Developing appreciation of irony in Canadian and Czech discourse

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Abstract

This empirical study investigates the development of children’s understanding of an ironic speaker’s mind and their appreciation of the pragmatic function of counterfactual irony in discourse. Canadian 7- and 9-year-old children and adults (N = 72) and Czech respondents matched on age (N = 72) reasoned about the mental states of an ironic speaker and evaluated the function of both critical and praise irony in short stories ending with statements expressing the meaning opposite to the speaker’s intended meaning. Pronounced age differences were detected in children’s representation of the mind of the speaker across the conditions and cultures. Evaluating the pragmatic function of irony, however, failed to show stable patterns in how nice, mean, and funny children and adults judged the given statements to be. While the maturation in the ability to represent a speaker’s mind is argued to represent universal features of human ontogeny, an evaluation of the pragmatic impact of irony is argued to be largely influenced by the social and cultural milieu of language socialization. Ironic criticism shows stable traits in the development of its understanding and in the assessment of its function across the two cultures, whereas ironic praise displays substantial differences ascribed to the degree of conventionality of its usage in the context of the individuals’ socialization.

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Keywords: Critical irony; Praise irony; Social reasoning; Pragmatic function; Development; Culture

1. Introduction

The use of nonliteral language is pervasive in everyday communication across varying cultural and linguistic contexts. Verbal irony, more specifically, is a common communicative strategy and a universal conversational device (Booth, 1974), of which the surface-level meaning contrasts with what would normally be expected in a given context, under given circumstances. Most scholarly definitions of irony assume that ironic utterances deliver the opposite meaning of what the speaker believes to be true and imply that the speaker intends the expression to be recognized as untrue by the target audience (Colebrook, 2004; Hutcheon, 1994; Muecke, 1969). This paper investigates how language users decipher a correct interpretation of counterfactual ironic statements and how nice, mean, and funny they judge ironic statements to be. The primary goal of this paper is to examine children’s developing skills at representing the aspects of an ironic speaker’s mind, necessary for inferring his or her intended meaning behind the use of irony, along with their identification of the basic pragmatic functions of concrete ironic statements. The secondary goal is to uncover potential parallels in the

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cultural appreciation of irony of different valence, leading to a reexamination of the mechanisms used by listeners to infer the speaker’s intended meaning.

According to Grice (1975), speakers can produce utterances with degrees of implied meaning either directly, by appealing to the maxims of cooperative principles (those of quantity, quality, relation, and manner) or by deliberately violating one or more of these maxims. Irony is an example of a deliberate violation of the maxims of cooperative principles of communication, creating a surface-level ambiguity between the states of affairs in the world and the actual ironic statement. Although not all identifiable ironies are deliberately fabricated and constructed as such (Gibbs, 2012), the point of intentionally produced ironic messages is to be recognized as expressions of a disbelief in the opinion expressed. Scholars have argued that irony provides indirect information by providing addresses with cues to the assumed attitude of the speaker (e.g., Kreuz and Glucksberg, 1989; Kumon-Nakamura et al., 1995). For Wilson and Sperber (2012), the expression of an attitude to an attributed thought is one of three central features of discourse irony (along with norm-based expectations and ironic tone of voice). As the full appreciation of irony calls for a correct identification of the speaker’s attitude, a listener and an interpreter needs rather sophisticated skills to represent complex mental states. This poses a challenge for younger listeners. An appreciation of irony is constrained by factors such as age, valence and the form of an ironic utterance, as well as by cultural and social context of discourse. Each of these factors is discussed in turn in the following sections (Sections 1.1–1.3).

1.1. Developmental constraints

Children’s ability to reason about others’ mental states—such as emotions, intentions, desires, beliefs, attitudes and so forth—limits their understanding of an ironic speaker’s intended message (for a detailed review see Filippova, 2014). Although preschool children can correctly assess beliefs and intentions of people in unambiguous situations and correctly ascribe these to characters in hypothetical scenarios, they generally fail to reliably interpret irony even beyond the age of nine years (Demorest et al., 1983, 1984; Filippova and Astington, 2008, 2010). Authors of studies using diverse methodologies generally claim that children as young as 6 years of age grasp at least the incongruity between the spoken and intended speaker meaning and can correctly identify a speaker’s beliefs (Ackerman, 1983; Glenwright and Pexman, 2010; Hancock et al., 2000; Harris and Pexman, 2003; Sullivan et al., 1995; Winner and Leekam, 1991) and detect some of the pragmatic functions of irony in social interactions (e.g., Andrews et al., 1986; Filippova and Astington, 2010; Harris and Pexman, 2003; Winner and Leekam, 1991). Dew et al. (1996) found that while 5- and 6-year-olds could identify the muting function of sarcastic statements relative to literal statements, they were less adept at perceiving the humorous function of ironic remarks. Harris and Pexman (2003) and Pexman et al. (2005) also demonstrated that children’s understanding of the humor function of discourse irony continues to develop through middle childhood. Furthermore, Creusere (2000) reports that the form of irony affected children’s interpretation of its meanness. Recent reports combining the investigation of social-cognitive and social-communicative (i.e., pragmatic) aspects of understanding the early school years (7 years and onwards) as the most formative years in the developing appreciation of the meaning and function of non-literary communication (e.g., Filippova and Astington, 2008, 2010; Peterson et al., 2012; Pexman et al., 2005). As a result, this study investigates 7- and 9-year-olds’ understanding of counterfactual forms of irony as compared to that of adult language users.

