

A Novel Annotation Schema for Conversational Humor: Capturing the cultural nuances in *Kanyasulkam*

Vaishnavi Pamulapati Gayatri Purigilla Radhika Mamidi

Language Technologies Research Center

International Institute of Information Technology

Hyderabad, India

vaishnavi.p@research.iiit.ac.in

gayatri.purigilla@research.iiit.ac.in

radhika.mamidi@iiit.ac.in

Abstract

Humor research is a multifaceted field that has led to a better understanding of humor's psychological effects and the development of different theories of humor. This paper's main objective is to develop a hierarchical schema for a fine-grained annotation of Conversational Humor. A prominent 19th century play from Telugu, *Kanyasulkam*, is annotated to substantiate the work across cultures at multiple levels. Based on the Benign Violation Theory, the benignity or non-benignity of the interlocutor's intentions is included within the framework. Under the categories mentioned above, in addition to different types of humor, the techniques utilized by these types are identified. Furthermore, the inter-annotator agreement is calculated to assess the accuracy and validity of the dataset. An in-depth analysis of the disagreement is performed to understand the subjectivity of humor better.

Keywords: conversational humor, Benign Violation Theory, multicultural, hierarchical schema

1 Introduction

Humor and its dependence on society and culture have been the focus of research since times immemorial (Raskin, 1979). From finding theories to define humor (Raskin, 1985; Meyer, 2000; Attardo and Raskin, 1991) to an analysis of the perception of humor in jokes (Raskin, 1979), humor studies have been proved to be an essential aspect of linguistic as well as sociological, psychological and philosophical research. Many papers discuss types of humor (Dynel, 2009; Alexander, 1997; Behrens, 1977), but this paper stands apart. It focuses on creating an annotation schema for conversational humor with a stage play as the medium of analysis while claiming that this schema can be used across languages. Conversational humor is the spontaneous or pre-constructed interactional humor. The interlocutors intend to amuse the listener directly or shift to a humorous frame where there is humor beyond what the literal verbalizations convey (Dynel, 2009). Stage play is chosen as the medium of analysis since 'conversational humor' is an umbrella term that covers various semantic and pragmatic types of humor that occur in interpersonal conversation, both real-life and fictional (Dynel, 2009).

There are key differences between plays and other forms of discourse, like transcribed recordings of actual conversations or novels, justifying our use of stage play in the paper. The differences include but are not limited to pauses, pause fillers, and discourse markers as essential features of characterization in a play, unlike their use in actual conversations. In a play, there is more character-character interaction than in novels, which have more narration from one point of view (Wareing and Thornborrow, 1998). But the annotation schema presented here does not restrict its application on plays alone but can also cover novels, TV shows, movies, etc; essentially any genre that involves a premeditated conversation. This paper also focuses on how humor's form and function are influenced multiculturally by annotating one of the most famous plays of the Telugu culture, *Kanyasulkam*. Studies show that culture plays a vital role in conversational humor in some distinct ways like the need for shared knowledge and standard references, and others more indirect, like how the importance given to language awareness by any culture

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dictates the preference for wit and linguistic play (Mullan and Beal, 2018). *Kanyasulkam* is a play set in the 19th century Vijayanagaram which uses humor to talk about the social evils prevalent in the society. However, while the author talks about child marriages, widow re-marriage, and the Nautch question, we also see him discuss customs and traditions, superstitions, use of English and the fascination towards it, etc. Thus, making it culturally relevant and further justifying the use of *Kanyasulkam* in validating the role of culture on humor. Persona identification is an important application of the schema proposed. For instance, if character A has a tendency to sarcastically tease character B on most occasions, we gain an insight into A's sense of humor (SOH) as well the social function performed by A. While there have been several studies that suggest that an SOH indicates positive personality traits such as self-actualising, self-acceptance, and others (Maslow, 1954; Allport, 1961), the social function performed by A also provides an understanding of A's overall role in the story, therefore the character's persona.

