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THE ROLE OF INDIVIDUAL DIFFERENCES AND SITUATIONAL FACTORS IN PERCEPTION OF VERBAL IRONY

A study was conducted to analyze the influence of situational and individual factors on verbal irony perception. Participants ($N = 144$) rated smartness, criticality, humorousness, and offensiveness of ironic utterances and their literal equivalents. The utterances were put in various contexts, differing in terms of the structure of the interlocutors' social ranks and the responsibility of the addressee for the described event. Additionally, participants' state and trait of anxiety were measured using the Polish adaptation of the State-Trait Anxiety Inventory (Wrześniewski, Sosnowski, Jaworowska, & Fecenec, 2011) and their social competences were measured with the Social Competences Questionnaire (Maczak, 2007). Analyses showed that the structure of the interlocutors' social ranks, the addressee's responsibility, as well as the state and trait of anxiety can influence the perception of irony, although it does not always concern all of the variables rated herein. No link between social competences and irony perception was found.

Key words: verbal irony, communication, individual differences, anxiety, social competences, social ranks

Introduction

What is Irony?

According to ancient conceptions, irony occurs when that which is uttered contradicts the real, hidden meaning of an utterance (Lapp, 1992). Thus, the ironist says something different than she thinks. She criticizes using false praise and praises using false criticism. On top of that, in the classical view, every utterance that ridicules or mocks might be treated as ironical (Lapp, 1992).

Similarly, traditional conceptions of irony – in line with naive, laic ideas about it – most often focus on the opposition between what is said and what is intended (see e.g., Grice, 1975; Searle, 1979; Sperber & Wilson, 1981). However, latest theories abandon the aforementioned opposition as a necessary condition to consider an utterance ironic (see e.g., Kumon-Nakamura, Glucksberg, & Brown, 1995; Wilson & Sperber, 1992). Despite the great amount of differing definitions, most of theoreticians of irony characterise it by such features as duality of meaning, intentionality, and context dependence (Banasik, 2013).

Research revealed that irony can be found in 7–8% of conversational turns between friends (Gibbs, 2000; Tannen, 1991). The most prototypical form of irony is ironic criticism (Schwoebel, Dews, Winner, & Srinivas, 2000): While what is said sounds positive, the intended meaning is negative and critical, like when a wife tells her husband that she had a great time right after they come back from an extremely boring meeting. We can find ironic criticism in such linguistic forms as antiphrases, understatements, hyperboles, rhetorical questions, and others (Gibbs, 2000; Wilson & Sperber, 1992). An especially sharp form of ironic criticism is called sarcasm. Sarcastic irony always has a victim (Gibbs, 1986) while milder ironical remarks often refer only to a situation (e.g., the weather). Apart from ironic criticism, we can also distinguish ironic compliments, as when a speaker conveys a positive meaning using negative words (Kreuz & Glucksberg, 1989).

What is Irony for?

Literal language is not always sufficient in everyday communication and, as mentioned above, it is quite often replaced with irony. However, it is also true that, due to its ambiguity, irony might very easily lead to misunderstandings (Colston, 1997). What makes us use this non-literal figure of speech despite the obvious risks? Researchers and theoreticians point out that irony can serve different functions than literal language used in the same or analogous circumstances, for example, humour, self-protection, expression of positive emotions, saving face by the speaker or by the addressee, exposing emotional self-control, saving the relationship between the interlocutors, or strengthening the bonds between them (Brown & Levinson, 1987; Clark & Gerrig, 1984; Dews & Winner, 1995; Dews, Kaplan, & Winner, 1995; Jorgensen, 1996; Kreuz, Long, & Church, 1991; Roberts & Kreuz, 1994).

Research by Dews et al. (1995) revealed that ironic criticism is perceived as funnier and less insulting than its literal equivalent. Based on those results, the authors created the *tinge hypothesis*, claiming that the positive meaning of a sentence tinges the interpretation of irony and, this way, its negative tone is being mitigated (Dews et al., 1995). One possible explanation for ironic criticism being perceived as less aggressive or critical is its indirect form, which makes it seem less threatening compared to direct criticism (Brown & Levinson, 1987).

Thanks to the ambiguity of irony, it is the addressee who chooses how to interpret an utterance while the speaker is, in a way, released from the responsibility for the results that her words bring about. If the recipient of irony feels offended, the speaker may retreat by saying that the interpretation was wrong or turn the whole situation into a joke (Anolli, Infantino, & Ciceri, 2001; Brown & Levinson, 1987, Dews et al., 1995). This way, the superficial kindness of ironical language can help avoid an open conflict (Brown & Levinson, 1987).

However, it is commonly assumed that irony is an especially stinging form of criticism, more offensive and aggressive than literal criticism is (Schwoebel et al., 2000). Dews et al. (1995) suggested that irony might seemingly strengthen the power of criticism because of the contrast between what is said and the intended meaning, which highlights the distance between the factual and the expected state of affairs. This view is similar to the view of Colston (1997), whose research confirmed that irony might enhance the negativity of an utterance. Later, Toplak and Katz (2000), based on their own research, also concluded that sarcasm is more likely to enhance rather than reduce criticism carried by a statement.

Based on the existing research and theoretical reflections, the functions of irony might easily be divided into positive (such as mitigating the message's negativity, saving faces and relations, releasing the tension, jocularity and humour, etc.) and negative (making the negative message stronger, more critical, offensive, aggressive, etc.). Simply because ironic criticism might serve such diverse goals, it should be possible to identify factors that make a speaker use it with a specific intention, having certain influences on a recipient (Colston, 1997). Several such factors have already been discovered. For example, Colston (1997) revealed that irony seems less condemning when a recipient is not responsible for the situation and more condemning when a speaker is not guilty of the criticised behaviour.

