compliment is a straightforward and positive evaluation (e.g., “You’re a great runner” in the same situation). Although most individuals would be able to correctly discern the ironic statements from the literal statements in these examples, it is not always clear why this form of nonliteral language is often chosen over direct communication.

Verbal irony is a communicative device that serves social functions beyond those provided by literal language (Krygier-Bartz & Glenwright, 2022). Speakers may use verbal irony to be funny and tease others (Colston & O’Brien, 2000), to mute the intensity of criticism (Dews & Winner, 1995), or to serve politeness norms (Kumon-Nakamura et al., 1995). Due to its complex social nature, various theories to explain the functions of verbal irony have been presented in the literature. For example, theories such as echoic mention theory (Sperber & Wilson, 1981), pretense theory (Clark & Gerrig, 1984), and allusional pretense theory (Kumon-Nakamura et al., 1995) hold that verbal irony is a mechanism for expressing critical attitudes by

drawing attention to the contrast between some unmet norm or expectation and reality.

Importantly, these theories highlight the cognitive abilities necessary to understand verbal irony, since the listener must be able to infer the speaker's true belief or attitude to correctly interpret their meaning. Furthermore, other perspectives such as the tinge hypothesis (Dews & Winner, 1995) and politeness theory (Brown & Levinson, 1987) hold that verbal irony serves the purpose of "tinging" the effect of the ironic utterance and thus softening the impact on the addressee.

This framework positions irony as a useful tool for maintaining smooth social interactions, as it helps the speaker convey their message while minimizing embarrassment and harm done to the addressee. It is thus clear that among the many conceptualizations of verbal irony in the literature, researchers generally consider it as a communicative device used to express (often negative) evaluations of people or situations while avoiding the social discomfort often associated with bluntness.

Verbal Irony Production

Researchers have used various methods to assess verbal irony production, often by describing specific scenarios to participants and asking them to either provide an open-ended response to assess their frequency of irony use (e.g., Bajerski, 2016), or to choose between response options including ironic and unironic responses (e.g., Brunsch & Ruch, 2017; Ivanko et al., 2004). Considering the different social functions that can be served by irony, it is likely that individuals vary in the specific social contexts in which they produce verbal irony. To examine individual differences in verbal irony use, Ivanko et al. (2004) devised the Sarcasm Self-Report Scale (SSS). This measure contains 15 items assessing individuals' views of themselves as sarcastic as well as tendencies to use verbal irony in various situations. The SSS measures four factors: general sarcasm, face-saving, embarrassment diffusion, and frustration

diffusion. In support of this factor structure, the researchers successfully used the SSS subscales to predict participants' later use of ironic statements (Ivanko et al., 2004). This measure thus allows for a detailed analysis of individuals' verbal irony production for different social purposes.

Verbal Irony Appreciation

Given the frequency of verbal irony use in everyday conversation, it is not surprising there are decades of research investigating the mechanisms by which individuals recognize this form of indirect communication. A particular topic of interest in the literature is individuals' use of contextual and communicative cues to detect and appreciate verbal irony. One of the most common cues to a speaker's ironic intent is contextual incongruity (Ackerman, 1983; Katz & Lee, 1993). Such incongruities signal a non-literal interpretation of a speaker's meaning, as the literal form of the statement does not align with situational information (e.g., complimenting one's baking skills when their cookies are clearly burnt). In addition to this contextual cue, listeners can often use the speaker's intonation as a cue in detecting verbal irony (Smith & Glenwright, 2025). Relative to a native English speaker's typical sincere prosody, ironic intonation tends to have a slower speech rate and louder amplitude (Rockwell, 2000), as well as a lower pitch (i.e., Glenwright et al., 2013; Rockwell, 2000). Such intonation is often accompanied by facial expressions that further signal ironic intent, such as expressive mouth movements and eyebrow raises (Aguert, 2021). Considering these various cues that interact to suggest ironic intent, it is clear that appreciation of verbal irony requires the listener to have some level of social awareness to recognize situational incongruities and paralinguistic cues provided by the speaker. Thus, this recognition process may be facilitated by tendencies related to social awareness, such as empathy.

Empathy

At a conceptual level, empathy can be understood as “understanding, sharing, and caring about the emotions of other people” (Depow et al., 2021). However, some researchers have criticized the inconsistency with which the term *empathy* is defined in the psychology literature (e.g., Hall & Schwartz, 2018). Despite being a well-known concept in both academic and everyday contexts, it is not always clear exactly what researchers are referring to when they discuss empathy. Indeed, Hall and Schwartz (2018) reviewed 489 studies that provided definitions of empathy and found disagreements between researchers on the criteria necessary to the definition, the number of components or dimensions that the term encapsulates, and the methods by which this concept should be measured and studied. To identify the commonalities among these countless conceptions, Depow et al. (2021) summarize three components of empathy that many researchers seem to agree on: an emotional process involving sharing the feelings of others, a cognitive process regarding the ability to take others’ perspectives, and a motivational process that involves sympathy and the desire to help others.

Many researchers have categorized various forms of empathy, highlighting, for example, a distinction between intellectual empathy and empathic emotions (Davis, 1983; Duan & Hill, 1996), or between empathic attitude and empathic skills (Schrooten & de Jong, 2017). In considering previous researchers’ interpretations, Davis (1980) provided theoretical justification for a multifaceted conception of empathy involving a set of interrelated yet distinct constructs. This led to the development of a measure that accounts for both the cognitive and affective aspects captured under the umbrella concept of empathy. The Interpersonal Reactivity Index (IRI; Davis, 1980) consists of four subscales that assess individuals’ tendencies to adopt the viewpoints of others (perspective-taking), imaginatively experience the feelings and thoughts of

fictitious characters (fantasy), feel concern for unfortunate others (empathic concern), and experience personal distress in tense social situations (personal distress). The multidimensional nature of this scale demonstrates the nuance carried by the concept of empathy, which is crucial for empirical investigations that examine individual empathy as a variable. Indeed, the precision of Davis' (1980) conceptualization of empathy has been reflected in many subsequent studies using this measure to predict related traits and behavioural outcomes (e.g., Eisenberg and Miller, 1987; Quaranta et al., 2023).

Relationship between Empathy and Verbal Irony

Given the social nature of empathy, it is not surprising that researchers are interested in how this individual capacity influences interpersonal communication. Although much of the literature has focused on verbal irony comprehension and appreciation with little consideration for how empathy may affect verbal irony production, the recognition of various social functions of verbal irony suggests complex relationships between empathy-related traits and verbal irony production. For example, Gibbs and Colston (2012) posit that irony is a broad category of figurative language and is used for different purposes such as sarcasm (in this case, referring to negative uses of verbal irony) and jocularly. The authors thus argue that the various types of verbal irony use are likely related to different dimensions of personality, such as sarcasm with aggression or jocularly with agreeableness. In a similar line of research, Brunsch and Ruch (2017) found a correlation between psychoticism and use of ridiculing irony to expose the weaknesses of others with little concern for callousness. Considering the interpersonal implications of traits such as aggression, agreeableness, and psychoticism, it follows from these results that social abilities such as empathy should predict individuals' tendencies to use verbal irony for different functions.

Furthermore, Bajerski (2016) found that people with higher levels of emotional intelligence are less likely to use verbal irony. Noting that empathy is a strong component in the emotional intelligence measure used, the author suggests this relationship reflects the ability of emotionally intelligent individuals to take the feelings of others into account and avoid causing any unnecessary harm to the addressee (Bajerski, 2016). These results are compatible with other research examining Dark Triad traits as predictors of verbal irony use in a sample of Polish adults, which related psychopathy was to negative usages such as sarcastic aggression (Fanslau et al., 2023). The researchers suggest these findings can be explained by the lack of concern for the feelings of others typically associated with psychopathy. Collectively, these findings suggest that empathy-related traits influence individuals' use of verbal irony to serve different social functions, and there are likely various interrelations at play here. Given the lack of research directly examining empathy in relation to irony production, the literature would benefit from a thorough examination of how specific forms of empathy influence the contexts in which individuals use verbal irony.

Despite the gap in the literature regarding the empathy–verbal irony production relationship, researchers have placed relatively more emphasis on how empathy shapes verbal irony comprehension and appreciation. For instance, because the understanding of nonliteral language often requires the ability to view a situation from another individual's perspective, it follows that interpersonal skills such as empathy would play a role in detecting and appreciating irony. Indeed, some developmental research has found that 8- to 9-year-old children with higher (i.e., relative to lower) empathy scores are better at understanding verbal irony (Nicholson et al., 2013). The authors argued that children's emotional development affects irony appreciation due to the cognitive skills necessary to assess the affective aspects of others' attitudes. These findings

align with research on adult participants, showing faster detection of irony for listeners who score higher (i.e., relative to lower) in emotional intelligence (i.e., an individual trait closely related to empathy; Jacob et al., 2016) and deficits in irony recognition due to impairments in empathy for males with alcohol use disorders (Amenta et al., 2012).