2 Related Work

Interest in the study of humor has faced steady growth since 1970 (McGhee P.E., 1989). This interest in humor studies has led to a great deal of research on humor types and functions. In his paper on the issues in conversational joking, Neal R. Norrick (2003) talks about the structure of humorous discourse, the forms of conversational humor and its interpersonal functions, i.e., aggression vs. rapport. Two of Marta Dynel's studies, one based on a popular English sitcom, *Friends* (2011) and another on the sitcom, *House* (2013), are deemed relevant to this study. While the former analyses cultural references, the latter attempts to extract universal communicative phenomena that cause humor. Dirk Delabastita (2005) presents in her work, an overview of the humorous scenes with bilingual and translation-based situations from Shakespeare's plays. Levisen (2014) uses Natural Semantic Metalanguage to compare the Danish concept of 'sort humor' (a highly culturally specific way of Danish communication) and the English, 'black humor.' To recognize humor and irony in tweets, Antonio Reyes et al. (2012) analyze humor and irony to recognize these concepts in tweets. Agnese Augello et al. (2008) have worked on building a chatbot that recognizes and generates humorous expressions. There have been continuous efforts in the field of computer science for the comprehension (Binsted et al. 2006), detection (Taylor, 2009), production (Hempelmann et al., 2006), and recognition (Mihalcea et al., 2006) of conversational humor.

3 Data and Annotation

The full text of the Telugu play, *Kanyasulkam*, is annotated by two people, A1 and A2. For the pre-processing of the data, the whole text was split first by each character's dialogue, and each utterance by the character was further split into single sentences/segments. In the presence of poems, lists, etc. the utterance remains as is, and this final output is used for annotation giving a total of 6645 segments to be annotated. After developing the gold standard corpus (can be found here), 2710 utterances were classified as humorous, 1782 were given the tag *dialogue*, 1881 *conversational*, and 892 *benign*. The annotation was done with appropriate checkpoints after every 2000 segments to identify any new techniques or revise the schema.

4 Annotation Schema

Types: Teasing(T), Retort(R), Banter(Ba), Schadenfreude(S)

Techniques: Dramatic Irony(DIrn), Sarcasm(Src), Satire(Str), Fallacious Reasoning(FR), Exaggeration(Ex), Use of foreign language(FL), Allusion(A), Profanity(P), Other stylistic figures(O) (refer to Table 5).

Note: A segment can be annotated with more than one technique.

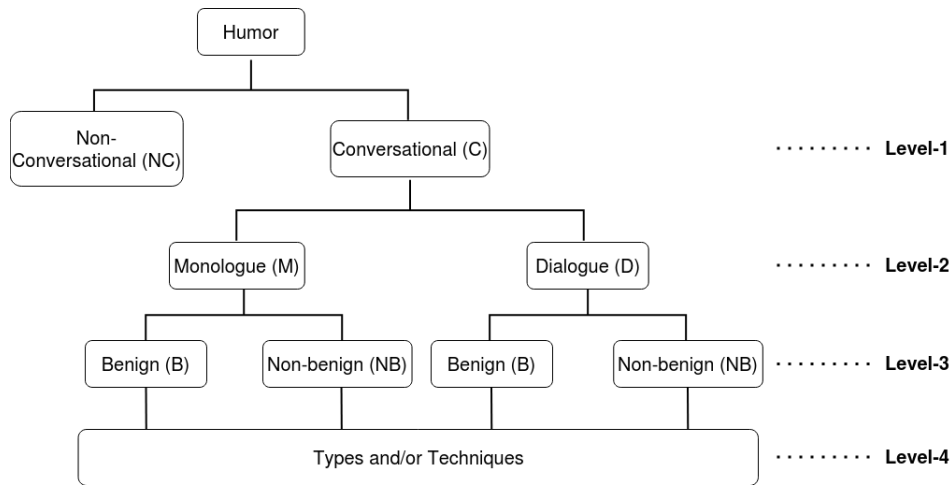


Figure 1: Hierarchical schema for Conversational humor

4.1 Level-1: Non-Conversational (NC)/ Conversational Humor (C)

This study uses Dynel’s (2009) conceptualization of conversational humor. As the dataset used here is a play, it is of primal importance to note that the speaker’s intent may not be to cause humor. However, a third-party present, or the metarecipients of the conversation, the audience/readers, may find it humorous. It is a common phenomenon to make the audience laugh at the expense of a fictional character. This study makes a distinction between conversational and non-conversational humor. In the latter, the humor does not exist in the realm of verballity but rather in the domain of the situation (slapstick humor, a character’s trait such as miserliness, stupidity, etc.) For example, when a cowardly character is badmouthing his rival and the latter appears just then.