Another factor that might influence the perception of irony is the structure of the interlocutors' social ranks. The shape of each discourse depends on who is talking to whom, the situation they are in, and their objectives (Grabias, 1994). It seems obvious that the speaker has to adjust not only to the intellectual abilities of their listener, but also to their age and position in the social hierarchy. Participants of any discourse can either be equal or form an inferiority–superiority relation. Such a structure is one of the most important factors influencing communication (Grabias, 1994). Irony is a linguistic tool that we use in conversations both with friends, superiors, and inferiors. It can be expected that irony used among colleagues serves different goals than irony used in a conversation with a superior or a subordinate. Perception and social functions of irony might be dependent especially on such a symmetry–asymmetry of the interlocutors' social ranks. On the one hand, it might seem that in a situational context characterized by non-equal statuses of interlocutors, one has to be extremely careful when it comes to using irony. On the other

hand, irony might serve as one of the few acceptable ways to criticize a person standing higher in the social hierarchy. An ironic remark might be treated as a misunderstanding, turned into a joke, or ignored, thus serving a face-saving function. Using literal criticism would not give such options and could be seen as highly improper in a context of conflict between a superior and an inferior. In this view, irony helps reach communication goals in an acceptable, more subtle and diplomatic, way (Anolli et al., 2001).

Research on Individual Differences in Irony

Research shows that gender is one of the factors significantly influencing the usage and evaluation of irony. Gibbs (2000) revealed that men used sarcasm almost twice as often as women. Colston and Lee (2004) presented scenarios in which characters of an unknown gender used sarcastic remarks in a negative context. Both male and female participants assessed that speakers were more likely men than women. Also, self-assessment showed that men are more likely to use irony (Colston & Lee, 2004). Differences in irony usage between men and women were also revealed in an investigation by Lampert and Ervin-Tripp (2006); Milanowicz (2013); and Recchia, Howe, Ross, & Alexander (2010). Milanowicz showed, for example, that while men associate irony with more positive functions, such as introducing humour, alleviating criticism, or bonding, women see it as more negative, for example, as a tool to express anger or complain. Milanowicz also investigated the connection between irony and intelligence and discovered that participants who considered themselves more ironical had, at the same time, better results on a nonverbal intelligence scale in comparison with people who rated themselves as nonironical or barely ironical. It seems worthy to seek a connection between other individual traits and irony.

This paper sought to investigate a possible connection between irony and social competences due to the link between irony, *theory of mind* (ToM), emotional intelligence, and social intelligence. ToM is the ability to comprehend what is happening in our and in somebody else's mind, thanks to which people are able to understand intentions and see things from others' perspective (Premack & Woodruff, 1978). It is suspected that similar mechanisms stand behind ToM and verbal irony comprehension (Banasik, 2013). There are studies proving the role of ToM as a basis for ironical communication (e.g., Sullivan, Winner, & Hopfield, 1995). ToM is strictly connected with social intelligence and social cognition. This particular property of the human mind develops under social influence and is susceptible to it (Kurcz, 2005). ToM is also closely connected with emotional intelligence (Goleman, 1995, 1998; Kurcz, 2005). In turn, emotional intelligence makes grounds for the development of social competences, understood here as complex abilities acquired during socialization that condition the functioning of a person in diverse social situations (Matczak, 2007; Matczak & Knopp, 2013). The connection between emotional

intelligence and social competences might be due to shared mechanisms of forming and development (Matczak & Knopp, 2013). Social activity is a practice field for both emotional intelligence and social competences, but also, thanks to it, ToM evolves in socialization. The connections one can find between irony, ToM, emotional and social intelligence, and social competences form a basis for an assumption that people with different social competences have differing abilities to recognize and interpret irony.

Another factor that might be connected with irony perception is anxiety. According to Spielberger (1966), the *state of anxiety* is a consciously experienced, subjective feeling of fear or tension, connected with an arousal of the autonomous nervous system. The *trait of anxiety* is an acquired behavioural disposition to perceive diverse, objectively harmless situations as threatening and to react to them with an inappropriately strong state of anxiety (Spielberger, 1966). Both people suffering from anxiety disorders and healthy individuals experiencing high anxiety are proven to be susceptible to diverse cognitive distortions (Hayes & Hirsch, 2007). They focus on threatening stimuli in their environment more often (Mathews & Mackintosh, 1998) and in the face of emotionally ambiguous situations or information, more often interpret them as threatening and evaluate them more negatively (Hayes & Hirsch, 2007; Mathews & Mackintosh, 1998). Additionally, high anxiety is connected with lowered capacity of operational memory because worrying is said to be taking up part of its limited resources (Hayes & Hirsch, 2007). Therefore, highly anxious people who are met with an ambiguous ironical statement might perceive it as more negative and, additionally, as a result of lowered operational memory capacity, might ignore situational factors that otherwise could have changed their negative interpretations. Higher anxiety might help explain why, as is shown by research, irony is evaluated more negatively by adult women – females are generally more anxious than males (Milanowicz, 2013; Wrześniewski, Sosnowski, Jaworowska, & Fecenec, 2011).

Method

The aim of this study was to investigate the influence of situational factors and individual differences on verbal irony perception. Specifically, the objective was to examine whether irony perception depends on (a) the structure of the interlocutors' social ranks (the speaker's status being superior, inferior, or equal to the addressee's status), (b) the responsibility of the addressee for a negative event (addressee responsible vs. random event), (c) participants' state and trait of anxiety, and (d) participants' social competences.

It was hypothesized that, in general, ironic utterances are perceived as more critical, offensive, humorous, and smart compared to their literal equivalents. Given existing research and theoretical reflections presented above, when situational factors are not accounted for, irony is most likely to be seen as

funnier and smarter than literal language. The situation seems more complicated when it comes to criticality and offensiveness ratings. Investigations by Dews et al. (1995) and Dews and Winner (1995) showed that irony can serve as protection and mitigate criticism but subsequent studies did not correspond to those results (Colston, 1997; Toplak & Katz, 2000). It seems likely that the tinge hypothesis (Dews et al., 1995) was confirmed mainly because its authors used recordings in which ironic utterances were given specific intonation that might have prompted interpretations consistent with the investigators' ideas (see Colston, 1997). Colston's (1997) study was textual and its participants could ascribe an intonation themselves, as they imagined the situation. In Colston's investigation, irony was seen as more condemning than literal language, so it seems likely that this is its most common use in natural discourse.