Other researchers have taken a neuroscientific approach to investigate the relationship between empathy and verbal irony appreciation. Shamay-Tsoory et al. (2005) found an association between brain damage to the right ventromedial prefrontal cortex (vmPFC) and difficulty in irony detection. Since the vmPFC is involved in interpreting affective information, the researchers suggest that this difficulty is caused by a lack of empathic ability to understand the mental states of others. Similarly, Spotorno et al. (2012) found neural evidence that theory of mind, which requires the ability to take the perspective of others, plays a key role in the process of interpreting verbal irony. Jakobson et al. (2018) associated the fantasy subscale of the IRI with appreciation of nonliteral language, specifically that lower scores predicted difficulty identifying a speaker's intentions. The authors argue that these findings may reflect difficulties in interpreting paralinguistic cues for individuals with limited imagination and empathic drive (Jakobson et al., 2018).

Despite the apparent consistency of these findings suggesting that empathy facilitates verbal irony comprehension, there are also some contrasting findings in the literature. For instance, Joergensen et al. (2022) examined the influence of individual traits on the appreciation of literal and nonliteral language with self-report measures. Notably, those with higher affective empathy had more difficulty decoding the sincerity of statements, which the authors attributed to possible discomfort created by intentions such as literal negative or sarcastic statements (Joergensen et al., 2022). The researchers related their findings to those of Sparks et al. (2010),

which showed difficulty in interpreting verbal irony for participants with high scores on the personal distress aspect of empathy. At first glance, these results seem incompatible with other explanations presented in the literature. However, given the various measures and methodologies applied in studying this association, it is possible that these inconsistent findings are the result of different approaches to measuring empathy and verbal irony appreciation.

Although the findings described have formed a strong foundation for understanding the empathy-verbal irony relationship, each study poses unique limitations that restrict the conclusions that can be drawn. Despite evidence of an association between empathy-related traits and verbal irony production, there is a gap in the literature regarding the influence of empathy on specific motives for verbal irony use. Furthermore, some of the most frequent limitations in research examining empathy in relation to verbal irony appear to be insufficient sample sizes (e.g., Amenta et al., 2012; Jacob et al., 2016; Joergensen et al., 2022), use of methods such as written stories (e.g., Amenta et al., 2012) or puppet shows (e.g., Nicholson et al., 2013) that lack prosodic or facial cues usually present in everyday interactions, lack of inclusion of different forms of verbal irony (i.e., both criticism and praise; Brunsch & Ruch, 2017; Nicholson et al., 2013), and lack of differentiation between specific components of empathy (Bajerski, 2016; Joergensen et al., 2022; Shamay-Tsoory et al., 2005). For example, Joergensen et al. (2022) divided the four IRI subscales into two pairs for analysis, which they described as *cognitive empathy* (perspective-taking and fantasy) and *affective empathy* (empathic concern and personal distress). This pairing may have limited their ability to detect subtle nuance between these interrelated but distinct factors.

In the present study, multifactorial measures were used to distinguish among self-reported components of empathy and verbal irony production with the IRI and SSS, respectively.

Despite being a self-report measure, the four subscales of the SSS ask the participant to indicate their likelihood of using verbal irony in various contexts. I further analyzed potential interrelated relationships between all four subscales of the IRI and the verbal irony appreciation measures for both ironic criticisms and ironic compliments, which included participants' interpretations of a speaker's intent to be ironic (vs. literal), nice (vs. mean), and funny (vs. serious), as well as judgments of the emotional effect of the statement on the addressee. This research added novel contributions to the literature by way of its nuanced study design, which examined a broad range of empathy and verbal irony constructs. Whereas previous research has often focused solely on empathy (i.e., or related traits) and verbal irony comprehension (e.g., Nicholson et al., 2013; Shamay-Tsoory et al., 2005; Spoto et al., 2012), the current study considered various aspects of empathy in relation to different forms of self-reported verbal irony production, and by measuring several distinct components of verbal irony appreciation in addition to comprehension. Together, these nuanced approaches to measuring the constructs in question provided a more thorough investigation of the empathy–verbal irony relationship than has typically been conducted in prior research.

The Present Study

The present study aimed to expand upon previous research by systematically examining whether various forms of empathy were associated with self-reported verbal irony production and verbal irony appreciation. This was achieved by first asking undergraduate student participants to complete the IRI as a multidimensional empathy measure, and the SSS as a self-report measure of verbal irony use in various social contexts. Participants then viewed 12 TV show clips in which a speaker made either a literal or ironic statement. To measure verbal irony comprehension and appreciation, we asked participants after each clip to rate their interpretations

of the speaker's belief (i.e., whether they believed what they said), the speaker's intentions (i.e., whether they intended to be nice or mean, and funny or serious) and the addressee's reaction (i.e., whether they felt good or bad about themselves after).

Individuals with varying levels of empathy were expected to use verbal irony for different social purposes. Those high in perspective-taking were expected to assume that others also share this ability and have less concern of being misunderstood, leading them to use verbal irony more frequently. Additionally, because those with high empathic concern are motivated to protect the feelings of others, it was posited that these individuals may use verbal irony specifically for its tinging effect. Given that the general sarcasm subscale of the SSS gauges individuals' overall views of themselves as sarcastic and tendencies to use irony to mute the intensity of a negative utterance, I predicted that perspective taking and empathic concern scores would be positively associated with general sarcasm scores on the SSS.

Individuals high in empathic concern and personal distress were expected to be concerned with immodesty and thus report using verbal irony as a strategy to appear modest and avoid patronizing others. I therefore predicted that empathic concern and personal distress scores would be positively associated with embarrassment diffusion scores on the SSS. Furthermore, because the sympathetic nature of those with high empathic concern implies a motivation to avoid making others feel guilty or uncomfortable, I predicted that empathic concern scores would be positively associated with frustration diffusion scores on the SSS. Finally, due to their sensitivity to social tension, individuals high in personal distress were expected to report that they would not use verbal irony in relatively risky contexts where they may be misunderstood, such as when speaking to new acquaintances. I thus predicted that personal distress scores would be negatively associated with face-saving scores on the SSS.

In addition to verbal irony production, relationships between individual empathy and specific aspects of irony appreciation (i.e., consideration of both the speaker's and addressee's perspectives) were also anticipated. Individuals high in perspective taking should be able to consider the intended meaning of the irony from the speaker's point of view, and those high in fantasy have a tendency to imagine themselves in the position of fictitious characters. I therefore predicted that both perspective-taking and fantasy scores would be positively associated with correct interpretations of the ironic speaker's belief (i.e., for both ironic criticisms and ironic compliments).

Turning to the more affective components of empathy, individuals high in empathic concern and those high in personal distress were anticipated to be concerned with the negativity associated with ironic criticisms, leading them to perceive the ironic speaker's statements as more mean and less funny. Furthermore, when imagining themselves in the addressee's position, these individuals were expected to have relatively stronger reactions to ironic criticisms. I thus predicted that both empathic concern and personal distress scores would be positively associated with ratings of the speaker's intentions as mean (i.e., versus nice) and serious (i.e., versus funny), and more negative (i.e., versus positive) ratings of the effect on the addressee.

Methods

Participants

The current sample included 115 participants recruited from introductory psychology courses at the University of Manitoba. A power analysis using G*Power (Version 3.1) indicated that a minimum sample size of 68 participants was required to achieve statistical power of .80 and a medium effect size of $f^2 = .15$ for a multiple regression analysis with two predictors.

Students registered to participate through the SONA online system (<https://www.sonasystems.com>; the undergraduate subject pool at the University of Manitoba) and received credit toward a research participation option. Since I wanted to ensure as diverse of a sample as possible, the only inclusion criterion was that participants must speak English as their first language. Within the sample, the majority of participants were White (34.8%) women (60.0%) with a mean age of 19.02 years. Please see Table 1 for a detailed summary of participant demographics. After receiving ethics approval from the Research Ethics Board at the University of Manitoba (Fort Garry campus), data were collected over 18 testing sessions in March 2026.

Prior to analysis, data were screened for missing responses and response-quality concerns. Screening for participants with too few speaker belief trials (i.e., fewer than 10 trials on which to base their speaker belief accuracy score) and participants who provided invariant responses across appreciation ratings (i.e., $SD = 0.00$) did not result in any exclusions.

Materials

Each participant was provided with a pencil and a response booklet containing demographic questions, the IRI, and the SSS. In addition, the booklets contained questions that corresponded to each of 12 videos that participants were shown, which are described below.

Empathy Measure

The IRI was used to measure participants' empathy levels, as it captures the multifaceted components of empathy and thus allowed for a thorough analysis. This is a self-report measure containing four subscales with seven items each: perspective-taking, fantasy, empathic concern, and personal distress. Scores on the perspective-taking subscale reflect the tendency and ability to adopt the viewpoint of others (e.g., “I try to look at everybody’s side of a disagreement before I make a decision”). The fantasy subscale examines the propensity to imaginatively engage with

the feelings of fictitious characters (e.g., “I get really involved with the feelings of characters in a novel”). Empathic concern items measure affective responses of sympathy and concern for the suffering of others (e.g., “When I see someone being taken advantage of, I feel kind of protective towards them”). Finally, personal distress scores reflect the tendency to feel self-directed anxiety and discomfort in tense interpersonal contexts (“I sometimes feel helpless when I am in the middle of a very emotional situation”). Participants responded to all 28 items on a 5-point scale ranging from "Does not describe me well" to "Describes me very well." The subscales of this measure have been shown to be reliable using Cronbach's alpha (perspective-taking, $\alpha = 0.79$, fantasy, $\alpha = 0.82$, empathic concern, $\alpha = 0.80$, personal distress, $\alpha = 0.75$; Pulos et al., 2004). Construct validity for this measure has been demonstrated by various studies relating IRI scores to associated outcomes, including other widely used empathy measures (Davis, 1983), prosocial behaviours (Eisenberg & Miller, 1987), and neural measurements of brain regions involved in empathy (Quaranta et al., 2023).