4.2 Level-2: Monologue (M)/ Dialogue (D)

The notion of ”dialogue” is taken in the Socratic dialogue sense: a conversation between two or more people. In contrast, there are several definitions and types of monologues present: Dramatic monologue (Finch, 2010), soliloquy (Shea, 1963), and inner monologue (Neuse, 1934). This study defines a monologue as ”utterances by a single person/character in real-life/fictional with the assumption by the speaker that there are no listeners present to hear their thoughts”. The distinction between humor found in a dialogue and a monologue is made because it is recognized that if a person speaks to themselves with no listeners present, it gives rise to certain types and techniques of humor compared to those occurring in a dialogue. Take *retorts*, for instance. A retort is a sharp or witty remark in response to another’s utterance (Sacks, 1992 [1972]). Hence, for this type of conversational humor, the first turn in an adjacency pair must transpire (Sacks, 1992 [1972], 419).

4.3 Level-3: Benign (B)/ Non-Benign (NB)

The Benign Violation Theory examines the intersection at which the listener perceives a violation in a joke as benign (McGraw, 2010). A joke is not a passive entity but is expressed by a person and perceived by another. Hence, the relationship between the joke-teller, the joke, and the joke-listener must be explored (Kant and Norman, 2019). In conversational humor, there is no notion of a ”joke” (”canned joke” in Dynel (2009)). Humor is caused by the interlocutor’s spontaneous speech that may or may not be humorous to the listeners present. For instance, in derision, reprimands, or put-downs, the speaker or listener may not find it humorous; instead, a third-party present (or an audience) may find the utterance humorous. In this study, it is important to note that the relationship between the author of the play and the audience is not examined, but the latter is given the role of a passive listener.

karata: *bAvA yIsammaMXaM ceswe nI koVMpaki aggeVtteswAnu.*

agni: *vIlyIamma SiKAwaraga, prawIgaAdixakoVdukU wiMdipowullAga nAyiMtajeri nannanevAIyle*

Translation:

Karata: Brother-in-law, if you agree to this proposal, I will set your house on fire.

Agni: (An expletive directed at Karata's mother), every son of a donkey, comes to my house to eat like a glutton and ends up criticizing me.

Context:

Here, the interlocutors present in the scene do not find Agni's utterance humorous as he only intends to ridicule Karata and Venkamma. However, the metarecipients, the audience, are bound to find it amusing (Dynel, 2009). This study augments the BVT by modifying the factors by which a joke can be labeled as benign: (a) two contradictory norms of the relevant culture (b) a weak commitment to the violated norm, or (c) the social distance between the interlocutors and the content of what is uttered (d) the intention of the humor causer understood by the listener whether benign or not (Weiner 1993, 2009). By these four conditions, the above example is labeled non-benign as it goes against the salient norm of respecting a guest, and there exists no norm that states to insult a guest in the Telugu culture blatantly. Furthermore, Agni's intention is to solely deride his guest's behavior.

4.4 Level-4: Types of conversational humor**4.4.1 Teasing (T)**

In this study, teasing is considered to transpire when the speaker intends to be playful, to only nip at the present listener non-aggressively. The main objective is to develop/strengthen the bond between the speaker and the listener(s). Other than this benevolent intention, the speaker also uses an element of "pretense" to tease (Clark, 1996; Dynel, 2009).

maXu: *anyAyaM mAtalu AdakaMdi, Ayana yaMwa caxuvukunnAdu, Ayanaki yaMwapraKyAwi vuMxi!*

nedorepo goVppa vuxyogaM kAnEyyuMxi.

Translation:

Madhu: Don't be unfair. He is a very learned man. He has a lot of fame as well. Very soon, he'll land himself a good job.

Context:

Madhu teases her client Ramappanthulu by praising another client of hers, Girisam. Rama detests and is jealous of Girisam. Knowing this, Madhu seeks to elicit a reaction by exaggerating (a common technique used in teasing) Girisam's strength playfully.

4.4.2 Retort (R)

A retort takes place at the second turn in an adjacency pair where the purpose is to out-challenge or outwit the other interlocutor(s) (Dynel, 2009) of the conversation by making a quick comeback (utilizing the other's behavior, personality, past, etc.) In this definition of retort, the speakers do not aim to collaborate and engage in conversation jointly, rather undermine (non-benign) or challenge (in some cases, benign) the listener (Holmes and Marra, 2002).

lubXA: *mAmagAru hAsyAnikaMtunnArugAni, ninnoVxulwArA?*

[...]

rAma: *alAgaddi peVttaMdi!*

maXu: [...]

gaddi gAdixalu wiMtAyi;

manuRyulu winaru.

Translation:

Lubdha: Uncle is just pulling your leg. Do you think he will forsake you?

[...]

Rama: Teach her a lesson like that (Idiom with the literal meaning of 'feed her grass')

Madhu: [...]

Grass is eaten by donkeys, not people.