As to the structure of the interlocutors' social ranks, when said structure is asymmetrical, irony may serve mostly as a way to lighten the atmosphere, save face, or avoid punishment that could result from ineligible criticism (Anolli et al., 2001). In such cases, ironic criticism might even be taken literally: The recipient may either pretend not to have understood the irony, or might actually misinterpret it because of its ambiguity (Anolli et al., 2001). Thus, ironic criticism was expected to be perceived as more positive than its literal equivalent in the case of non-equal status, while for the symmetrical ranks, this effect was expected not to occur. Irony used by a superior was hypothesised to be perceived as more positive than when the interlocutors' statuses are equal because, in the latter case, the protective function of irony loses its importance: Literal criticism is acceptable and does not seem threatening. Irony used toward a superior was expected to be evaluated more negatively than in the case of symmetrical dyads or when directed at an inferior. Still, it was predicted to be seen as more positive compared to the literal equivalent because using the latter is a more direct violation of social norms.

Further predictions concerned the responsibility of the addressee for the negative event. It was expected that irony directed at a guilty addressee is seen as more critical, offensive, humorous, and smart than irony directed at an addressee that is not to be blamed for what happened. When somebody deserves to be criticized, using irony might be connected with a desire to enhance the criticism (Colston, 1997). Consequently, it might also be perceived as more offensive. Predicted lower humorousness and smartness of irony in the case of a random event is based on the assumption that in a situation when social norms dictate being compassionate and supportive, irony might be taken literally especially often. Also, once detected in such a situation, irony might be viewed as highly improper and hence be evaluated as unfunny and not so smart. When an addressee is guilty, irony might be treated as a clever, although mean, joke, proving the speaker's emotional distance and composure. That would make it seem funnier and smarter.

Based on the reflections presented earlier in this paper, it was also predicted that there are significant negative linear correlations between the perception of humorousness and smartness of irony and the participants' state and trait of anxiety as well as significant positive linear correlations between the perception of criticality and offensiveness of irony and participants' state and trait of anxiety – both generally and in specific situations. Firstly, anxiety may lead to a more negative perception of reality in general. Additionally, irony is an ambiguous stimulus, so its presence can raise even more concerns among anxious people. As a result, people with low anxiety levels were expected to rate criticality and offensiveness of irony as lower and its humorousness and smartness as higher than people with high anxiety.

It was also hypothesised that there are significant linear correlations between irony ratings and social competences. It was assumed that people with lower social competences have less diverse experiences and might associate irony mostly with meanness, which may result in perceiving it as more negative. However, people with low social competences might also more often mistake irony for nonirony, which could lead to viewing it in line with the literal meaning (positive in case of ironic criticism). This situation could lead to completely reversed results. People with higher social competences might also respect social norms to a higher degree. This may result in higher negative ratings of irony when the speaker is socially inferior to the addressee as well as when the addressee is not guilty of causing a negative event.

Materials and Procedure

Three self-report questionnaires were used. To measure social competences, understood as acquired skills conditioning effectiveness of functioning in social situations, the Social Competences Questionnaire (SCQ) was used (Matczak, 2007). The SCQ consists of 90 statements, 60 of which are diagnostic. The task is to rate how well one would manage in described situations or with described tasks on a 4-point scale, choosing from *definitely well*, *not badly*, *rather badly*, and *definitely badly*, earning from 1 to 4 points for each position (60 to 240 points in total, Matczak, 2007). Anxiety as a state and a trait was measured with the Polish adaptation of the State-Trait Anxiety Inventory (STAI, Wrześniewski et al., 2011). It consists of two scales: X-1, measuring anxiety as a state, and X-2, measuring anxiety as a trait. Each scale consists of 20 statements which have to be rated on 4-point scales (X-1: *definitely not*, *rather not*, *rather yes*, *definitely yes*; X-2: *almost never*, *sometimes*, *often*, *almost always*). Participants can score from 1 to 4 points for each answer (20 to 80 points per scale, Wrześniewski et al., 2011). In order to examine how participants perceive and evaluate ironic criticism, the Irony Perception Questionnaire (IPQ) was constructed. 24 stories were created, describing two events: being late for a meeting and trouble with writing or rating an assignment (12 stories for each event). The stories differed

in terms of the structure of the interlocutors' social ranks (the speaker's status being superior, inferior, or equal to the addressee's status), the responsibility of the addressee for the described negative event (addressee guilty vs. random event) as well as the type of the target utterance (ironic vs. literal). All stories were created in four subversions differing in terms of the interlocutors' gender. Additionally, 12 distractive stories were created in order to minimize negative effects connected with repeated measurement. In total, 108 descriptions were created and divided into three questionnaire versions, corresponding with the three groups to which participants were ascribed at random: (a) version R, in which the speaker's social rank was always equal to the addressee's social rank; (b) version N, in which the speaker is the addressee's superior; and (c) version P, with the speaker inferior to the addressee. Each version had four variations, differing in terms of interlocutors' genders. In summary, 12 variants of the questionnaire were constructed, each of them containing eight diagnostic scenes and four distracting scenes. In each of the variants one can find six target utterances that are literal and six that are ironic, six utterances to a guilty addressee and six to an innocent one, three utterances by a woman to another woman, three utterances by a man to a woman, three utterances by a woman to a man, and three utterances by a man to another man. The stories were put in a random order independently for each set. In the process of construction, each story was evaluated by competent judges (participants of a seminar course in irony) in terms of (a) the possibility of the described events occurring in reality, (b) irony of the target utterances, and (c) perceived responsibility of the addressees for the described events. Examples of stories, along with their translations, are presented in the Appendix. Below each story, four scales were put, each 10 cm long, on which participants were supposed to mark how smart, critical, humorous, and offensive the target utterances seemed to them (from *not at all* to *very*). An open-ended question about the speakers' intentions and a question about the relations between speaker and addressee with a 7-point scale (*hostile, definitely bad, rather bad, neutral, rather good, definitely good, and friendly*) were added below¹. The tasks were preceded by a written instruction. Participants were Polish-speaking university students of both genders, aged from 18 to 29 ($M = 20.40$). They were informed that the study concerned the social functions of language and were provided with an oral instruction about the procedure. The order of the questionnaires was fixed, with the STAI in the beginning, then the IPQ, and lastly – the SCQ. The questionnaires were filled in by 144 participants (104 women). Among them, 96 filled in all three, and 48 – two of them (the STAI and the IPQ).