Importantly, understanding others’ minds develops hand in hand with children’s language competence and other cognitive abilities, including executive functions, memory, and attention to expressive prosody. As acquiring all these skills follows a preset developmental sequence, older listeners will necessarily be at the advantage of a richer introspection and more accurate representation of the intended messages in ambiguous utterances.

A feasible existence of a sub-module for human mind-reading ability used in relevance-guided inferential comprehension of speech (Sperber and Wilson, 2002) fits the argument for an innate processing mechanism humans use to figure out the speaker’s intended meaning. Development of children’s abilities to represent others’ mind occurs as the innate processing device, triggered by its various elements coming on line (Scholl and Leslie, 1999), matures.

Yet, in contrast to an accurate representation of a speaker’s mind requiring certain biological and cognitive predispositions, even young children readily evaluate the impact of what others say (Filippova and Astington, 2010). This evaluation may or may not be contingent on mind-reading abilities developing gradually during ontogeny. It is plausible to speculate that other factors are at play when figuring out the function of irony in discourse. Social and cultural context (shaped by the history and traditions from within) and one’s membership in specific groups of interactants are potential candidates for constraining one’s appreciation of irony. Culture- and language-specific research has been called for by Attardo (2008), which seems to be vital for an elaboration of potential developmental landmarks. As well, while most of the developmental studies of irony investigated the ontogenetic milestones present on the road toward a correct interpretation of irony, little research thus far has examined the cultural parallels and differences in the developing appreciation of irony. The present study intends to fill in the existing gap by identifying potential cross-cultural parallels and cultural specifics in irony appreciation.
1.2. Valence, form and social goals of irony

Irony highlights inconsistencies between the listeners’ expectations and the actual state of the world. It conveys an attitude behind unfulfilled expectations, ruined ambitions, or disturbed plans. The prototypical form of irony is a counterfactual critical statement (often referred to as sarcasm) in which a positively stated utterance communicates speaker’s negative meaning, such as “That’s terrific!” to comment on something unfavorable (Schwoebel et al., 2000). Irony can also take a form of a counterfactual praise in which a negatively worded utterance conveys speaker’s positive message, such as the expression “Bummer!” used to comment on a visibly excellent outcome of someone’s action. Although irony has been argued to take many other forms in casual conversations (rhetorical questions, understatements, ironic thanking, hyperbole, etc.), little consensus has been reached among the scholars on the inclusiveness of its definition. The lack of a unified definition of its form makes any cross-cultural research on irony understanding and appreciation a challenging task. Therefore, the form of irony in this study is restricted to the counterfactual forms, operationalized as irony among most researchers and theoreticians (Clark and Gerrig, 1984; Kumon-Nakamura et al., 1995; Matthews et al., 2006).

Ironic communication denotes a speaker’s strategy for communicating subtle messages conveyed implicitly and achieves important social goals. The goal of the prototypical form of irony—sarcasm—is to express a kind of negative affect or mocking attitude (e.g., Gibbs, 2000; Roberts and Kreuz, 1994) by the means of a positively worded utterance. On this view, irony serves social-distancing or eliminative role in interpersonal communication, as the degree of negativity is enhanced relative to a literal form of the intended criticism (e.g., Kreuz and Roberts, 1995). On another view, irony represents an off-record politeness strategy (e.g., Brown and Levinson, 1987; Kumon-Nakamura et al., 1995) and diminishes the impact of criticism relative to a literal critical comment (Dews and Winner, 1995). The actual pragmatic function of individual sarcastic remarks may strongly depend on the exact context of the statement and, thus, one’s evaluation of its impact on the addressee or an over-hearer may be closely bound to a given social and linguistic context. Jocularity, operationalized as a negatively worded statement to convey a positive message, serves social-bonding or humor function. Thus, the valence of attitudes expressed through irony varies and may be generally associated with a degree of perceived meanness, niceness (i.e., politeness) or humor.

Gender has repeatedly been found as an important predictor of nonliteral language usage. Holtgraves and Yang (1992) claim that females tend to use polite language as a function of relationship with the addressee. Males, on the other hand, tend to use sarcasm twice as likely than do females (Gibbs, 2000) and are perceived as more sarcastic and prone to express more negative emotions than females (Link and Kreuz, 2004). The results of Colston and Lee’s (2004) study support the view that males are generally greater risk takers than females and more readily take a risk of their ironic intentions being misunderstood. Thus, gender may be one of the candidates for the social and cultural predispositions guiding our usage and interpretation of ironic language.

Yet, if there is a general cognitive or biological mechanism devoted to the interpretation of others’ minds, there is a good reason to assume that people across different social and cultural settings use it similarly to decipher the speaker’s intending meaning. Inferring complex aspects of the speaker’s mind (e.g., speaker’s attitude) is likely a universal feature of cognitive development; yet, making such inferences is likely mediated by factors such as conventionality, frequency, familiarity and prototypicality (Giora and Fein, 1999). Unlike the assessment of the most likely representation of a speaker’s intended meaning, conventionality, frequency, familiarity and prototypicality are inherently features of the social and linguistic environment reflecting richer idiosyncrasies. We, therefore, hypothesize that the cultural and social context of language socialization will guide individual’s appreciation of the pragmatic function of irony in discourse (that is, a judgment of what function the utterance may play in a given context).