Verbal Irony Production Measure

To measure verbal irony production, I used the SSS, a 15-item measure designed by Ivanko et al. (2004). Participants responded by indicating how likely they were to use sarcasm in various scenarios, using 7-point rating scales ranging from “Not at all likely” to “Extremely likely.” This measure categorizes items into four factors representing different uses of sarcasm: general sarcasm, face-saving, embarrassment diffusion, and frustration diffusion. The general sarcasm subscale gauges individuals' perceptions of themselves as sarcastic (e.g., “How sarcastic are you?”) and tendencies to use irony for its tinging purposes (e.g., “Likelihood that you would use sarcasm when insulting someone”). Scores on the face-saving subscale assess the tendency to use verbal irony with new acquaintances and when giving praise (e.g., “Likelihood that you

would use sarcasm with a new colleague at work”). The embarrassment diffusion subscale measures the use of verbal irony for the purpose of modesty (e.g., Likelihood of using sarcasm when “you score the winning point for your team in the final basketball game of the season”). Lastly, the frustration diffusion subscale assesses the tendency to mock frustrating situations (e.g., Likelihood of using sarcasm when “You have to be at work in 15 minutes and your friend just accidentally locked the keys in the car”). The subscales of this measure have been shown to be reliable using Cronbach’s alpha (general sarcasm, $\alpha = .79$, face-saving, $\alpha = .71$, embarrassment diffusion, $\alpha = .64$, and frustration diffusion, $\alpha = .47$; Ivanko et al., 2004). Furthermore, self-reported use of verbal irony on the SSS has been shown to predict participants’ use of irony in a production task (Ivanko et al., 2004).

Verbal Irony Appreciation Task

To assess verbal irony appreciation, I showed participants twelve 30-second videos, clipped from popular North American television shows filmed in the 1990s: Seinfeld, Friends, and Frasier (please see Appendix for the full video scripts). These clips were used by Krygier-Bartz and Glenwright (2022) and comprised less than 10% of each episode, therefore adhering to the Fair Dealing policy of the University of Manitoba Copyright Guidelines. The clips were sorted into groups containing four statement types: ironic criticisms (e.g., “That was the best part? Good honeymooning, tiger” implying the honeymoon was less than ideal), literal criticisms (e.g., “Oh, you are a petty man” in response to immature behaviour), ironic compliments (e.g., “Kind of brutal, weren’t you?” to someone who just performed a kind gesture), and literal compliments (e.g., “You’re quite breathtaking” said to a beautiful woman). Thus, the correct interpretation of scenarios presented in the videos required recognition of verbal irony in both positive and negative contexts. To avoid providing an extra contextual cue to participants, the

laugh tracks immediately following the ironic or literal utterance were removed. Participants answered 4 questions in writing after watching each video:

1. *Speaker belief*: This question addressed whether the participant understood the speaker's utterance as literal or ironic (e.g., “Did Rachel believe what she said to Ross when she said: ‘Oh, you are a petty man’?”). Participants chose between “Yes” and “No.”
2. *Speaker attitude*: This question examined the participant's interpretation of how nice or mean the speaker was trying to be (e.g., “How nice or mean was Rachel trying to be when she said: ‘Oh, you are a petty man’?”). Participants indicated their response on a 6-point Nice/Mean Scale with the response options very nice, nice, a little bit nice, a little bit mean, mean, and very mean.
3. *Speaker humour*: This question assessed the participant's interpretation of how funny or serious the speaker was trying to be (e.g., “How funny or serious was Rachel trying to be when she said: ‘Oh, you are a petty man’?”). The response options for the Funny/Serious Scale included very funny, funny, a little bit funny, a little bit serious, serious, and very serious.
4. *Effect on addressee*: This question asked the participant how they would imagine the addressee felt about themselves after the comment (e.g., “How good or bad did Ross feel about himself after Rachel said: ‘Oh, you are a petty man’?”). Participants recorded their answer using the Good/Bad Scale, which included the response options very good, good, kind of good, kind of bad, bad, and very bad.

Procedure

Participants were tested in groups ranging from 1 to 11 individuals, depending on the testing session for which they signed up (i.e., each session was open to a maximum of 20

participants). Data were collected in a classroom containing a large projector screen visible to everyone. After completing a consent form, each participant was given a response booklet. To maintain as much consistency between individuals as possible, I asked participants not to flip each booklet page until instructed. I first asked them to complete the demographic questionnaire, the IRI, and the SSS. Once all participants had completed these measures, I proceeded with showing them the 12 videos, one at a time. The order in which the experimental videos were presented was counterbalanced between data collection sessions to reduce any influence this may have had on interpretation. After each video, I instructed participants to answer the corresponding questions in their booklets. The order of the response options on the Nice/Mean, Funny/Serious, and Good/Bad Scales was reversed for half of the videos to minimize any biased response patterns. Participants were provided time to write, and I proceeded only when it was clear they had completed writing their responses. After participants watched all 12 videos and answered all corresponding questions, they were debriefed regarding the true nature of the study and thanked for their participation. This procedure took approximately 50 minutes to complete.

Coding

Participant-level scores were calculated for all questionnaire and task variables. IRI and SSS subscale scores were calculated as the sum of participants' responses to the relevant items for each subscale (i.e., with the appropriate IRI items reverse scored). Mean speaker-belief accuracy ratings were calculated as the proportion of ironic clips (i.e., out of six trials including three ironic criticisms and three ironic compliments) for which participants correctly answered the speaker belief question (i.e., Did the speaker believe what they said to the addressee?) by choosing "No." For the speaker attitude, speaker humour, and addressee-effect ratings,

participants' responses were coded from 1 to 6 (1 = very nice, very funny, or very good; 6 = very mean, very serious, or very bad), and scores were averaged across the relevant statement types.

Results

The primary analyses were conducted using multiple linear regression. For the verbal irony production predictions, relevant IRI subscale scores were examined as predictors of the SSS subscale scores. For the verbal irony appreciation predictions, relevant IRI subscale scores were examined as predictors of speaker belief accuracy for ironic criticisms and ironic compliments, and as predictors of speaker attitude, speaker humour, and addressee-effect scores for ironic criticisms. The primary analyses focused on ironic statements because the hypotheses concerned verbal irony comprehension and appreciation. Follow-up exploratory analyses were conducted using paired-samples t-tests to compare participants speaker-belief accuracy and appreciation ratings across statement types. Specifically, ironic statements were compared to their literal counterparts, and ironic criticisms were compared to ironic compliments. Missing data were handled using model-specific listwise deletion, such that participants were included in analyses for which they had complete data on the relevant variables. All statistical analyses were performed using IBM SPSS Statistics (Version 29.0.2.0).

Preliminary Analyses

Missing data were handled using model-specific listwise deletion; analytic sample sizes therefore varied across models from $N = 111$ to $N = 114$ (see Tables 4 and 6). Descriptive statistics and internal consistency estimates for the IRI and SSS subscales are presented in Table 2. Internal consistency was acceptable for all IRI and SSS subscales (α s = .74–.83), with the exception of the frustration diffusion subscale, which demonstrated questionable internal consistency ($\alpha = .68$).

Assumptions were evaluated prior to interpreting the primary and exploratory analyses. For regression models involving continuous outcomes (i.e., SSS subscales scores, speaker attitude ratings, speaker humour ratings, and addressee-effect ratings), residual-versus predicted plots did not suggest serious violations of linearity or homoscedasticity, and histograms and normal P–P plots did not suggest serious violations of residual normality. The speaker attitude and addressee-effect models contained studentized deleted residuals slightly exceeding ± 3 ; however, Cook's distance values were low across models, suggesting that no cases exerted undue influence on the results. The speaker-belief accuracy model showed stronger deviations from residual normality, likely due to the bounded nature of the accuracy scores calculated from six binary trials. Therefore, this model was interpreted cautiously.

Across the regression models, Durbin–Watson values ranged from 1.63 to 2.04, suggesting that the independence of errors assumption was met. For models with more than one predictor, VIF values ranged from 1.07 to 1.16, and tolerance values ranged from .86 to .93, indicating no concerns regarding multicollinearity among predictors. Although one case showed a relatively elevated Cook's distance value (i.e., .253) in the General Sarcasm model, Cook's distance values remained below 1.00 across all regression models. A sensitivity analysis excluding this case did not change the pattern of results, thus all cases were retained.

For the paired-samples t-tests, difference scores between ironic criticisms and ironic compliments were examined using histograms, normal probability plots, and boxplots. Difference scores showed no severe departures from normality. Although a small number of outlying difference scores were observed, no extreme outliers were identified, and the paired-samples t-tests were retained.