Data Analysis and Results

In order to investigate the general predictions about irony perception, a series of paired-samples *t* tests was conducted. Firstly, ironic criticism

($M = 4.24$, $SD = 1.85$) was perceived as smarter than literal criticism ($M = 3.05$, $SD = 1.66$), $t(143) = 8.65$, $p < 0.001$, $d = 0.72$. As to humorousness, irony ($M = 3.20$, $SD = 1.94$) was seen as funnier than nonirony ($M = 2.06$, $SD = 1.57$), $t(143) = 8.11$, $p < 0.001$, $d = 0.68$. Criticality ratings of ironic statements ($M = 6.03$, $SD = 2.19$) were lower than in the case of literal statements ($M = 6.46$, $SD = 1.76$), $t(143) = -2.30$, $p < 0.05$, $d = 0.19$. Lastly, mean offensiveness of ironic criticism ($M = 4.67$; $SD = 2.20$) was not significantly different from mean offensiveness of literal criticism ($M = 4.64$, $SD = 2.00$), $t(143) = 0.16$. Means compared in the above analyses are presented in Table 1.

Table 1. Mean Ratings of Criticality, Offensiveness, Smartness, and Humorousness, Depending on the Utterance Type

The type of the utterance	Mean criticality	Mean offensiveness	Mean smartness	Mean humorousness
Ironic	6.03	4.67	4.24	3.20
Literal	6.46	4.64	3.05	2.06

In order to examine whether irony ratings differed when the structure of the interlocutors' social ranks was considered, a series of one-way analyses of variance (ANOVAs) was conducted. To analyse the ratings of criticality, Welch's test was used, showing significant differences between the compared means, $F(2, 91.62) = 3.56$, $p < 0.05$, $\eta^2 = 0.06$. Post hoc T2 Tamhane's comparisons revealed that irony was seen as significantly more critical in the case of the speaker's inferiority ($M = 6.51$, $SD = 2.17$) than in the case of speaker's superiority ($M = 5.30$, $SD = 2.47$), $p < 0.05$. The mean ratings of criticality in the case of the interlocutors' equality ($M = 6.28$, $SD = 1.70$) were not significantly different from the mean criticality ratings in the other groups. A one-way ANOVA conducted to compare the offensiveness ratings also showed significant differences between the groups differing in terms of social rank structure, $F(2, 141) = 9.52$, $p < 0.001$, $\eta^2 = 0.12$. Post hoc comparisons conducted with Bonferroni's test revealed that the mean offensiveness of irony in the case of the speaker's inferiority ($M = 5.50$, $SD = 1.96$) was significantly higher than the mean offensiveness in the case of the speaker's superiority ($M = 3.67$, $SD = 2.32$), $p < 0.001$, and the mean offensiveness in the case of the interlocutors' equal statuses ($M = 4.83$, $SD = 1.92$) was significantly higher than in the case of the speaker's superiority, $p < 0.05$. ANOVAs conducted for the smartness and the humorousness ratings did not show any significant results.

In order to investigate whether the addressee's responsibility for a negative event influences irony perception, a set of paired-samples *t* tests was conducted. Firstly, irony was perceived as smarter in the case of the addressee's guilt ($M = 5.01$, $SD = 2.22$), compared to a random event ($M = 3.47$, $SD = 2.02$), $t(143) = -8.84$, $p < 0.001$, $d = 0.74$. Also, ironic criticism was seen as funnier in the case of the addressee's guilt ($M = 3.86$, $SD = 2.44$) than in the case of a random event ($M = 2.55$, $SD = 1.98$), $t(143) = 3.96$, $p < 0.001$, $d = 0.32$. Lastly, irony was evaluated as more critical in the case of the addressee's guilt ($M = 6.38$, $SD = 2.22$) than in the case of a random event ($M = 5.68$, $SD = 2.62$), $t(143) = 7.28$, $p < 0.001$, $d = 0.61$. No significant differences were found between the ratings of offensiveness.

In order to explore possible interactions of situational factors, a series of univariate mixed-model ANOVAs was conducted, with Structure of the Interlocutors' Social Ranks (3) as a between-subject variable and Responsibility of the Addressee (2) as well as Type of Utterance (2) as within-subject variables. Analyses of the criticality ratings revealed significant main effects of addressee's responsibility, $F(1, 141) = 6.45$, $p < 0.05$, $\eta^2 = 0.04$, and utterance type, $F(1, 141) = 5.52$, $p < 0.05$, $\eta^2 = 0.04$. Utterances were evaluated as more critical when the recipient was responsible for the situation ($M = 6.43$, $SE = 0.14$) than when the situation was random ($M = 6.06$, $SE = 0.17$), and ironic statements ($M = 6.03$, $SE = 0.18$) were rated as less critical than their literal equivalents ($M = 6.46$, $SE = 0.15$). On top of that, three significant interaction effects were found: (a) an interaction between Type of Utterance and Structure of the Interlocutors' Social Ranks, $F(2, 141) = 3.98$, $p < 0.05$, $\eta^2 = 0.05$, (b) an interaction between Type of Utterance and Responsibility of the Addressee, $F(1, 141) = 10.02$, $p < 0.01$, $\eta^2 = 0.07$, and (c) an interaction between Type of Utterance, Responsibility of the Addressee, and Structure of the Interlocutors' Social Ranks, $F(2, 141) = 3.11$, $p < 0.05$, $\eta^2 = 0.04$. The interaction effect between Responsibility of the Addressee and Structure of the Interlocutors' Social Ranks was not significant. An analysis of simple main effects of the type of the utterance conducted for the groups differing in terms of the addressee's responsibility revealed that the difference between irony and its literal equivalent was significant only when the addressee was not responsible for the described event, in which case ironic criticism ($M = 5.68$, $SE = 0.21$) was rated as significantly less critical than literal criticism ($M = 6.43$, $SE = 0.19$), $p < 0.001$. An analysis of simple main effects of the type of the utterance conducted for the groups differing in terms of the structure of interlocutors' social ranks showed that the difference between irony and its literal equivalent was significant only when the speaker was superior to the addressee, in which case ironic criticism ($M = 5.30$, $SE = 0.31$) was rated as less critical than literal criticism ($M = 6.46$, $SE = 0.25$), $p < 0.001$. An analysis of simple main effects of the type of the utterance conducted for groups differing in terms of both addressee's responsibility and the structure of interlocutors' social ranks (3×2) revealed that the only significant difference between irony