1.3. Culture and social context

In the research area of social-cognitive development, a fundamental change in children’s reasoning about others’ minds has been documented to occur between 3 and 5 years of age in European and North American children (Wellman et al., 2001). This shift is due to children’s emerging ability to represent other people’s actions and behaviors and by being able to take perspectives of others. Elaborating on earlier cross-cultural studies showing social-reasoning skills in children of non-Western cultures approximating those of children in the Western cultures (Avis and Harris, 1991; Vinden, 2002), Callaghan et al. (2005) identified a synchrony in the onset of mentalistic reasoning in children from Canada, India, Peru, Samoa, and Thailand. As the authors rightly point out, this identified synchrony does not rule out diversity in the actual outcome in social reasoning later in life. Ample ethnographical evidence attests that diverse socialization practices used across cultures often result in rather different outcomes with respect to people’s ascribing causes and effects to certain actions and behaviors (e.g., Lillard, 1997). Socialization of linguistic behavior should not be any different. Therefore, it is vital to establish what aspects of irony appreciation differ across different cultural contexts and which remain constant.
Schieffelin (1990) observed and argued that shaming and teasing practices valued in the Kaluli of New Guinea are central to teaching novices their place within their society. These practices are generally in very short supply in the approach to children's socialization in the West. As well, regional differences were documented in the function of sarcasm, for instance, across two places in the Unites States as well as in the intent listeners ascribe to a sarcastic speaker (Dress et al., 2008). Consequently, the richness of certain communication strategies will likely influence the interpretation of the function of these by people from different communities not just on a cross-cultural scale but also within cultures.

Irony has been characterized as a pervasive linguistic strategy used frequently in communication across cultures (e.g., Booth, 1974; Muecke, 1969). Dews and Winner (1999) estimate an average of four instances of verbal irony occurring in contemporary popular television shows every half hour. As well, Kreuz et al. (1996) report that readers of contemporary American literature encounter approximately one instance of irony on every four pages. Considering the occurrence of irony in daily informal face-to-face communication (Gibbs, 2000), the chances of a north-American English speaker to overhear irony everyday is very high.

The use of irony and its high occurrence has been widely studied and documented in various linguistic communities (see the volume edited by Ruiz Gurillo and Alvarado Ortega, 2013). Less documented, yet equally widespread is the use of irony in the Czech cultural context; it is a vital part of informal daily discourse but present also in more formal settings, such as in political discussions broadcast on TV. There has not been a thorough research on the occurrence of verbal irony in Czech; yet, a recently run survey across a range of native Czech speakers identified a large pool of Czech authors (e.g., Jaroslav Hašek, Bohumil Hrabal, or Karel Havlíček Borovský) and contemporary political and cultural figures as providing rich sources of ironic language (Filippova and Ryparova, in preparation). Moreover, a recent small-scale study uncovered that Czech speakers, including young school-aged children, outperformed their Canadian peers on their assessment of an ironic speaker’s mind in critical forms of irony, while Canadians outperformed Czechs in ironic statements used to praise (Filippova, 2010). A greater challenge in understanding irony used to praise, relative to that used to criticize, has also been found in Poles (Kasia Dyzman, personal communication, October 20, 2010). Consequently, there has been a need for a more thorough examination of the cross-cultural similarities and differences in irony understanding and appreciation. One’s place within a community, social group or culture espousing certain values and endorsing certain behaviors, including speech, will influence the function one ascribes to given sets of linguistic practices. Therefore, it would be expected that speakers of diverse social and cultural groups evaluate linguistic behaviors somewhat differently. The present study sets out to provide evidence for this hypothesis, scarce in research reports published thus far.

2. The present study

The present study examines the developing understanding of counterfactual forms of both ironic criticism and ironic praise in two cultural settings: in Canada, a representative of an English-speaking north-American discursive strategy, and in the Czech Republic, a representative of a central-European, less westernized culture with a rich record and a widespread usage of irony. A single-task paradigm explores aspects of an ironic speaker’s mind, namely meaning, belief, intention, and motivation, and examines evaluation of three potential functions of the given statements in discourse, specifically their niceness, meaniness, and funniness (Filippova and Astington, 2010). Findings from studies highlighted in the introduction of this paper form the prime hypothesis in that the understanding aspects of a speaker’s mind will be more challenging for children than a simple evaluation of how nice, mean and funny a statement is. Hypothesizing further about a potential cultural specificity of the appreciation of certain forms of irony over others and about potential cultural or social constraints on the development of irony understanding, the study examined understanding of a number of ironic statements and their impact in school-aged children and adults from Canada and Czech Republic.