Primary Analyses on Self-Reported Verbal Irony Production

Bivariate correlations between participants' empathy subscale scores and their sarcasm use subscale scores are shown in Table 3. As illustrated, none of the relationships were significant, and all associations were small in magnitude. Absolute correlation coefficients ranged from .01 to .13, with all 95% confidence intervals including zero.

A series of four linear regressions were performed to see if empathy subscale scores could predict each sarcasm use subscale (see Table 4). I first examined whether participants' perspective taking scores and empathic concern scores would uniquely predict their general sarcasm use scores according to my hypotheses. When participants' perspective taking scores and empathic concern scores were simultaneously entered into a multiple regression analysis, the model was not significant, $F(2, 108) = 0.17, p = .842, R^2 = .003$. Contrary to my hypotheses, neither perspective taking scores nor empathic concern scores significantly predicted general sarcasm use scores.

The second linear regression examined whether participants' empathic concern scores and personal distress scores would uniquely predict their self-reported use of sarcasm for embarrassment diffusion purposes. Simultaneous entry of empathic concern scores and personal distress scores into the multiple regression analysis did not result in a significant model, $F(2, 110) = 0.79, p = .457, R^2 = .014$. Furthermore, neither empathic concern scores nor personal distress scores were significant predictors of embarrassment diffusion scores.

Next, I tested my prediction that participants with higher levels of individual empathic concern would be more likely to report using sarcasm for frustration diffusion. However, empathic concern was not a significant predictor of self-reported use of sarcasm for frustration diffusion purposes, $F(1, 112) = 0.06, p = .804, R^2 = .001$, and thus this prediction was unsupported. Finally, I examined whether personal distress scores predicted scores for face-

saving sarcasm use. Contrary to my hypothesis, this model was also non-significant, $F(1, 110) = 1.92, p = .168, R^2 = .017$.

Primary Analyses on Verbal Irony Appreciation

Bivariate correlations between mean empathy subscale scores and mean scores on measures of irony appreciation are shown in Table 5. Speaker belief accuracy was calculated for ironic criticisms and ironic compliments combined because this analysis examined whether perspective taking and fantasy subscale scores were associated with the general ability to identify ironic speaker beliefs. The attitude, humour, and addressee-effect outcomes were restricted to ironic criticisms according to the hypotheses concerning evaluations of ironic criticisms. As illustrated, none of the relationships were significant, and all associations were small in magnitude. Absolute correlation coefficients ranged from .03 to .14, with all 95% confidence intervals including zero.

To test my hypotheses for verbal irony appreciation, four linear regressions were performed on empathy subscale scores (see Table 6). I first examined whether perspective taking scores and fantasy scores would uniquely predict mean accuracy in interpreting the speaker's belief for ironic criticisms and ironic compliments combined. Contrary to my hypothesis, a multiple regression analysis in which perspective taking scores and fantasy scores were simultaneously entered resulted in a non-significant model, $F(2, 110) = 0.45, p = .640, R^2 = .008$.

Next, I examined whether participants' empathic concern and personal distress scores would uniquely predict their mean ratings of speaker attitude, speaker humour, and/or the effect on the addressee after viewing clips in which a speaker directs an ironic criticism toward an addressee. Using three separate linear regressions, empathic concern scores and personal distress scores were entered simultaneously for each multiple regression analysis. Failing to support my

predictions, all three regressions resulted in non-significant models, including mean ratings of speaker attitude, $F(2, 110) = 1.14, p = .323, R^2 = .020$, speaker humour, $F(2, 110) = 0.42, p = .658, R^2 = .008$, and effect of the comment on the addressee, $F(2, 110) = 0.43, p = .650, R^2 = .008$, in response to observing an ironic criticism.

Exploratory Analyses for Ironic and Literal Statements

Paired-samples t-tests were conducted to compare ironic criticisms with literal criticisms and ironic compliments with literal compliments on the three appreciation ratings including speaker attitude, speaker humour, and effect on addressee. Higher attitude scores reflected greater perceived meanness (vs. niceness), higher humour scores reflected greater perceived seriousness (vs. humour), and higher addressee-effect scores reflected a more negative (vs. positive) perceived effect on the addressee. Participants rated the speaker's attitude as significantly meaner for literal criticisms ($M = 4.45, SD = 0.54$) than for ironic criticisms ($M = 4.05, SD = 0.46$), $t(114) = -6.66, p < .001, d = -0.62$. As expected, they also rated the speaker's humour as funnier for ironic criticisms ($M = 2.63, SD = 0.66$) than for literal criticisms ($M = 4.86, SD = 0.73$), $t(114) = -27.02, p < .001, d = -2.52$. Participants' responses also reflected that they perceived literal criticisms ($M = 4.12, SD = 0.44$) as having a worse effect on the addressee than ironic criticisms ($M = 3.71, SD = 0.43$), $t(114) = -8.45, p < .001, d = -0.79$. Participants rated the speaker's attitude for literal compliments ($M = 2.10, SD = 0.56$) as significantly nicer than for ironic compliments ($M = 2.94, SD = 0.65$), $t(114) = 10.55, p < .001, d = 0.98$. Speaker humour for ironic compliments ($M = 2.45, SD = 0.66$) was rated as significantly funnier than for literal compliments ($M = 3.67, SD = 0.75$), $t(114) = -13.81, p < .001, d = -1.29$. Finally, participants rated literal compliments ($M = 2.03, SD = 0.52$) as having a better effect on the addressee than ironic compliments ($M = 3.02, SD = 0.56$), $t(114) = 16.17, p < .001, d = 1.51$.

Overall, these findings indicate that participants' evaluations of speaker attitude, humour, and the perceived effect on the addressee demonstrated that they could distinguish ironic statements from literal ones.

Exploratory Analyses for Ironic Criticisms and Ironic Compliments

To further examine participants' interpretations of different forms of verbal irony, paired-samples t-tests were conducted to compare speaker belief accuracy and appreciation ratings for ironic criticisms and ironic compliments. Mean accuracy scores reflected participants' proportion of correct responses to the speaker belief question across ironic criticism and ironic compliment trials. Participants were significantly more accurate at determining the speaker's belief for ironic criticisms ($M = 0.85$, $SD = 0.26$) than for ironic compliments ($M = 0.79$, $SD = 0.22$), $t(114) = 2.37$, $p = .020$, $d = 0.22$. Regarding the appreciation outcomes, participants rated the speaker's attitude as significantly meaner for ironic criticisms ($M = 4.05$, $SD = 0.46$) than for ironic compliments ($M = 2.94$, $SD = 0.65$), $t(114) = 14.70$, $p < .001$, $d = 1.37$. Ironic criticisms were rated as significantly more serious ($M = 2.63$, $SD = 0.66$) than ironic compliments ($M = 2.45$, $SD = 0.66$), $t(114) = 2.59$, $p = .011$, $d = 0.24$. Finally, participants rated ironic criticisms as having a more negative effect on the addressee ($M = 3.71$, $SD = 0.43$) than ironic compliments ($M = 3.02$, $SD = 0.56$), $t(114) = 10.45$, $p < .001$, $d = 0.97$. This pattern of results suggests that participants' irony comprehension and appreciation of speaker attitude, humour, and the perceived effect on the addressee were dependent on the form of verbal irony presented.

Discussion

In this study, I aimed to determine whether various components of empathy could predict both self-reported verbal irony production and verbal irony appreciation. However, contrary to

my predictions, there were no meaningful associations between the four empathy subscales and the self-report verbal irony production or appreciation measures within the current sample.

Empathy and Self-Reported Verbal Irony Production

The eight primary hypotheses of this study were not supported by the findings. Participants' self-reported tendencies to use sarcasm for general purposes was not predicted by their scores on the perspective-taking or empathic concern subscales of the IRI. Neither participants' empathic concern scores nor their personal distress scores on the IRI were significant predictors of their use of sarcasm for embarrassment diffusion purposes. Furthermore, participants' empathic concern scores were not associated with their reported use of sarcasm for frustration diffusion, and their scores on personal distress were not predictive of their use of sarcasm in face-saving social contexts.

The absence of significant relationships between empathy and self-reported sarcasm use for different social functions may reflect meaningful differences between the specific constructs examined and methods used in the present study and those emphasized in previous research. For instance, much of the previous work discussed focused on individual traits or constructs that are related but not identical to empathy, such as emotional intelligence (e.g., Bajerski, 2016), humour styles and related traits (e.g., Brunsch & Ruch, 2017), or other personality traits and social tendencies (e.g., Gibbs & Colston, 2012). Moreover, the differing approaches to operationalizing and measuring verbal irony production across studies may have contributed to these disparate findings. Several of the previous studies that examined empathy-related traits in relation to verbal irony production primarily described significant findings regarding irony used for negative purposes, such as ironic criticisms (e.g., Bajerski, 2016; Brunsch & Ruch, 2017; Fanslau et al., 2023). However, the SSS was used to estimate verbal irony production in the

current study, in which none of the four subscales directly corresponds to irony used for critical purposes (i.e., with the exception of one specific item on the general sarcasm subscale). This discrepancy may have contributed to the lack of significant associations between empathy and self-reported verbal irony production in the current study, as the empathically driven reluctance to criticize others ironically that has been suggested by previous researchers may not extend to other forms of verbal irony use (e.g., for embarrassment diffusion purposes). Thus, although it is theoretically reasonable to speculate an association between empathy and verbal irony production, the apparent inconsistencies between the current findings and those of previous research may be due to the variability of the specific constructs being examined.