Table 2. Mean Ratings of Criticality, Depending on the Utterance Type, the Addressee's Responsibility, and the Structure of the Interlocutors' Social Ranks

Speaker's rank	Responsibility	Utterance	Mean criticality rate
Superior	Addressee guilty	Ironic	5.85
		Literal	6.37
	Random event	Ironic	4.76
		Literal	6.54
Equal	Addressee guilty	Ironic	6.64
		Literal	6.29
	Random event	Ironic	5.92
		Literal	6.21
Inferior	Addressee guilty	Ironic	6.65
		Literal	6.80
	Random event	Ironic	6.37
		Literal	6.54

and its literal equivalent was found in the case of a superior speaker talking to an innocent addressee – ironic criticism was rated as less critical ($M = 4.76$, $SE = 0.37$) than literal criticism ($M = 6.54$, $SE = 0.32$), $p < 0.001$. The mean ratings of criticality compared above are presented in Table 2. The ANOVA conducted for the ratings of offensiveness revealed a significant main effect of responsibility of the addressee, $F(1, 141) = 12.09$, $p < 0.01$, $\eta^2 = 0.08$. The utterances were rated as more offensive when the addressee was not responsible for the event ($M = 4.96$, $SE = 0.17$) than when she/he was responsible for it ($M = 4.37$, $SE = 0.17$). An analysis showed a main effect of structure of the interlocutors' social ranks as well, $F(2, 141) = 9.86$, $p < 0.001$, $\eta^2 = 0.12$. Post hoc comparisons conducted with Bonferroni's test revealed that the utterances were rated as more offensive when the speaker was inferior to the addressee ($M = 5.48$, $SE = 0.25$) than when she/he was superior ($M = 3.90$, $SE = 0.25$, $p < 0.001$) or equal ($M = 4.59$, $SE = 0.25$, $p < 0.05$). The main effect of the type of utterance was not significant. Additionally, a significant interaction effect between Responsibility of the Addressee and Type of Utterance was found, $F(1, 141) = 10.74$, $p < 0.01$, $\eta^2 = 0.07$. The interaction between Responsibility of the Addressee and Structure of the Interlocutors' Social Ranks, as well as between all three factors, were not significant. An analysis of simple main effects of the type of the utterance conducted for groups differing in terms of the addressee's responsibility for

Table 3. Mean Ratings of Offensiveness, Depending on the Utterance Type, the Addressee's Responsibility, and the Structure of the Interlocutors' Social Ranks

Speaker's rank	Responsibility	Utterance	Mean offensiveness rate
Superior	Addressee guilty	Ironic	3.70
		Literal	3.49
	Random event	Ironic	3.65
		Literal	4.74
Equal	Addressee guilty	Ironic	4.55
		Literal	3.84
	Random event	Ironic	5.10
		Literal	4.87
Inferior	Addressee guilty	Ironic	5.43
		Literal	5.22
	Random event	Ironic	5.57
		Literal	5.68

the described event showed that the only significant difference between irony and its literal equivalent occurred in the case of the addressee's guilt: Ironic criticism was rated as more offensive ($M = 4.56$, $SE = 0.19$) than literal criticism ($M = 4.18$, $SE = 0.19$), $p < 0.05$. The mean ratings of offensiveness compared above are presented in Table 3. An analysis conducted to compare the ratings of smartness revealed significant main effects of responsibility of the addressee, $F(1, 141) = 117.30$, $p < 0.001$, $\eta^2 = 0.45$, and type of utterance, $F(1, 141) = 76.00$, $p < 0.001$, $\eta^2 = 0.35$. Irony was seen as smarter ($M = 4.24$, $SE = 0.15$) than nonirony ($M = 3.05$, $SE = 0.14$) and criticism directed at the guilty addressee ($M = 4.36$, $SE = 0.15$) was seen as smarter than in the case of a random event ($M = 2.94$, $SE = 0.14$). A main effect of structure of the interlocutors' social ranks was not found. No interaction effects proved to be significant. The mean ratings of smartness compared above are presented in Table 4. The ANOVA conducted in order to compare the ratings of humorousness revealed significant main effects of responsibility of the addressee, $F(1, 141) = 69.55$, $p < 0.001$, $\eta^2 = 0.32$, and type of utterance, $F(1, 141) = 64.93$, $p < 0.001$, $\eta^2 = 0.32$. Ironic criticism was seen as more funny ($M = 3.20$, $SE = 0.16$) than literal criticism ($M = 2.06$, $SE = 0.13$). Utterances in general were seen as more funny in the case of addressee's guilt ($M = 3.16$, $SE = 0.16$) compared to a random event ($M = 2.10$, $SE = 0.12$). A main effect of structure of the interlocutors' social ranks was not

Table 4. Mean Ratings of Smartness, Depending on the Utterance Type, the Addressee's Responsibility, and the Structure of the Interlocutors' Social Ranks

Speaker's rank	Responsibility	Utterance	Mean smartness rate
Superior	Addressee guilty	Ironic	5.50
		Literal	3.98
	Random event	Ironic	3.94
		Literal	2.43
Equal	Addressee guilty	Ironic	4.98
		Literal	3.81
	Random event	Ironic	3.23
		Literal	2.86
Inferior	Addressee guilty	Ironic	4.55
		Literal	3.33
	Random event	Ironic	3.24
		Literal	2.01

significant. A significant interaction effect between Type of the Utterance and Responsibility of the Addressee was revealed, $F(1, 141) = 5.05$, $p < 0.05$, $\eta^2 = 0.04$. An interaction effects between Structure of the Interlocutors' Social Ranks and Responsibility of the Addressee, Structure of the Interlocutors' Social Ranks and Type of the Utterance, as well as all three factors, were not significant. An analysis of simple main effects of the type of the utterance conducted for groups differing in terms of the addressee's responsibility showed that in the case of the addressee's guilt, ironic criticism ($M = 3.86$, $SE = 0.21$) was seen as significantly funnier than literal criticism ($M = 2.47$, $SE = 0.17$), $p < 0.001$. In the case of a random event, ratings of humorousness were also significantly higher for irony ($M = 2.55$, $SE = 0.17$) compared to non-irony ($M = 1.65$, $SE = 0.14$), $p < 0.001$. The difference revealed in the first case (1.39) was significantly bigger than in the latter (0.90). The mean ratings of humorousness compared above are presented in Table 5.