The goal of this study was to establish whether the findings from the study of Canadian population collected previously in a major Canadian city (reported in Filippova and Astington, 2008, 2010) hold for a speech community in Czech Republic. The Czech speakers were selected as a counterpart culture to the English-speaking Canadians because of rather recent changes in social and cultural attitudes of the generation now raising young children. Generally credited with implicitly suspicious and negative attitudes inherited from the previous generations living behind the iron curtain, Czechs were chosen as a cross-reference to Canadians, typically associated with positivism and a good sense of humor. Detecting developmental parallels across the two cultures may help in identifying contenders for biologically driven universal aspects of interpreting the meaning of others’ speech. By the same token, identifying cultural specificities may lead to finding environmental factors or language socialization strategies mediating understanding and appreciation of discourse irony. As for a standard inclusive experimental practice, both women and men participated in the study. Yet, the modest number of participants in this study precludes us from formulating strong hypotheses as to the gender-related differences. Sex will thus be used mostly as a control variable, rather than a variable of a genuine interest in the collected data.
3. Method

3.1. Participants

The Canadian sample consists of 48 monolingual English-speaking children in two age groups and 24 adult native English speakers: 24 7-year-olds ($M = 7.7$, range $= 7.2$–$8.1$, 13 boys), 24 9-year-olds ($M = 9.7$, range $= 9.1$–$10.1$, 11 boys) and 24 adults ($M = 32$, range $= 23$–$63$, 11 men). The Czech sample consists of forty-eight monolingual Czech-speakers matched on age to the Canadian sample and 24 native Czech-speaking adults: 24 7-year-olds ($M = 7.6$, range $= 7.1$–$7.11$, 8 boys), 24 9-year-olds ($M = 9.5$, range $= 9.0$–$9.11$, 6 boys), and 24 adults ($M = 31$, range $= 24$–$62$, 14 men). The children in the Canadian sample were recruited through their school in a middle to upper-middle income area of a major Canadian city and those in the Czech sample were recruited through a regular public school in a major Czech city. The data from 24 adults were collected through a network of the researcher’s colleagues and assistants in both cultures. While the data from the Canadian sample were previously reported in Filippova and Astington (2008, 2010), those from the Czech sample are original to this report.

3.2. Materials and procedure

The original task (Filippova and Astington, 2008, 2010) consisted of eight different stories in which one character commented on the action of another character by using an ironic statement. All eight stories from the original task were administered to all the participants (i.e., four stories ending with a counterfactual statement and four stories ending with a non-counterfactual statement). However, as the focus of this paper is on the developing appreciation of counterfactual statements, only half of the stories are used in the present analyses: 2 stories presented in the form of a counterfactual criticism and 2 stories in the form of counterfactual praise. The stories were accompanied by simple illustrations of the story characters (see Appendix A for a story example). The order in which the stories were presented was fully counterbalanced across participants and the types of statements were counterbalanced across the story scenarios.

Questions following each story checked the participants’ comprehension of the story facts and assessed the participants’ ability to (i) reason about the social-cognitive aspects of the speakers mind—that is to represent the character’s meaning, his or her belief about the other protagonist’s action, his or her communicative intention and motivation behind using such a statement—and (ii) assess the pragmatic function of irony by rating how nice, how mean and how funny was what the speaker said (see Appendix B for a sample questionnaire).

Each child was administered the task individually in a quiet room in the familiar environment of the children’s school. The procedure was identical for each participating child. The individual stories and questionnaires of the irony task were alternated with other tasks not reported here (for the full description of all the measures used see Filippova and Astington, 2008). An experimenter read the short irony vignettes to the children with a consistent use of prosody for the characters’ utterances across the participants. In line with previous reports (Filippova and Astington, 2008, 2010), the adult volunteers were asked to fill out protocols in the form of questionnaires according to the short stories that preceded them. The adult protocols were identical to those administered to children; the words stressed by the researcher administering the task orally were capitalized in the ironic statements in the adult questionnaires. The adult participants were asked to read the ironic statements out loud according to the marked stress and to answer the ensuing questions according to their own interpretation of the statements. The protocols were identical for both children and adults; they only differed in the manner of administration. This was done to ensure that children fully concentrated on the details of the story and answered completely all the subsequent questions. Unlike children, our adult participants did not need a face-to-face interaction and could fill out the whole questionnaire at their convenience. This procedure was justified in the previous reports as the adults provide an informative comparison data rather than strict control data.

3.3. Scoring and coding

Individual scores for the social-reasoning questions were obtained from each participant’s answers to the Meaning, Belief, Intention, and Motivation questions. Answers to the dichotomous yes/no questions testing the speaker’s meaning, belief, and intention were scored as either correct (1) or incorrect (0), depending on the given scenario. Answers to the open-ended question testing the speaker’s motivation were coded on a 5-point scale (from 0 to 4), reflecting levels of interpersonal understanding based on increasing cognitive complexity of the answers, gathered from the patterns of adults’ responses. The motivation question was geared toward a potential explicit reference to the speaker’s attitude toward the action of the other protagonist and was coded in the following manner: Inappropriate justifications or two consecutive “I don’t know” answers to the open-ended motivation question received a score of zero (0); a score of one (1) was given for responses reflecting simple surface level justifications (i.e., story facts—“because she spilled the water on
her picture”, or a reference to states or feelings of the speaker—“because she was mad”), or those reflecting learned conventional answers or clichés (e.g., “that is not a nice thing to do”); a score of two (2) was given for a reference to information that had an implication for another person’s behavior, rather than mental state (e.g., “so that she doesn’t do it ever again”); a score of three (3) was given to responses identifying the speaker’s intention to affect another person’s mental state (e.g., “to teach her a lesson”); and a score of four (4) was given for a reference made to the speaker’s attitude toward the situation or to the pragmatic function of irony that went beyond the identification of the speaker’s second-order intention (i.e., mention of what the speaker communicated to the listener about his attitude toward the situation) (e.g., “she did not want to be too harsh at her, since she was just a little girl and she didn’t mean to spill it all over the picture” or “she wanted to make the accident a little less serious”) (see Filippova and Astington, 2008 for a detailed coding scheme). A single score was given for response to each question, whereby participants were credited for their best answer by being given the highest possible score. Individual scores for the pragmatic-function questions in each story were obtained from each participant’s rating the niceness, meanness and funniness on a scale from 0 (not at all nice/mean/funny) to 3 (very very nice/mean/funny).