Another important consideration regarding the non-significant relationships between empathy and self-reported verbal irony production in the current study is the complicated nature of social and communicative behaviours. Verbal irony can serve playful, polite, humorous, or hostile interpersonal functions (Krygier-Bartz & Glenwright, 2022), which suggests that different individual and social dispositions may be important in determining verbal irony use for different purposes. For example, Gibbs and Colston (2012) discussed various individual-difference traits that influence figurative language use including openness and cognitive flexibility, while Bruntsch and Ruch (2017) highlighted the effects of humour-related traits (i.e., Katagelasticism, or the enjoyment of ridiculing and laughing at others, and trait seriousness) on irony use. Taken together, these findings suggest that although empathy may play some role in verbal irony production, the specific components of empathy measured by the IRI may account for a relatively small amount of variance in the ironic functions assessed by the SSS once other individual, social, and situational factors are considered.

Empathy and Verbal Irony Appreciation

In regard to the four verbal irony appreciation hypotheses, participants' perspective-taking and fantasy IRI scores did not significantly predict their accuracy in interpreting verbal irony for both criticisms and compliments. Additionally, participants' empathic concern and personal distress scores were not predictive of their ratings of speaker attitude, speaker humour, and addressee-effect after viewing clips involving ironic criticisms.

Similar to the empathy-verbal irony production findings, the non-significant associations between empathy and verbal irony appreciation in the current study should also be considered in the context of meaningful variation in how both constructs have been operationalized across studies. Some researchers employed unidimensional empathy measures (i.e., Nicholson et al., 2013), and others found associations between irony appreciation and empathy-related constructs such as emotional intelligence (i.e., Jacob et al., 2016), or social skills and emotional decoding (i.e., Amenta et al., 2013). The current study separated empathy into four factors that are likely related to but conceptually distinct from the variables highlighted in these studies, which may rely on other social abilities and tendencies such as emotion recognition or integration of verbal and nonverbal cues. Furthermore, approaches to conceptualizing and measuring verbal irony comprehension vary significantly across studies, including asking participants to decide whether a speaker was nice or mean using binary response options (i.e., Nicholson et al., 2013), process incongruent stimuli and categorize an ironic speaker's emotional expressions (i.e., Jacob et al., 2016), or rate written statements by degrees of irony (i.e., Amenta et al., 2013). Although these outcomes are conceptually related to identifying ironic speech, they are not identical to the binary speaker-belief question used in the current study. This may imply that the seemingly inconsistent findings regarding accuracy in irony interpretation between the literature and in the current study may in fact be examining separable processes, including but not limited to

detecting ironic intent, decoding speaker emotion, and comprehending written narratives. These processes do not fully or directly correspond to the appreciation outcomes in the current study, which included speaker belief judgments as well as ratings of speaker attitude, speaker humour, and effects of the irony on the addressee. Therefore, in the context of previous research connecting empathy and related traits to verbal irony interpretation, the non-significant findings in the current study may suggest that empathy is more strongly related to certain components of irony processing, such as emotional decoding or integrating social cues, than to the appreciation outcomes measured in the present research.

Beyond the variation in specific constructs used to examine empathy and verbal irony comprehension and appreciation, there are also notable differences in participant populations and task demands that may help contextualize the disparate findings. For instance, some studies focused on participant samples including children (i.e., Nicholson et al., 2013) or clinical populations (i.e., Amenta et al., 2013; Shamay-Tsoory et al., 2005). It may be the case that relative to nonclinical adult samples, associations are more detectable during the developmental period during which children learn to interpret irony, or in clinical samples of individuals with functional impairments. Moreover, the present study's video-based task presented a wide range of social situations and provided participants access to contextual, vocal, and visual cues. This may have facilitated interpretation relative to stimuli used by other researchers, consisting of intentionally ambiguous dialogue (i.e., Sparks et al., 2010) or utterances closely matched in linguistic context (i.e., Jakobson et al., 2018) such that participants must rely on a more restricted subset of cues to infer the speaker's intended meaning. Increased cue availability may have allowed participants in the present study to interpret ironic statements without a strong reliance

on self-reported empathy. However, task difficulty was not experimentally compared across studies, and this interpretation should thus be regarded as speculative.

Statement Type Differences in Verbal Irony Appreciation

Exploratory analyses were conducted to investigate patterns in the data not directly addressed by the primary hypotheses. Specifically, participants' appreciation responses were compared to assess differences in mean ratings between ironic criticisms and literal criticisms, between ironic compliments and literal compliments, and between ironic criticisms and ironic compliments. These analyses allowed the literal statements to function as control comparisons to contextualize participants' appreciation responses to the ironic statements and provided insight regarding how individuals appreciate both positive and negative forms of verbal irony.

The exploratory analyses indicated that participants distinguished ironic statements from literal statements on each of the three appreciation rating outcomes. Relative to literal criticisms, ironic criticisms were perceived as less mean, less serious, and as having a less negative effect on the addressee. Furthermore, participants provided different ratings for literal compliments and ironic compliments; specifically, ironic compliments were rated as relatively less nice, funnier, and as having a less positive effect on the addressee. These differences in participants' speaker attitude and speaker humour ratings for ironic and literal statements are consistent with those reported by Krygier-Bartz and Glenwright (2022). The addressee-effect item was not used by Krygier-Bartz and Glenwright (2022) but was added to the current study design as it was hypothesized to be related to empathy. The differences in responses to all three appreciation outcomes align with perspectives such as the tinge hypothesis (Dews & Winner, 1995) and politeness theory (Brown & Levinson, 1987), which view verbal irony as a communicative tool used by speakers to soften the effects of evaluative statements on the addressee.

Despite the lack of significant associations between empathy subscales and verbal irony outcomes, participants showed systematic differences in how they responded to appreciation measures to the two ironic statement types. This suggests that relative to individual differences in social tendencies and behaviours, the specific communicative functions served by different forms of irony may have a stronger effect on verbal irony appreciation. When asked whether the speaker believed what they said after viewing videos depicting either ironic criticisms or ironic compliments, participants were more likely to correctly identify ironic criticisms as verbal irony relative to ironic compliments (i.e., more likely to select “No” in response to the speaker belief question for ironic criticisms). Expectedly, participants rated the speaker’s attitude as meaner for ironic criticisms than for ironic compliments. Regarding speaker humour, participants’ responses indicated that they perceived the speaker’s intention as more serious for ironic criticisms than for ironic compliments. These findings are in contrast to Krygier-Bartz and Glenwright (2022), who described no significant difference in speaker belief accuracy, speaker attitude ratings, or speaker humour ratings between the two ironic statement types using the same stimuli for the appreciation task. However, this previous research examined differences in verbal irony appreciation between native and non-native English speakers, and the authors noted that overall speaker-belief accuracy was higher for native (i.e., relative to non-native) English speakers, which may help account for the disparate findings. Furthermore, responses unsurprisingly suggested that participants in the current study perceived ironic criticisms as having a more negative effect than ironic compliments on the addressee. The significant differences in participants’ appreciation responses to ironic criticisms and ironic compliments highlight the importance of considering various forms of verbal irony when examining irony appreciation as a primary outcome variable. Given the variance in participants’ evaluations of the two ironic

statement types, the decision to separate ironic criticisms and ironic compliments for the primary analyses in the current study was supported.

Strengths and Limitations

Several features of the current methodological design strengthened the study. The use of multidimensional self-report measures allowed empathy and verbal irony production to be examined as complex constructs rather than as single traits. The distinctions between irony comprehension and perceived speaker attitude, speaker humour, and effects on the addressee also strengthened the appreciation task by reducing reliance on any one indicator of irony comprehension or appreciation. Additionally, the inclusion of both ironic criticisms and ironic compliments as stimuli for the irony appreciation measures also allowed for a detailed analysis of response differences across forms of irony with different interpersonal functions. Furthermore, the current experimental methodology enhanced ecological validity through the use of videos for the verbal irony appreciation task, which provided cues often present in everyday verbal irony use (e.g., speaker prosody and facial expressions).

The current study design also posed certain limitations that restrict both the conclusions which can be drawn from the findings and their generalizability. Firstly, there were a limited number and range of ironic stimuli for the speaker-belief and appreciation-based analyses. Overall speaker belief accuracy was calculated using participants' responses to six clips including three ironic criticisms and three ironic compliments. The primary appreciation outcomes including ratings of speaker attitude, speaker humour, and effect on addressee were based on responses to only the three ironic criticisms. Consequently, participants' scores may have been influenced by responses to individual clips and may not have been a sufficiently reliable estimate of broader tendencies for irony appreciation. The small stimulus set in the

current study may thus be insufficient to account for various factors that influence irony appreciation, such as different vocal or facial cues, different levels of contextual ambiguity, or different relationships between speaker and addressee. Furthermore, much of the previous literature reviewed focused on ironic criticisms, which is not directly accounted for by any of the SSS subscales. This implies that any association between empathy and ironic criticisms may have remained undetected within the broader irony uses measured by the SSS. The self-report nature of both the IRI and the SSS also rely on participants' insight into their own tendencies and behaviours and therefore may be inaccurate estimates of behaviour in real interactions or be influenced by response biases such as socially desirable responding. However, these measures are widely used and accepted within empathy and verbal irony research, respectively. Finally, participants in the current study were not asked to report mental health or neurodevelopmental diagnoses. This minimized the collection of sensitive health information but also did prevented examination of whether characteristics of specific disorders associated with empathy or social communication (e.g., autism spectrum disorder, personality pathology) may play a role in individual verbal irony production and appreciation.