In order to investigate the connection between irony perception and anxiety, a series of Pearson's and Spearman's correlations was conducted. Out of 56 results, only eight proved to be significant. A significant positive correlation was found between the state of anxiety and general ratings of criticality of ironic statements, $r = 0.18$, $p < 0.05$. However, this relation cannot be considered linear due to a very low r value. It was also revealed that the state of anxiety

Table 5. Mean Ratings of Humorousness, Depending on the Utterance Type, the Addressee's, and the Structure of the Interlocutors' Social Ranks

Speaker's rank	Responsibility	Utterance	Mean humorousness rate
Superior	Addressee guilty	Irony	3.82
		Literal	2.29
	Random event	Irony	2.61
		Literal	1.79
Equal	Addressee guilty	Irony	3.99
		Literal	2.51
	Random event	Irony	2.52
		Literal	1.64
Inferior	Addressee guilty	Irony	3.76
		Literal	2.61
	Random event	Irony	2.51
		Literal	1.51

was negatively correlated with the ratings of smartness of irony in the situation where the speaker was equal to the addressee and the latter was not responsible for the described event, $r = -0.24$, $p < 0.05$. Significant positive correlations were found between: the state of anxiety and the ratings of criticality of ironic statements in the case when the speaker was equal to the addressee and the latter was not responsible for the described event ($r = 0.28$, $p < 0.05$), the state of anxiety and the ratings of offensiveness of irony when the speaker was equal to the addressee and the latter was not responsible for the described event ($r = 0.24$, $p < 0.05$), the state of anxiety and the ratings of criticality of irony when the speaker was superior to the addressee, and the latter was not guilty of causing the event ($r = 0.25$, $p < 0.05$), the trait of anxiety and the ratings of offensiveness of irony when the speaker was inferior to the addressee and the latter was responsible for the described event ($r = 0.49$, $p < 0.001$), the trait of anxiety and the ratings of offensiveness of irony when the speaker was inferior to the addressee and the latter was not guilty of causing the event ($r = 0.27$, $p < 0.05$), the trait of anxiety and the ratings of smartness of irony when the speaker was superior to the addressee and the latter was guilty of causing the event ($r = 0.31$, $p < 0.05$). To further explore the collected data, 36 participants with the highest and 36 participants with the lowest results were chosen (separately for the state and the trait of anxiety), retaining equal N, R, and P groups. This

way, 2 two-level variables were created. A series of univariate mixed-model ANOVAs was conducted, with Structure of the Interlocutors' Social Ranks (3) and Anxiety State Level (2) as between-subject variables, and Responsibility of the Addressee (2) as a within-subject variable. The first analysis showed a significant main effect of anxiety state level on the ratings of criticality of irony, $F(1, 66) = 3.60$, $p < 0.05$, $\eta^2 = 0.05$. Participants with low anxiety state level rated the criticality of irony significantly lower ($M = 5.63$, $SE = 0.40$) than participants with a high anxiety state level ($M = 6.70$, $SE = 0.40$). The interaction effects were not significant. Analyses conducted for the ratings of smartness, offensiveness, and humorousness showed no significant effects for the anxiety state level. Another set of univariate mixed-model ANOVAs was conducted, with Structure of the Interlocutors' Social Ranks (3) and Anxiety Trait Level (2) as between-subject variables, and Responsibility of the Addressee (2) as a within-subject variable. Analysis of the criticality ratings revealed the main effect of the anxiety trait level, $F(1, 66) = 3.73$, $p < 0.05$, $\eta^2 = 0.05$. Participants with high anxiety trait level rated the criticality of irony as higher ($M = 6.66$, $SE = 0.37$) than participants with low anxiety trait level ($M = 5.66$, $SE = 0.37$). The interaction effects were not significant. In analyses of the ratings of offensiveness, a main effect of anxiety trait level was revealed, $F(1, 66) = 4.64$, $p < 0.05$, $\eta^2 = 0.07$. Participants with low anxiety trait level rated offensiveness of irony as lower ($M = 4.13$, $SE = 0.36$) than participants with high anxiety trait level ($M = 5.22$, $SE = 0.36$). The interaction effects were not significant. Analyses conducted for the ratings of smartness and humorousness showed no significant effects in the case of anxiety trait level. To investigate whether similar effects could be found for the literal utterances, one-way ANOVAs were conducted, comparing the ratings of criticality and offensiveness of nonironical utterances between participants with high and low anxiety levels. No significant results were found.

In order to verify the hypotheses about connections between irony perception and social competences, a series of Pearson's and Spearman's correlations was conducted. Out of 28 results, none proved to be significant. To further explore the data, 36 participants with the lowest and 36 participants with the highest scores in the SCQ were chosen, retaining the equinumerosity of N, P, and R groups. This way, a two-level variable was created. A set of univariate mixed-model ANOVAs was conducted, with Structure of the Interlocutors' Social Ranks (3) and Level of Social Competences (2) as between-subject variables, and Responsibility of the Addressee (2) as a within-subject variable. No significant effects were found in either of four analyses.