4. Results

4.1. Social reasoning

The participants’ scores on the Meaning, Belief, Intention and Motivation questions were used to create a single social-reasoning score. Based on Filippova and Astington’s scaling procedure (2008), a scaled social-reasoning score was created for every story of the irony task for each participant based on the four social-cognitive variables in the following manner: correct answers to the Meaning, Belief, and Intention questions and an attitude identified in the response to the Motivation question (responses coded 4 on the Motivation question) received a social-cognitive score of 4; correct answers to the Meaning, Belief, and Intention questions without the attitude identified in the Motivation question (answers coded 0 through 3 on the Motivation question) received a social-cognitive score of 3; correct answers to the Meaning and Belief questions and an incorrect answer to the Intention question received a score of 2; a correct answer to the Meaning question and an incorrect answer to the Belief question received a score of 1; and all the other patterns of responses received a score of 0 (for further details on the scaling procedure see Filippova and Astington, 2008). These scaled scores were then collapsed across the two stories in each of the conditions (i.e., criticism and praise), resulting in a social-cognitive score ranging from 0 to 8 for each condition. Table 1 shows descriptive statistics (means and standard deviations) for scaled social-cognitive scores in the two conditions for all age groups.

To examine the effect of culture, condition, sex and age-related changes in social reasoning about a speaker’s mind, a repeated-measures ANOVA was computed on the scaled irony score with condition (criticism, praise) as the within-subjects factor, and culture (Canadian, Czech), sex (male, female) and age (7, 9 years, adults) as the between-subjects factors. Results showed a significant main effect of culture, in favor of the Canadian sample, F(1, 132) = 10.504, p < .01, η² = .074, a significant main effect of condition, in favor of criticism, F(1, 132) = 7.631, p < .01, η² = .055, and a significant main effect of age, F(2, 132) = 25.854, p < .001, η² = .281 (see Fig. 1). Post hoc analyses (Bonferroni corrected) revealed that while there was no significant difference between 7- and 9-year-olds’ scores, adults scored significantly higher than children (both pS < .001) regardless of condition. The only significant interaction was between condition and culture, F(1, 132) = 14.792, p < .001, η² = .101, revealing that although the respondents from the two cultures did not differ in their scores in the criticism condition, the Canadians scored higher than Czechs in the praise condition. All other interactions were nonsignificant.

Thus, adults in both cultures are better than children at reasoning about the social-cognitive aspects of an ironist’s mind, regardless of the type of statement (i.e., criticism or praise). Moreover, although the participants’ understanding of

<table>
<thead>
<tr>
<th>Age group</th>
<th>Critical irony</th>
<th>Praise irony</th>
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<tbody>
<tr>
<td>Canadians</td>
<td></td>
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</tr>
<tr>
<td>7-year-olds</td>
<td>4.58 (1.56)</td>
<td>5.06 (1.93)</td>
</tr>
<tr>
<td>9-year-olds</td>
<td>4.79 (2.17)</td>
<td>4.83 (2.99)</td>
</tr>
<tr>
<td>Adults</td>
<td>6.75 (1.23)</td>
<td>6.96 (2.03)</td>
</tr>
<tr>
<td>Czechs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-year-olds</td>
<td>4.88 (1.70)</td>
<td>2.63 (1.84)</td>
</tr>
<tr>
<td>9-year-olds</td>
<td>5.25 (1.65)</td>
<td>4.42 (2.04)</td>
</tr>
<tr>
<td>Adults</td>
<td>6.42 (1.02)</td>
<td>5.13 (1.80)</td>
</tr>
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</table>
ironic criticism does not show cultural difference, Canadians interpret an ironic speaker’s mind more readily than Czechs in the praise condition.

4.2. Pragmatic function of irony

Participants’ scores from their evaluation of the pragmatic function of the given utterances reflected their ratings of the niceness, meanness and funniness of the statements. As the maximum score per function was 3 for each story, the final range (0–6) came out of combining the scores across two stories within the condition. Table 2 shows descriptive statistics (means and standard deviations) for the rated niceness, meanness, and funniness of irony in the two cultures in two conditions.

Table 2
Means (SDs) of pragmatic-function scores for each age group and condition.