Context:

Rama is reading a letter written by Girisam where the latter refers to him as a donkey. In response to Rama's suggestion of teaching Madhu a lesson, she mocks him indirectly by referring to the letter when she says, "Grass is eaten by donkeys, not by people".

4.4.3 Banter (Ba)

If there is a continuous exchange of retorts and teasing in a multi-turn conversation, it is called banter (Dyner, 2008; Norrick, 1993: 29). This rapid exchange of repartees is observed in interactions such as a conversation between parents, coworkers at the office (example 2 in Holmes and Marra, 2002), etc. It is important to note that Banter cannot be a hierarchical category encompassing Retort and Teasing as they can also occur independently.

maXu: *wAkattuvawuva wappiMcuku pAripoweno?*

kukkA, nakkA, kAxugaxA goVlusuluvesi kattadAniki?

karata: *nI valallo paddaprANi mari wappiMcukupovadaM yalAga?*

vAtiki vunna patuwvaM yevukku goVlusulakU vuMdaxu.

maXu: *valalo muwyapu cippalupadiwe lABaMgAni, nawwagullalupadiwe mowacetu.*

karata: *yaMwasepU dabbu, dabbenA?*

snehaM, valapU, anevi vuMtAyA?

maXu: *snehaM mIlAtivAricota*

Translation:

Madhu: What if you run away after pawning it?

You aren't a dog or a fox to tie you with chains.

Karata: Can any living being be freed from your trap?

Its hold is stronger than that of any chain.

Madhu: Only if pearls are trapped, it is of any use. Getting a hold on rocks/shells will only increase my burden.

Karata: Why are you always concerned about money? What about friendship, justice, etc.?

Madhu: Friendship with people like you (with sarcasm)

Context:

Madhu is hesitant to depart from her necklace, which Karata is asking for. Karata teases her by flattery and hopes it will help in achieving his goal. However, Madhu retorts by indirectly comparing him to a weed/stone. Subsequently, in response to his reprimand that she always talks about money, she retorts using sarcasm once more.

4.4.4 Schadenfreude (S)

Schadenfreude is a German word that refers to the pleasure derived from another's misfortune (Dijk et al., 2009). It is the "malicious joy" evoked by the downfall of others, mostly high achievers (Feather and Sherman, 2002; Smith et al., 1996). This emotion is majorly associated with negative connotations, (Smith et al., 2009, Leach et al., 2003; cf. Kuipers, 2014) All instances of Schadenfreude in this study agree with the non-benign viewpoint. The intent of the utterance is to be truly abusive and denigrating to the person it is directed towards (butt). An important aspect of annotation to note here is that, when a segment is tagged as Schadenfreude, we need not laugh at the plight of the character whose utterance it is.

PUta: *AveVXavavuMte nAkeM kAvAli, vuMdakuMte nAkeM kAvAli.*

vAdu nIkiccina yiravayi rUpAyalU yicceVy.

MaXu: *yavadi kiccAvo vANNe adagavamma.*

PUta: *veVXavakanabadiwe sigapAyixIsi cIpurugattawo moVwwuxunu, yeVkkadaxAcAvevizi?*

Translation:

Putu: I couldn't care less about that idiot's whereabouts. Just give me the 20 rupees that he gave you.

Madhu: Ask the person you gave it to.

Putu: I will cut his hair and thrash him with a broom if I find him, where did you hide him?

Context:

Putta comes to Madhu's house, searching for Girisam, who has run away with her money. On getting no help from Madhu in finding his whereabouts, Putta is immensely angered, and humor is found in Girisam's plight.

4.5 Techniques:

4.5.1 Dramatic Irony (DIrn)

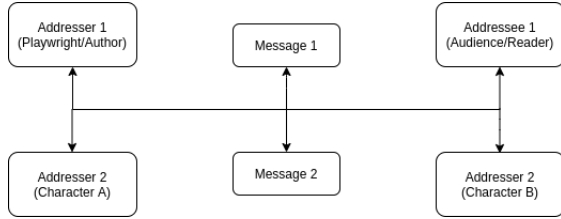


Figure 2: Levels of discourse

In a stage play setting, there exist two or more levels of discourse, the author-audience/reader, and the character-character level (Short and Mick, 1996). When the character is portraying pretense with one character, another character may or may not be in on it, but the readers necessarily are. Hence, other than the knowledge that exists between the characters, the audience is also privy to knowledge only they possess (Kreuz and Roberts, 1993).

girI: *AlrEt - gAni - nAkikkada cAlA vyavahAramulalo naRtaMvaswuMxe - munasabugAri pillalki Salavullo pATAIceVpiweV PiptI rupij yiswAvaznnAru; ayinA nI viRayavEz yaMwa lAs vaccina nenu ker ceVyyanu.*

Translation:

Giri: It's alright. But I'll incur a lot of losses here. The village head has promised to give 50 rupees for tutoring his kids over the vacation. However, I do not care about any loss when it comes to you.