Discussion

Analyses confirmed that some general properties of verbal irony perception exist. Firstly, ironic criticism was seen as funnier than literal criticism, in agreement

with the pre-existing research (Dews et al., 1995; Kreuz et al., 1991; Roberts & Kreuz, 1994) and predictions. Thus, irony seems to serve some positive functions. Inserting humour into critical utterances might result in lowering the addressees' anxiety and letting them know that what happened is irrelevant to the point that one can laugh about it (Dews et al., 1995). Humour in a context of conflict might serve to demonstrate emotional distance as well (Dews et al., 1995). The analyses showed that ironic criticism is not only seen as funnier but also as smarter than literal criticism, which makes it a perfect self-presentation tool. Ironic statements were also shown to be seen as less critical than literal ones, in line with the tinge hypothesis (Dews et al., 1995), which suggests that irony in most cases mitigates the criticism of the utterance, therefore playing a protective role. However, this effect was very weak. Based on the data discussed in this paragraph as a whole, irony is likely to be a good way to cope with difficult, unpleasant situations. It seems that, thanks to its properties, a speaker can express emotions in a nonthreatening way, which helps avoid an open conflict. She doesn't endanger herself or the recipient with losing face, protects their relationship, and at the same time demonstrates wit and composure.

The investigation revealed that the addressee's responsibility for the described negative event influenced the ratings of smartness, criticality, and humorousness of irony. For criticality ratings, the results were found to be in line with Colston's (1997). Irony was seen as more critical when the addressee was responsible for the described situation than in the case of a random event. On the one hand, a speaker using irony towards a guilty person might want to enhance the criticism of their utterance because the addressee deserves to be criticized. On the other hand, criticality of utterances might in general be perceived consistently with the gravity of the offense, which is heavier in the case of the addressee's wrongdoing. Lastly, irony might not so much strengthen the criticism in the case of the addressee's guilt as mitigate it in the case of a random event. Further analyses, exploring the interaction between the type of the utterance and the addressee's responsibility, showed that the criticality of irony was rated differently than its literal counterpart only when the addressee was a victim of a random event – ironic criticism was then seen as less critical than literal criticism. At the same time, irony was not seen as more critical than non-irony in the case of the addressee's guilt. The possible explanation is that, in line with the suggestion of Dews et al. (1995), when an addressee deserves to be criticised, an utterance might be seen more in line with the gravity of the offense. Thus, the differences between ironic and literal criticisms become insignificant. In this view, it doesn't matter which form is used to convey the criticism – if the addressee is guilty, the results are similar. If an addressee is not responsible for what happened, irony might be used to mitigate criticism, ease the tension, or save the addressee's face. It might save her from feelings of guilt and shame, and protect the relations between interlocutors (Dews et

al., 1995; Jorgensen, 1996). Direct criticism in such situations might be seen as thoughtless, unfair, and impolite (Jorgensen, 1996). This way, using irony, the speaker can express her feelings and attitudes towards the situation and at the same time can avoid endangering relations with the addressee and protect the addressee's face. The ironist herself might seem to be more composed and emotionally distanced, which in turn benefits self-presentation. It is likely to be so thanks to the ambiguity of irony. If the addressee is offended by the speaker, the latter might blame it on the wrong interpretation or turn her words into a joke. Furthermore, the addressee herself can pretend not to have understood the irony, or really misinterpret it because of the context unfavourable to such interpretation (Anolli et al., 2001; Brown & Levinson, 1987; Dews et al., 1995). Contrary to the results concerning criticality, the analysis of offensiveness ratings showed that irony was seen as more offensive than non-irony in the case of the addressee's guilt, while in the case of a random event, the offensiveness was rated similarly for both utterance types. Thus, even though irony doesn't seem to make criticism more critical when an addressee is guilty, its use in such situation might be justified by a desire to make the comment more insulting.

The analysis of interaction of utterance type and the addressee's responsibility revealed that ironic criticism is seen as funnier than literal criticism both in the case of the addressee's guilt and in the case of a random event, but the effect is significantly stronger in the first case. Irony seemed less funny when directed at an innocent recipient. It is likely that humour introduced in a situation in which something unpleasant happened to another person seems out of place. Showing compassion and understanding would be more in line with social norms. However, it is also possible that when being compassionate is expected, irony is simply misunderstood and taken literally and hence not perceived as funny. For the same reasons, irony might have seemed less smart in the case of a random event than in the case of the addressee's guilt, as the research showed. Irony directed at a guilty person might be viewed as clever, sharp humour and hence be perceived as funny and smart.

Analyses confirmed that the structure of the interlocutors' social ranks can influence irony perception. However, it was found to be true only for the ratings of criticality and offensiveness. Firstly, irony was rated as significantly less critical when the speaker was socially superior to the addressee than when the speaker was socially inferior. Secondly, perceived offensiveness of irony was significantly lower when the speaker was socially superior to the addressee than in both other cases. It seems likely that the speaker with the higher social status, who, according to social norms, is allowed to criticize the addressee directly but chooses to use irony, might do it to mitigate the criticism. Therefore, irony in the case of the speaker's social superiority can serve mainly as a protection of the interlocutors' faces or relations by reducing the negative impact of an utterance. It might be important particularly when a speaker

knows that she will continue cooperating with an addressee and does not want to negatively influence such cooperation. It was also revealed that irony is perceived as less critical than nonirony only when the speaker is socially superior to the addressee. Therefore, it seems that the protective functions of irony might have particular importance when an ironist talks to a person with a lower social status. However, it can also be the case that the socially superior speaker uses irony because she wants to be seen as more in control of her emotions, which would also explain such results and, again, prove that irony is valuable for one's self-presentation. A prediction that irony might serve as protection when it is directed at a social superior because it helps express negative emotions and attitudes despite social norms was not confirmed. Pexman and Olineck (2002) argued that the protective functions of irony can work only when the ironist's intentions are not entirely clear – when irony is too obvious, it cannot be ignored. However, using irony towards a superior is risky and might provoke very negative feelings in people rating it, because of a severe social norms violation that possibly cannot be ignored once detected. Thus, it seems likely that irony has to stay unnoticed in such cases. As to the case of the interlocutors' equality, irony was also seen as neither less nor more negative than non-irony. As explained earlier, the protective functions might lose their importance in this case, because criticism among people with the same social status is not often followed by very negative consequences, and social norms allow it. Hence, criticism might be evaluated more in line with the gravity of the offense. Further analysis of criticality ratings revealed an interaction effect of three factors, showing that ironic criticism was seen as less critical than literal criticism only when the speaker was superior to the addressee and when the latter was not responsible for the described event. Therefore, it seems that the situational scheme in which a person with the higher social rank talks to a victim of a random event particularly promotes using irony in order to protect relations, save face, lower the addressee's anxiety, or avoid an open conflict.