<table>
<thead>
<tr>
<th></th>
<th>Nice</th>
<th>Mean</th>
<th>Funny</th>
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<tbody>
<tr>
<td>Critical irony</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Canadians</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-year-olds</td>
<td>1.95 (2.14)</td>
<td>3.33 (2.30)</td>
<td>.92 (1.14)</td>
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<tr>
<td>9-year-olds</td>
<td>2.04 (2.13)</td>
<td>3.79 (1.82)</td>
<td>1.08 (1.41)</td>
</tr>
<tr>
<td>Adults</td>
<td>.79 (1.02)</td>
<td>3.71 (1.65)</td>
<td>1.33 (1.34)</td>
</tr>
<tr>
<td>Czechs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-year-olds</td>
<td>1.21 (1.47)</td>
<td>2.88 (2.09)</td>
<td>.96 (1.63)</td>
</tr>
<tr>
<td>9-year-olds</td>
<td>1.29 (1.16)</td>
<td>3.67 (1.61)</td>
<td>.63 (1.06)</td>
</tr>
<tr>
<td>Adults</td>
<td>2.00 (1.41)</td>
<td>3.17 (1.66)</td>
<td>1.67 (1.44)</td>
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<tr>
<td>Praise irony</td>
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<tr>
<td>Canadians</td>
<td></td>
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<tr>
<td>7-year-olds</td>
<td>2.08 (1.95)</td>
<td>3.21 (1.84)</td>
<td>1.50 (1.41)</td>
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<tr>
<td>9-year-olds</td>
<td>2.13 (1.94)</td>
<td>3.33 (2.16)</td>
<td>1.38 (1.74)</td>
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<tr>
<td>Adults</td>
<td>3.75 (1.62)</td>
<td>1.04 (1.23)</td>
<td>2.54 (1.29)</td>
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<td>Adults</td>
<td>3.21 (2.15)</td>
<td>2.50 (2.54)</td>
<td>2.00 (2.04)</td>
</tr>
</tbody>
</table>
conditions for all three age groups. To examine the effect of culture, condition and age-related changes in pragmatic evaluations of irony, a repeated-measures ANOVA was computed with condition (criticism, praise) as the within-subjects factor and culture (Canadians, Czechs), sex (male, female) and age (7, 9 years, adults) as the between-subjects factors for the three contenders of the function of irony: niceness, meanness and funniness, described in turn in the following sections (Sections 4.2.1–4.2.3).

4.2.1. Niceness

Significant main effects were found for condition and culture but not age. Results showed a significant main effect of culture, $F(1, 132) = 4.487, p < .05, \eta^2 = .033$, with Czechs evaluating irony as nicer than Canadians, and a significant main effect of condition $F(1, 132) = 62.040, p < .001, \eta^2 = .320$, with praise being judged nicer than criticism. A significant two-way interaction was found between condition and culture, $F(1, 132) = 7.441, p < .01, \eta^2 = .053$, with no difference in scores for the critical irony but with Czechs scoring higher than Canadians on their evaluation of niceness in the praise condition ($ps < .01$). Moreover, there also was a significant three-way interaction between condition, culture, and age, $F(2, 132) = 16.854, p < .001, \eta^2 = .203$. Analyses of simple effects (Bonferroni corrected) showed that while Canadian children did not differ from Czech children in their assessment of ironic criticism, Czech adults rated ironic criticism as nicer than Canadian adults ($ps < .01$). However, simple effects showed that while adults did not differ in their evaluation of the niceness of the ironic praise, Czech 7-year-olds rated it as nicer than their Canadian counterparts ($ps < .001$) and so did the Czech 9-year-olds ($ps < .01$) (see Fig. 2a and b).

Thus, while Czech adults rated ironic criticism as nicer than their Canadian counterparts, no other significant differences were found in the criticism condition. In the ironic praise condition, however, Czech children in both age groups rated ironic praise as nicer, even if the performance of adults did not differ significantly between the cultures. Importantly, there was no pattern in difference across ages in neither culture as to the evaluation of the niceness of neither critical nor praise irony.

4.2.2. Meanness

Again, significant main effects were found for condition and culture but not age. Analyses showed a significant main effect of culture, $F(1, 132) = 7.232, p < .01, \eta^2 = .052$, with Canadians evaluating irony as meaner than Czechs, and a significant main effect of condition $F(1, 132) = 36.002, p < .001, \eta^2 = .214$, with criticism being rated as meaner than praise. A significant two-way interaction was found between culture and age, $F(2, 132) = 3.742, p < .05, \eta^2 = .054$, with no difference in scores of adults but with Canadian child groups judging irony as meaner than their Czech counterparts (both $ps < .05$). In addition, there also was a significant three-way interaction between condition, culture, and age, $F(2, 132) = 6.754, p < .01, \eta^2 = .093$. Analyses of simple effects showed that while there were no differences in the judgment of meanness in neither age group in the ironic criticism condition, there were consistent differences between the cultures in...
their judgment of the ironic praise. Namely, Canadian children in both groups rated ironic praise as meaner than their Czech counterparts (both $p < .01$), Czech adults found ironic praise as meaner than Canadian adults ($p < .05$) (see Fig. 3a and b).

Thus, while there is no significant difference in our participants’ judgment of the meanness of the ironic criticism, there are consistent cultural differences in the ratings of the meanness of ironic praise at all studied ages: Canadian children rated ironic praise as meaner than their Czech counterparts but the reverse was the case for our adult participants. To sum, the child data are consistent across the niceness and meanness ratings in both conditions. The subtle nuances in the judgment of adults may be due to the cultural discourse preferences and will be discussed in Section 5. Overall, and parallel to the evaluation of niceness, there is no overall pattern of significant age differences within the cultures in the evaluation of meanness of counterfactual irony in our groups of respondents.

Fig. 3. Culture- and age-related differences in the appreciation of meanness of (a) ironic criticism and (b) ironic praise.