Implications and Future Directions

Although the absence of statistically significant findings limits the current study's contribution to the literature on empathy and verbal irony, the multidimensional study design helps clarify the limits of a general empathy–verbal irony connection. The lack of meaningful associations given this nuanced design suggests that self-reported empathy alone may not predict the outcomes examined in the current study. It may be the case that other individual and social factors such as such as personality, humour styles, sensory processing sensitivity, communicative tendencies, and emotional intelligence influence the production and appreciation of verbal irony.

Future research would benefit from examining the interactions between empathy and other theoretically relevant variables to provide a detailed picture of the complicated factors that influence individuals' engagement with non-literal language. In addition, to reduce the influence of biased responding due to self-report measures, future studies could also combine methods of measurement by integrating participants' SSS scores with irony generation tasks, naturalistic observations of communication, or informant reports. This would allow for a clearer understanding of the effect of empathy on verbal irony production in different contexts and for different purposes. Future study designs that include a larger and more varied set of ironic criticism and ironic compliment trials (i.e., relative to the three of each type used in the current study) may also better reflect the diverse effects of situational variables on irony appreciation. These may include varying degrees of hostility or playfulness, different vocal or facial cues provided, or different relationships between speakers. By considering these factors, the generalizability of the findings to everyday social interactions would be increased. Furthermore, the differences in participants' responses to the ironic criticism and ironic compliment stimuli highlight the importance of including different types of verbal irony as well as different aspects of irony processing when investigating individual irony appreciation.

In addition to providing useful directions for future research, the findings have practical implications in the fields of social and clinical psychology. According to Joergensen et al. (2022), we must investigate the complexities of social communication to help individuals who have difficulty interpreting indirect language. Given that ironic criticisms and ironic compliments were processed differently, it is important in applied settings for individuals to consider the interpersonal function and surrounding context of the verbal irony, which is often more informative than the presence of irony itself. Recognition of the various aspects of irony

appreciation (i.e., interpreting speaker belief, speaker attitude, speaker humour, and effect on addressee) is also relevant for clinical practice, as it suggests that recognition of an ironic statement does not necessarily determine how an individual will judge the social functions and impact of the situation. Given that nuanced language such as irony may be used to explore complex and abstract ideas with clients (Belkin, 2023), these findings are relevant for clinical assessment, therapeutic practice, psychoeducation, and general interpersonal communication. Although irony can be a useful communicative tool that facilitates social interaction, clinicians using ironic language with clients should avoid assuming that their intended attitude, humour, or effect of the irony will be correctly inferred, and should check for understanding when the meaning may be ambiguous. Overall, this would enhance therapists' ability to build and maintain a strong therapeutic alliance, one of the strongest predictors for effective therapy outcomes (Martin & Johnson, 2024).

Conclusion

Although the current study did not detect significant associations between self-reported empathy and verbal irony production or interpretation, the nuanced study design integrating various aspects of each construct provides some insight into the previously mixed findings in the literature. The findings suggest that the components of empathy as measured by the IRI may not be strong independent predictors of self-reported verbal irony use or the verbal irony outcomes assessed in the current study. The differences observed in participants' appreciation responses between ironic criticisms and ironic compliments highlight the importance of distinguishing forms of verbal irony rather than viewing it as a single category. Overall, these findings emphasize the value of examining empathy, verbal irony production, and verbal irony appreciation as multidimensional constructs.

References

- Ackerman, Brian P. 1983. Form and function in children's understanding of ironic utterances. *Journal of Experimental Child Psychology* 35. 487-508.
- Aguert, M. (2021). Paraverbal expression of verbal irony: Vocal cues matter and facial cues even more. *Journal of Nonverbal Behavior*, 46(1), 45–70. <https://doi.org/10.1007/s10919-021-00385-z>
- Amenta, S., Noël, X., Verbanck, P., & Campanella, S. (2012). Decoding of emotional components in complex communicative situations (irony) and its relation to empathic abilities in male chronic alcoholics: An issue for treatment. *Alcoholism: Clinical and Experimental Research*, 37(2), 339–347. <https://doi.org/10.1111/j.1530-0277.2012.01909.x>
- Bajerski, M. (2016). “I understand you, so I’ll not hurt you with my irony”: Correlations between irony and emotional intelligence. *Psychology of Language and Communication*, 20(3), 235–254. <https://doi.org/10.1515/plc-2016-0015>
- Brown, P., & Levinson, S. C. (1987). *Politeness*. New York: Cambridge University Press.
- Bruntsch, R., & Ruch, W. (2017). The role of humor-related traits and broad personality dimensions in irony use. *Personality and Individual Differences*, 112, 139–143. <https://doi.org/10.1016/j.paid.2017.03.004>
- Clark, H. H., & Gerrig, R. J. (1984). On the pretense theory of irony. *Journal of Experimental Psychology: General*, 113(1), 121–126. <https://doi.org/10.1037//0096-3445.113.1.121>
- Colston, H. L., & O’Brien, J. (2000). Contrast and pragmatics in figurative language: Anything understatement can do, irony can do better. *Journal of Pragmatics*, 32(11), 1557–1583. [https://doi.org/10.1016/s0378-2166\(99\)00110-1](https://doi.org/10.1016/s0378-2166(99)00110-1)

- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*, 10, 85.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037//0022-3514.44.1.113>
- Depow, G. (2021). The experience of empathy in everyday life. *PsycEXTRA Dataset*. <https://doi.org/10.1037/e510932022-001>
- Dews, S., & Winner, E. (1995). Muting the meaning a social function of irony. *Metaphor and Symbolic Activity*, 10(1), 3–19. https://doi.org/10.1207/s15327868ms1001_2
- Duan, C., & Hill, C. E. (1996). The current state of empathy research. *Journal of Counseling Psychology*, 43(3), 261–274. <https://doi.org/10.1037//0022-0167.43.3.261>
- Eisenberg, N., & Miller, P. A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101(1), 91–119. <https://doi.org/10.1037//0033-2909.101.1.91>
- Fanslau, A., Kałowski, P., Olech, M., Rowicka, M., Branowska, K., Olechowska, A., Zarazińska, A., Siemieniuk, A., & Banasik-Jemielniak, N. (2023). Dark Triad predictors of irony and sarcasm use: An investigation in a Polish sample. *Personality and Individual Differences*, 214, 112344. <https://doi.org/10.1016/j.paid.2023.112344>
- Gibbs, R. W., & Colston, H. L. (2012). *Interpreting figurative meaning*. Cambridge University Press.
- Glenwright, M., Parackel, J. M., Cheung, K. R., & Nilsen, E. S. (2013). Intonation influences how children and adults interpret sarcasm. *Journal of Child Language*, 41(2), 472–484. <https://doi.org/10.1017/s0305000912000773>

- Hall, J. A., & Schwartz, R. (2018). Empathy present and future. *The Journal of Social Psychology, 159*(3), 225–243. <https://doi.org/10.1080/00224545.2018.1477442>
- Ivanko, S. L., Pexman, P. M., & Olineck, K. M. (2004). How sarcastic are you? *Journal of Language and Social Psychology, 23*(3), 244–271.
<https://doi.org/10.1177/0261927x04266809>
- Jacob, H., Kreifelts, B., Nizielski, S., Schütz, A., & Wildgruber, D. (2016). Effects of emotional intelligence on the impression of irony created by the mismatch between verbal and nonverbal cues. *PLOS ONE, 11*(10). <https://doi.org/10.1371/journal.pone.0163211>
- Jakobson, L. S., Pearson, P. M., Kozub, Z., Hare, C., & Rigby, S. N. (2018). Links between traits associated with the broad autism phenotype and empathy and young adults' ability to decode speaker intentionality. *Research in Autism Spectrum Disorders, 50*, 11–21.
<https://doi.org/10.1016/j.rasd.2018.03.001>
- Joergensen, G. H., Makarla, P. R., Fammartino, M., Benson, L., & Rothermich, K. (2022). No, no one had fun. Individual differences in nonliteral language perception. *Language and Speech, 65*(2), 290–310. <https://doi-org.uml.idm.oclc.org/10.1177/00238309211010859>
- Kałowski, P., Zajączkowska, M., Branowska, K., Olechowska, A., Siemieniuk, A., Dryll, E., & Banasik-Jemieliński, N. (2023). Individual differences in verbal irony use: A systematic review of Quantitative Psycholinguistic Studies. *Metaphor and Symbol, 38*(1), 81–111.
<https://doi.org/10.1080/10926488.2022.2160253>
- Katz, A. N., & Lee, C. J. (1993). The role of authorial intent in determining verbal irony and metaphor. *Metaphor and Symbolic Activity, 8*(4), 257–279.
https://doi.org/10.1207/s15327868ms0804_1