Seven significant linear correlations of anxiety and irony ratings were found, out of which six were in line with predictions. The only relation that reached moderate strength was a positive correlation of anxiety trait level with the offensiveness ratings in the situation where the speaker was socially inferior to the addressee responsible for the described event. People with higher anxiety trait levels are probably more afraid of criticizing their superiors in general and hence perceive such behaviour more negatively. Other positive correlations of anxiety with criticality and offensiveness ratings were found, as well as one negative correlation of anxiety and smartness ratings. Group comparisons revealed that people with high anxiety state and trait levels rated the criticality of ironic criticism significantly higher than people with low anxiety state and trait levels, and people with high anxiety trait levels also saw it as significantly more offensive. Those results are in line with predictions and might stem from

the fact that people with higher anxiety levels more often interpret reality as threatening, which can particularly concern ambiguous stimuli such as irony. It is worth adding that similar effects for the ratings of criticality and offensiveness of literal criticism were not found. The low amount of significant correlations, as well as their weakness, might be caused by the fact that the criticism did not pose a direct threat to the participants. What is more, not many of them scored highly or very highly on the anxiety state scale, the mean result being 36.02, with only nine out of 144 scoring above 50 (on a scale from 20 to 80). To solve this issue, in future studies either a manipulation of the anxiety state level or a comparison of results between healthy individuals and results of people suffering from anxiety disorders might be introduced.

The link between irony perception and social competences was not confirmed. A possible explanation is that, despite the fact that some of the scores were not very high, the participants – university students – had already had numerous opportunities to see irony being used in many diverse situations and thus they evaluated it through their rich personal experiences. It is still possible that among people with very poor social training, irony comprehension is limited and its interpretation less diverse.

During the study, two issues worth mentioning arose. Firstly, the amount of male and female participants was not balanced and some differences in irony perception between men and women have already been proven. For example, women evaluate irony more negatively than men (Milanowicz, 2013) and most of the participants were females. Another issue is the identification of the participants with one of the characters in the scenes. The participants were all students, so it is possible that they found it easier to identify with students in the stories, who in each experimental condition (N, R, P) were put in a different communication role (the recipient, the speaker, or both). Both the gender imbalance and the possible identification inconsistency might have influenced the results.

Conclusion

The presented study shows that situational factors and individual differences can influence verbal irony perception. However, this field requires further investigations. As a summary, it is important to stress that ambiguity and figurativeness of irony make its perception and interpretation in any case at least partly subjective (Milanowicz, 2013). We understand it through our unique, personal experiences. Irony is a dynamic phenomenon, cocreated by the speaker and the addressee. Not only does it provide information about reality but, more importantly, it is also a way to present attitudes and express and engage emotions of all interlocutors (Milanowicz, 2013). Diverse functions of ironic speech are not mutually exclusive and so, finding one clear pattern explaining how it all works might prove to be impossible (Gibbs, 2000).

Author Note

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Footnotes

¹Due to the limited scope of this paper, the data obtained from the last two questions will not be presented.

Appendix

Examples of the stories used in the study:

1. Socially inferior speaker, random event, ironic criticism / literal criticism.
Pani Elżbieta prowadzi jedno z ćwiczeń, na które Beata miała przygotować pracę zaliczeniową. Pani Elżbieta nie zdążyła sprawdzić wszystkich prac w ustalonym terminie z powodu niespodziewanych kłopotów rodzinnych, o których tydzień wcześniej głośno rozmawiała przez telefon w obecności Beaty. Kiedy poinformowała studentkę, że jej praca nie została jeszcze oceniona, ta odpowiedziała: *Ale szybko pani to idzie! / Ale wolno pani to idzie!*
[Ms. Elisabeth teaches a practical course that Betty wrote an assignment for. Ms. Elisabeth was not able to grade all the assignments in appointed time because of unexpected family trouble, of which she loudly spoke on the phone the previous week in Betty's presence. When the teacher informed the student that her assignment has not been graded yet, the student replied: *You're so fast! / You're so slow!*].

2. Socially superior speaker, addressee guilty, ironic criticism / literal criticism. Karolina miała przygotować pracę zaliczeniową na ćwiczenia prowadzone przez pana Tomasza. Karolina nie zdążyła napisać pracy w ustalonym terminie, ponieważ zbyt dużo czasu poświęciła różnym spotkaniom towarzyskim i imprezom, o których tydzień wcześniej głośno rozmawiała przez telefon w obecności pana Tomasza. Kiedy poprosiła prowadzącego o jeszcze kilka dni na dokończenie zadania, ten odpowiedział: *Ale szybko pani to idzie! / Ale wolno pani to idzie!*

[Caroline was supposed to prepare an assignment for a practical course taught by Mr. Thomas. Caroline was not able to write the assignment in the appointed time because she spent too much time at social gatherings and parties, of which she loudly spoke on the phone the previous week in Mr. Thomas' presence. When Caroline asked Mr. Thomas for a few more days to complete the assignment, the teacher replied: *You're so fast! / You're so slow!*].

3. Speakers socially equal, addressee guilty, ironic criticism / literal criticism. Edyta i Olek są znajomymi. Pewnego dnia Edyta zbyt długo szykowała się do wyjścia z domu i w rezultacie dotarła na spotkanie z Olkiem pół godziny po ustalonym czasie. Olek, który wcześniej otrzymał telefon z wyjaśnieniami, powitał Edytę słowami: *Cześć, wcale się nie spóźniłaś! / Cześć, ale się spóźniłaś!*

[Edith and Alex are colleagues. One day Edith took too long to prepare before leaving and as a result arrived for a meeting with Alex half an hour late. Alex, who earlier got a phone call explaining the situation, welcomed Edith by saying: *Hi, you're not late at all! / Hi, you're so late!*].