Fig. 4. Culture- and age-related differences in the appreciation of funniness of (a) ironic criticism and (b) ironic praise.
4.2.3. Funniness

Significant main effects were found for condition and age, with results showing a significant main effect of condition, \(F(1, 132) = 25.149, p < .001, \eta^2 = .160\), ironic praise rated funnier than ironic criticism, and a significant main effect of age, \(F(2, 132) = 3.8893, p < .05, \eta^2 = .056\). While there was no significant two-way interaction, two three-way interactions were found. The first three-way interaction was between condition, culture, and age, \(F(2, 132) = 4.903, p < .01, \eta^2 = .069\), with simple effect revealing the only contrast between adults in the praise condition, showing Canadian adults rating ironic praise as funnier than Czech adults (\(ps < .05\)) (see Fig. 4a and b). The second significant three-way interaction was between culture, age, and sex \(F(2,132) = 3.264, p < .05, \eta^2 = .047\). Further analyses of simple effects showed the only contrast in Canadian adults’ rating of funniness, where Canadian males rated irony as funnier than Canadian females (\(ps < .01\)). No other contrast or interactions were significant.

Thus, while our respondents are consistent in their evaluation of the funniness of critical irony, only Canadian adults rate ironic praise as funnier than their Czech counterparts. Furthermore, Canadian adult males rate irony funnier than Canadian females.

5. Discussion

The findings document three important contrasts in the listeners’ appreciation of irony. The first contrast is between reasoning about social-cognitive aspects of an ironic speaker’s mind and the pragmatic function of ironic statements in discourse. The second contrast highlights the difference in the appreciation of irony used to praise or criticize. The third difference stems from the contrast found between the two cultural groups, leading to further conjectures about the universal and culture-specific features present in one’s interpretation of ambiguous speech. The three contrasts are discussed in turn.

The first distinction—between our participants’ reasoning about the social-cognitive aspects of a speaker’s mind and the pragmatic function of irony in discourse—is highlighted by the present cross-cultural data. Overall, there is a significant age improvement in the participants’ representation of the mind of an ironist beyond the school age. Replicating the findings of Filippova and Astington (2008) on the Czech population, the present cross-cultural data confirm that adults are superior to school-aged children in their representation of the mind of the speaker using counterfactual ironic statements. The age improvement is detectable in both conditions across both cultures (Fig. 1). The pronounced development in social-reasoning abilities, however, does not transfer to the data on the assessment of the pragmatic function of irony in discourse. Skills in the former likely represent a universal developmental cognitive achievement. Skills in the latter, on the other hand, may be reflecting complex patterns of individuals’ socialization not only on a larger scale of culture but also on smaller scales of local networks represented by friends and peers. It is often these groups that affect the individuals’ values and guide their appreciation of certain behaviors, including communication strategies. Thus, a certain degree of social-cognitive maturation is needed to interpret correctly the intended meaning and attitude of an ironic speaker; nevertheless, an appreciation of a statement’s niceness, meanness and funniness is guided by different processes and evaluation principles.

As Filippova and Astington (2010) argued, young children perform comparably to adults when asked to assess the function of ironic statements from their own point of view, in contrast to the more difficult task in constructing a representation of a speaker’s mind. Arguably, the rating scale used to assess the statements’ niceness, meanness and funniness may not be sensitive enough to reflect nuances in the developing appreciation of the function of ironic statements in discourse. The nature of the qualitative answers to the open-ended motivation question also failed to provide an unambiguous picture of how the children justify the use of such sentences in discourse. As one can gather from the coding of the motivation question, the correct answers scored 1–4 reflect an increasing complexity of answers with regards to the reference to mental states but do not preclude an appropriateness of a relevant answer accrued a score of 1, for instance. Thus, the nature of the questions posed and rating scales used in the present study prevents us from arguing for an existence of a developmental trend in the data on the pragmatic function and impact of irony in discourse.

The second sharp contrast uncovered by the study is that between our participants’ appreciation of the critical and praise forms of irony in discourse. Ironic praise was judged funnier, nicer and less mean than ironic criticism. It is possible that appreciation of irony (especially that of the less prototypical ironic praise) may depend on the individuals’ appreciation of politeness or on some kind of social aptness. While existing studies on politeness across cultures may give raise to some hypotheses, no reliable research on Czech speech practices can be used as a basis for the explanation of the patterns gathered in this small-scale study. Similarly, a rather intricate concept of social aptness may not warrant much speculation to explain the data gathered.

The interactions of valence found with other factors on the evaluation of the pragmatic function of irony attest to the potential strong influence of culture and perhaps of the immediate environment to which the individuals are being
socialized. Generally, there is a better consistency in the performance of our participants in the two cultures on the ironic criticism compared to the pronounced cultural differences in the ironic praise condition. As alluded to in the introduction, scholars do not always agree on what exactly counts as irony. The present data show that ironic criticism (i.e., sarcasm) is, indeed, more prototypical form of irony in that the detection of its meaning and the function of it shows little cultural variation across the two linguistic contexts. Ironic praise, on the other hand, may exemplify a type of a counterfactual speech the appreciation of which varies widely both across and within cultures. Further research is needed to warrant any firm conclusions.