- Krygier-Bartz, M., & Glenwright, M. (2022). Verbal irony comprehension in adults who speak English as an additional language. *Studies in Linguistics and Literature*, 6(2).
<https://doi.org/10.22158/sll.v6n2p58>
- Kumon-Nakamura, S., Glucksberg, S., & Brown, M. (1995). How about another piece of PIE: The allusional pretense theory of discourse irony. *Journal of Experimental Psychology: General*, 124(1), 3–21. <https://doi.org/10.1037//0096-3445.124.1.3>
- Martin, D. G. & Johnson, E. A. (2024). *Counseling and Therapy Skills*, 5th Ed. Waveland.
- Nicholson, A., Whalen, J. M., & Pexman, P. M. (2013). Children's processing of emotion in ironic language. *Frontiers in Psychology*, 4. <https://doi.org/10.3389/fpsyg.2013.00691>
- Pfeifer, V. A., & Pexman, P. M. (2023). When it pays to be insincere: On the benefits of verbal irony. *Current Directions in Psychological Science*, 33(1), 43–50.
<https://doi.org/10.1177/09637214231205312>
- Pulos, S., Elison, J., & Lennon, R. (2004). The hierarchical structure of the interpersonal reactivity index. *Social Behavior and Personality: An International Journal*, 32(4), 355–359. <https://doi.org/10.2224/sbp.2004.32.4.355>
- Quaranta, D., Di Tella, S., Cassano, V., L'Abbate, F., Bruno, M., Gaudino, S., Panfili, M., Silveri, M. C., & Marra, C. (2023). Neural correlates of empathy in mild cognitive impairment. *Cognitive, Affective, & Behavioral Neuroscience*, 24(1), 171–183.
<https://doi.org/10.3758/s13415-023-01146-9>
- Rockwell, P. (2000). Lower, slower, louder: Vocal cues of sarcasm. *Journal of Psycholinguistic Research*, 29(5), 483–495. <https://doi.org/10.1023/A:1005120109296>
- Schrooten, I., & de Jong, M. D. (2017). If you could read my mind: The role of healthcare providers' empathic and communicative competencies in clients' satisfaction with

consultations. *Health Communication*, 32(1), 111–118.

<https://doi.org/10.1080/10410236.2015.1110002>

Shamay-Tsoory, S. G., Tomer, R., Berger, B. D., Goldsher, D., & Aharon-Peretz, J. (2005).

Impaired “affective theory of mind” is associated with right ventromedial prefrontal damage. *Cognitive and Behavioral Neurology*, 18(1), 55–67.

<https://doi.org/10.1097/01.wnn.0000152228.90129.99>

Smith, J., & Glenwright, M. (2025). The importance of intonation for children’s understanding of verbal irony. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1672104>

Sparks, A., McDonald, S., Lino, B., O’Donnell, M., & Green, M. J. (2010). Social cognition, empathy and functional outcome in Schizophrenia. *Schizophrenia Research*, 122(1–3), 172–178. <https://doi.org/10.1016/j.schres.2010.06.011>

Sperber, D., & Wilson, D. (1981). Irony and the use-mention distinction. P. Cole (Ed.), *Radical pragmatics*, 295–318. New York: Academic Press.

Spotorno, N., Koun, E., Prado, J., Van Der Henst, J.-B., & Noveck, I. A. (2012). Neural evidence that utterance-processing entails mentalizing: The case of irony. *NeuroImage*, 63(1), 25–39. <https://doi.org/10.1016/j.neuroimage.2012.06.046>

Taylor, C. (2017). The relationship between irony and sarcasm: Insights from a first-order metalanguage investigation. *Journal of Politeness Research*, 13(2). <https://doi.org/10.1515/pr-2015-0037>

Table 1*Participant Demographics*

Demographic	<i>n</i>	%
Gender		
Man	44	38.3
Woman	69	60.0
“Prefer not to say”	2	1.7
Ethnicity		
Arab / West Asian	5	4.3
Black	16	13.9
East Asian	4	3.5
Latinx	1	0.9
Indigenous	14	12.2
South Asian	9	7.8
South East Asian	25	21.7
White / European	40	34.8
“Prefer not to say”	1	0.9

Note. The final sample included 115 participants, ranging in age from 18 to 37 years old ($M = 19.02$, $SD = 2.11$). Self-reported gender and ethnicity are shown, with the number of participants in each category and the percentage of the category within the total sample. Participants were provided with open-ended self-describe options for gender and ethnicity, but no participants selected these options.

Table 2*Descriptive Statistics for Empathy Subscale Scores and Sarcasm Use Subscale Scores*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	α
IRI – Perspective Taking	113	25.4	4.3	.76
IRI – Fantasy	114	24.3	4.8	.74
IRI – Empathic Concern	114	26.9	4.5	.80
IRI – Personal Distress	113	19.3	4.8	.80
SSS – General Sarcasm	112	28.9	6.7	.83
SSS – Face-Saving	113	9.4	4.4	.77
SSS – Embarrassment Diffusion	115	10.0	5.2	.83
SSS – Frustration Diffusion	115	12.6	4.7	.68

Note. IRI = Interpersonal Reactivity Index; SSS = Sarcasm Self-Report Scale. IRI subscales each included seven items and had possible scores ranging from 7 to 35. The SSS General Sarcasm subscale included six items and had possible scores ranging from 6 to 42. The SSS Face-Saving, Embarrassment Diffusion, and Frustration Diffusion subscales each included three items and had possible scores ranging from 3 to 21.

Table 3*Bivariate Correlation Coefficients for Empathy Subscale Scores and Sarcasm Use Subscale**Scores*

	r	p	95% Confidence Intervals	
			Lower	Upper
Perspective Taking—Fantasy	.262	.005	.081	.426
Perspective Taking—Empathic Concern	.367	<.001	.196	.517
Perspective Taking—Personal Distress	-.117	.221	-.296	.071
Fantasy—Empathic Concern	.376	<.001	.206	.524
Fantasy—Personal Distress	.321	<.001	.144	.477
Empathic Concern—Personal Distress	.350	<.001	.177	.503
Perspective Taking—General Sarcasm	-.033	.734	-.218	.155
Perspective Taking—Embarrassment Diffusion	.067	.481	-.119	.249
Perspective Taking—Frustration Diffusion	-.074	.434	-.256	.112
Perspective Taking—Face-Saving	-.015	.873	-.200	.171
Fantasy—General Sarcasm	.087	.364	-.101	.268
Fantasy—Embarrassment Diffusion	-.084	.375	-.264	.102
Fantasy—Frustration Diffusion	-.006	.948	-.190	.178
Fantasy—Face-Saving	.006	.951	-.179	.190
Empathic Concern—General Sarcasm	-.057	.550	-.240	.130
Empathic Concern—Embarrassment Diffusion	-.074	.436	-.254	.112
Empathic Concern—Frustration Diffusion	.024	.804	-.161	.207
Empathic Concern—Face-Saving	-.046	.628	-.229	.140
Personal Distress—General Sarcasm	-.100	.297	-.281	.088
Personal Distress—Embarrassment Diffusion	-.114	.231	-.292	.073
Personal Distress—Frustration Diffusion	-.043	.654	-.226	.143
Personal Distress—Face-Saving	-.131	.168	-.309	.056
General Sarcasm—Embarrassment Diffusion	.468	<.001	.310	.602
General Sarcasm—Frustration Diffusion	.563	<.001	.421	.678

General Sarcasm—Face-Saving	.656	<.001	.535	.751
Embarrassment Diffusion—Frustration Diffusion	.462	<.001	.305	.595
Embarrassment Diffusion—Face-Saving	.580	<.001	.443	.691
Frustration Diffusion—Face-Saving	.469	<.001	.311	.602

Table 4

Linear Regression Analyses on Mean Empathy Subscale Scores Predicting Mean Sarcasm Use Subscale Scores

Variable	B	SE	95% CI	β	<i>p</i>
<u>General Sarcasm Use (<i>N</i> = 111)</u>					
Constant	31.359	4.645	[22.152, 40.565]	-	<.001
Perspective Taking	-.022	.161	[-.342, .298]	-.014	.891
Empathic Concern	-.073	.152	[-.375, .229]	-.050	.633
<u>Embarrassment Diffusion (<i>N</i> = 113)</u>					
Constant	13.304	3.164	[7.034, 19.575]	-	<.001
Empathic Concern	-.044	.117	[-.276, .188]	-.038	.709
Personal Distress	-.110	.111	[-.329, .109]	-.100	.323
<u>Frustration Diffusion (<i>N</i> = 114)</u>					
Constant	11.914	2.669	[6.626, 17.202]	-	<.001
Empathic Concern	.024	.098	[-.169, .218]	.024	.804
<u>Face-Saving (<i>N</i> = 112)</u>					
Constant	11.821	1.725	[8.404, 15.239]	-	<.001
Personal Distress	-.120	.087	[-.292, .052]	-.131	.168

Note. Ns for sarcasm use subscales differ due to missing data.