The last contrast in the cultural appreciation of irony in discourse is closely tied to the second contrast in the performance on the two valences of counterfactual statements used in the study. Our participants in both cultures scored similarly on all the questions pertaining to the ironic criticism (with the exception of some ratings in the adults). Thus, this prototypical form of irony is processed and appreciated correspondingly, suggesting that sarcasm is widely used form of indirect speech in both cultures. The story of ironic praise is different though. While Canadians do not differentiate between counterfactual criticism and praise with respect to the ease of representing the mind of the speaker in both conditions (see Fig. 1a and b), counterfactual praise provides much more challenging context for the Czechs’ reasoning about the ironic speaker’s mind (see Fig. 1b). In spite of this seeming asymmetry, Czech children appreciate the niceness of counterfactual praise (see Fig. 2b) suggesting they understand the utterance functions as praise in spite of the speaker’s choice of a negative utterance (yet implied a positive meaning). Due to the design of the reported study, we cannot even eliminate potential appropriateness and translation issues with the counterfactual praise being interpreted by Czechs differently than by the English-speaking Canadians. A complementary study design, combining quantitative and qualitative data is timely for tackling the reasons for the counterfactual criticism being interpreted correctly more often than counterfactual praise. Finally, Canadian adults find ironic praise more entertaining as their Czech counterparts and men more so than women. This single significant sex-related difference found in the present data provides a modest support for the proposal, that male respondents find the impact of ironic praise more humorous than do female respondents (only in the present Canadian sample though).

Yet, there still is a seeming disparity in the fluctuation of the niceness andanness ratings of ironic praise across the age groups within the cultures. Although we may only speculate about the causes of such a discrepancy, I would argue that the appreciation of how nice or mean an utterance appears to children may be more tied to their membership to a certain group (e.g., friends and class mates of the 7- and 9-year-olds) rather than to the culture in general. Our judgment of what we consider nice or mean may change more easily, depending on our current disposition and mood, than on our representation of the speaker’s mind.

6. Conclusion

Understanding irony and appreciating it is not a matter of simple passing or failing questions devised for experimental laboratory settings. Much of our appreciation of it varies across social contexts and is surely affected by our current moods and changing attitudes. Although a simple evaluation of some of the social functions irony serves in interpersonal communication is a matter of one’s own stance toward the conversational partner or any given situation, inferring the intended meaning of the speaker is much more complex. Representation of a speaker’s beliefs, intentions, motivations and attitudes is contingent on the listener’s ability to metarepresent (e.g., Filippova and Astington, 2010). Children may well be correct in representing the mind of a speaker in casual, unambiguous conversations; however, adults are superior even to the 9-year-olds’ social-representational skills. Maturation of a module (or innate processor) may well be required for sophisticated interpretation of complex aspects of an ironist’s mind, documented in our participants’ performance on the social-reasoning questions.

In the context of irony production, people vary in how much introspective access to higher-order cognitive processes they have (Gibbs, 2012). It is plausible, however, that what counts as irony understanding does not necessitate sophisticated access to the complex intentions and attitudes of the speaker. For instance, although Czechs may not have referred overtly to the ironic speaker’s attitudes in the praise condition (thus scoring lower than Canadians in the social-reasoning domain), Czech children have correctly identified the function of ironic praise by accentuating their rating of it on the niceness scale. Canadian children, on the contrary, reasoned well about the ironic speaker’s mind in both conditions but did not recognize its positive function when evaluating its niceness. This may suggest that children in both cultures are using different strategies toward deciphering the meaning of irony in interpersonal communication. As the exact mechanism(s) people use when processing irony has not been fully elucidated, we should be cautious about trying to fit our restricted data into theoretical accounts or models explaining how people decipher ambiguous messages in dyadic communication. Even if such models are plausible, theoreticians should also explain the outcomes of cultural variation. Until then, combined investigation across experimental and naturalistic setting needs to inform researchers across the disciplines studying human communication in general, and various forms of indirect communication in particular.
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Appendix A. Sample irony story

Karen’s picture
Karen is drawing a picture of her family for a class project. Karen’s sister Michelle wants to help Karen. Karen says okay. She lets Michelle paint a picture of their dog.

Criticism:
By accident, Michelle spills water on the painting. The painting is ruined. When Karen sees the ruined picture, she says to Michelle:
“You sure ARE a GREAT helper!”

Praise:
Michelle draws their dog perfectly. Karen likes it very much. She says to Michelle:
“You sure ARE an AWFUL painter!”

Appendix B. Questionnaire (critical irony)

Control questions:

1. Did Michelle help Karen with her picture? Y N
2. What did Karen say to Michelle?
Social-cognitive questions:

**Meaning:**

3. Does Karen mean that?  
   Y  N

   What does she mean?

Belief:

4. Does Karen think Michelle is a great helper?  
   Y  N

Intention:

5. Karen said to Michelle: "You sure ARE a GREAT helper!"

   Does Karen want Michelle to believe that she thinks that?  
   Y  N

Motivation/Attitude:

6. Why did she say that?  
   ________________________________

Pragmatic-function questions:

7. Karen said to Michelle: "You sure ARE a GREAT helper!"

   Pick one of these four glasses on the picture to show

   (a) How nice was what Karen said?  
       0  1  2  3

   (b) How mean was what Karen said?  
       0  1  2  3

   (c) How funny was what Karen said?  
       0  1  2  3

References


Filippova, Eva, Ryparova, Dominika. Czechs’ perception and appreciation of irony (manuscript in preparation).