Table 5*Bivariate Correlation Coefficients for Empathy Subscale Scores and Mean Irony Appreciation**Measure Scores*

	r	p	95% Confidence Intervals	
			Lower	Upper
Perspective Taking—Mean Speaker Belief Accuracy	.090	.346	-.097	.270
Perspective Taking—Mean Attitude Ratings	-.121	.200	-.299	.065
Perspective Taking—Mean Humour Ratings	-.102	.282	-.281	.084
Perspective Taking—Mean Addressee-Effect Ratings	-.082	.387	-.263	.104
Fantasy— Mean Speaker Belief Accuracy	.032	.739	-.153	.214
Fantasy—Mean Attitude Ratings	-.043	.653	-.225	.142
Fantasy—Mean Humour Ratings	-.123	.192	-.300	.062
Fantasy—Mean Addressee-Effect Ratings	-.083	.377	-.263	.102
Empathic Concern— Mean Speaker Belief Accuracy	.076	.422	-.110	.256
Empathic Concern—Mean Attitude Ratings	-.135	.153	-.311	.050
Empathic Concern—Mean Humour Ratings	-.088	.353	-.267	.098
Empathic Concern—Mean Addressee-Effect Ratings	.025	.794	-.160	.208
Personal Distress— Mean Speaker Belief Accuracy	.034	.723	-.152	.217
Personal Distress—Mean Attitude Ratings	-.094	.322	-.274	.092
Personal Distress—Mean Humour Ratings	-.041	.668	-.224	.145
Personal Distress—Mean Addressee-Effect Ratings	.088	.353	-.098	.269
Mean Speaker Belief Accuracy— Mean Attitude Ratings	.206	.027	.024	.375
Mean Speaker Belief Accuracy— Mean Humour Ratings	-.158	.091	-.332	.025
Mean Speaker Belief Accuracy— Mean Addressee-Effect Ratings	-.039	.679	-.221	.145
Mean Attitude Ratings— Mean Humour Ratings	-.058	.540	-.238	.127
Mean Attitude Ratings— Mean Addressee-Effect Ratings	.150	.110	-.034	.324
Mean Humour Ratings— Mean Addressee-Effect Ratings	.098	.299	-.087	.276

Note. Speaker Belief Accuracy reflects mean accuracy across ironic criticisms and ironic

compliments combined. Attitude, Humour, and Addressee-Effect Ratings reflect mean ratings for

ironic criticisms only, based on the relevant hypotheses. Intercorrelations among IRI subscales are reported in Table 3.

Table 6*Linear Regression Analyses on Empathy Subscale Scores Predicting Mean Irony Appreciation**Measure Scores*

Variable	B	SE	95% CI	β	<i>p</i>
<u>Mean Speaker Belief Accuracy for Ironic Criticisms and Ironic Compliments Combined (<i>N</i> = 113)</u>					
Constant	.708	.129	[.452, .964]	-	<.001
Perspective Taking	.004	.004	[-.005, .013]	.087	.377
Fantasy	.000	.004	[-.008, .008]	.009	.930
<u>Mean Attitude Ratings for Ironic Criticisms (<i>N</i> = 113)</u>					
Constant	4.451	.274	[3.909, 4.993]	-	<.001
Empathic Concern	-.012	.010	[-.032, .009]	-.115	.258
Personal Distress	-.005	.010	[-.024, 0.14]	-.054	.594
<u>Mean Humour Ratings for Ironic Criticisms (<i>N</i> = 113)</u>					
Constant	2.978	.400	[2.184, 3.771]	-	<.001
Empathic Concern	-.012	.015	[-.041, .017]	-.082	.419
Personal Distress	-.002	.014	[-.029, 0.26]	-.012	.907
<u>Mean Addressee-Effect Ratings for Ironic Criticisms (<i>N</i> = 113)</u>					
Constant	3.565	.262	[3.045, 4.085]	-	<.001
Empathic Concern	-.001	.010	[-.020, .019]	-.006	.956
Personal Distress	.008	.009	[-.010, .026]	.090	.376

Appendix

Verbal Irony Appreciation Task Video Scripts

Ironic Criticisms

1. Kramer is preparing a sandwich in Jerry's kitchen area.

KRAMER: Uhh, Jerry, you got no mustard, huh...

JERRY: It's on the door.

KRAMER: (examining a yellow squeeze bottle) What, this yellow stuff? No, I said mustard, Jerry. Dijon.

KRAMER: Ah, it's no good. No. That's bush league.

JERRY: Hey, hey. Wait... what, you're gonna leave it there? That's like half a pound of turkey!

KRAMER: No, no, I can't eat that. You can't eat a sandwich without Dijon.

JERRY: *Yeah, you're right. I really should keep more of your favorites on hand.*

2. Monica and Chandler are returning from their honeymoon.

PHOEBE: So how was the honeymoon?

MONICA: Oh, so much fun. But the best part is, we met this incredible couple on the way back.

PHOEBE: That was the best part? (To Chandler) *Good honeymooning, tiger.*

3. Lilith is visiting Martin and Frasier.

LILITH: Martin, I'm especially delighted to see you here tonight.

MARTIN: Oh yeah?

LILITH: Oh yes. Knowing as I do the history of your relationship with Frasier, when I heard that he'd taken you in, I immediately flipped to the weather channel to see if hell had indeed frozen over.

MARTIN: *Frasier, how'd you ever let this little peach get away?*

Literal Criticisms

1. George is eating a dip at a party.

TIMMY: What are you doing?

GEORGE: What?

TIMMY: Did...did you just double-dip that chip?

GEORGE: Excuse me?

TIMMY: You double-dipped the chip!

GEORGE: "Double-dipped"? What are you talking about?

TIMMY: You dipped the chip, you took a bite, and you dipped again.

GEORGE: So...?

TIMMY: *That's like putting your whole mouth right in the dip!*

2. Ross and Rachel are arguing after breaking up.

ROSS: No!! You know, you know, don't do me any favors. In fact, where, where's the rest of my stuff?! Huh? Like-like my umm, (picks up a book) Hey, this book is mine!!

And, and, and, and that T-shirt you sleep in? I'd like that back too. Yes, I do.

RACHEL: You know how much I love that T-shirt! You never even wore that T-shirt!

ROSS: I'm just trying to help you, move on.

RACHEL: *Oh, you are a petty man.*

3. Martin, Niles and Frasier are eating at a restaurant.

MARTIN: Great service, huh?

NILES: Yes. With any luck we should be completing our dining experience in less than twenty minutes.

WAITRESS: If you're not ready I could put this under the heat lamp...

FRASIER: Oh no, no-no, that won't be necessary young lady, I'm as ready as I'll ever be...

WAITRESS: Alright. Let me know if I can get you anything else.

FRASIER: Yes, thank you.

MARTIN: *You could be a little nicer to the waitress.*

Ironic Compliments

1. Niles is waiting in line at a coffee shop.

BARISTA: Who's next here?

WOMAN: (cutting off Niles) I am! I'll have a cafe...

NILES: Oh, oh, oh, oh! No, you're not! You weren't next here, I am! I suppose people like you who glide through life wrapped in a cozy little cocoon of narcissism never notice such things. But you'd do well to learn this lesson, sister! There's still such a thing as good manners in this world, and that's why I would like to insist that you let me buy you your coffee and also please try the poppy seed muffins.

WOMAN: Thank you.

NILES: You're welcome.

FRASIER: *Kind of brutal, weren't you?*

2. Elaine and Ben are eating at a restaurant.

ELAINE: So do most doctors like ER or do you guys just think it's fake?

BEN: I couldn't tell you. You know, I'm not really a doctor.

ELAINE: *Oh, yeah. And I'm not really attracted to you.*

3. Chandler is talking through a closed door to Monica.

CHANDLER: Oh you got a wedding dress? That's great!

MONICA: Yeah but I'm not keeping it.

CHANDLER: Well then why can't I see it?

MONICA: Oh. I guess you can. Okay but; I... I have to return it, so you can't like it.

CHANDLER: Okay I promise. I'll-I'll hate it. (She enters.) Wow! You, you look...hideous.

MONICA: Really?

CHANDLER: *Yeah, that's like the most ugliest dress I've ever seen.*

Literal Compliments

1. Ross and Rachel are arguing.

ROSS: And then, we could've gone from the ceremony to the reception with you in the sidecar!

RACHEL: Ross, it just wouldn't have been feasible.

ROSS: But having a dove place the ring on your finger would've been no problem?

RACHEL: *It was really fun being married to you tonight.*

2. Martin is showing off his new suit.

FRASIER: Well, we were on our way to Armani, when dad spotted this in the window of a discount clothing store.

MARTIN: It's sharkskin! Look at the way it changes color when I move my arm!

DAPHNE: (to Martin) *You're going to be the handsomest gent at your friend's retirement party.*

3. Carol is introducing Dr. Feffa and her baby to Elaine.

CAROL: Elaine! (Elaine enters) This is our pediatrician, Ben Feffa.

ELAINE: Hi.

CAROL: Look at him, Elaine. How gorgeous is he? I ask you, how gorgeous? (pointing at the newborn)

ELAINE: Pretty gorgeous.

BEN: Elaine, you have children?

ELAINE: Me? Oh no, but I'd love to have a baby, I mean, I can't wait to have a baby. I'm just dying to have a baby.

BEN: A beautiful woman like you should. *You're quite breathtaking.*