Context:

Girisam lies that he has been offered a valuable job opportunity but that he will reject it as he genuinely cares for his pupil Venka. The audience knows that this is untrue as, before this conversation, Girisam was plotting to take advantage of Venka's economic resources.

As mentioned above, a requisite component of teasing is that of pretense. Nevertheless, teasing is not mandatorily marked with dramatic irony as there is a difference in intent. In dramatic irony, the intent is to dupe the listener by pretending to have values, attributes, etc. that the speaker does not possess. Whereas, in teasing, the motivation is to reduce the social distance or to poke fun at the listener benignly.

4.5.2 Satire (Str)

Satire has been defined as the ridicule of a subject (a person, situation, or an institution) to point out its faults (Beckson and Ganz, 1989). It does not need to be present at the scene of action. Studies on Telugu literature have concluded satire to consist of 4 elements. Vyangyam, Chatuvulu, Prahasanams, and Adhikshepam (Rao, 2004). The main features of each are sarcasm, ridiculing, intention of social reform, and intention of teaching morals and ethics through severe criticism. The presence of these elements in satire is only culturally significant, and such a clear-cut difference may not be found in English.

SiRyudu: *ArneVllakomAtu poVswakaMpattukuMte koVwwaSlokAlu pAwaSlokAlu oVkkalA gkanapadawAyi.*

mAguruvugAriki xoVMdakAya kUra yiRTaM lexu, guruvugAri peVIYlAM peVratlo xoVMdapAxuMxani rojU AkUreV voVMduwuMxi.

bawikunnavAlYla yiRTaveVz yilA yeduswUMte caccinavAdi yiRTAyIRTAlwo yeMpani? yIcaxuvikkadiwo cAlimci girISaMgAri xaggira nAlugiMgilIRu mukkalu nercukuMtAnu.

Translation:

Student: If I open my books once in 6 months, then the poems I have already learned, and the new ones all look the same.

My teacher does not like ivy gourd curry. But his wife makes the same curry everyday owing to the ivy gourd plant in their house.

If the likes of a person who is very much alive are not cared about, how do the likes of someone dead matter?

I should stop these lessons here and learn a few English words from Mr. Girisam.

Context:

Karata's student is asked to learn a poem by heart where the poet talks about his likes and dislikes of flowers and nature. The student is fed up by this mode of learning and feels it is pointless to learn about a dead person's likes and dislikes when his own guru's likes are not cared about by the latter's wife. This example is a satire on the education being provided to the student by Karata. The element of satire being used here is Chatuvu (ridicule).

4.5.3 Sarcasm (Src)

The difference between irony and sarcasm is fuzzy and is often misunderstood, given that they are inevitably bound to each other. However, the relationship between them remains unclear to native speakers but is highlighted when a comparison is drawn between cultures or linguistic communities (Partington, 2006). Attardo, in his study, cites that sarcasm is an overly aggressive type of irony with more explicit markers or cues and a clear target (Attardo, 2000). Studies also cite the difference between irony and sarcasm as irony does not require the speaker's intention and can be directed towards situations. However, sarcasm must be deliberate and is a strictly verbal phenomenon (Haiman 1990,1998).

klArk: *iMtiperU, sAkInU yemitaMdi?*

BImA: *emitayyA?*

agni: *Ayanaperu girISaM, maraMwakaMta nAkuweVliyaxu.*

kaleV: *cAbAR;*

bAgAvuMxi!

avaXAnlugAri koVmArweVni yeVvado wIsukupoyinAdu.

kanaka vAdi vUrUperU yeVriginavAIYlu weVliyaceVyyavalasinaxani, xaMdorAkoVttiMci ge-jatlo veyiMcaMdi.

Translation:

Clerk: What is his surname and address?

Bhima: What is it, man?

Agni: His name is Girisam. I do not know anything else.

Kale: Great. Sounds good. Let's get it published in the newspaper that someone kidnapped Mr. Agni's daughter. And hence, anyone who knows his name and village should immediately inform us.

Context:

Agni goes to register a complaint against Girisam who runs away with the former's daughter. When Agni states that he knows only the first name and nothing else, the officer sarcastically praises him and suggests that it would be great to publish this news in the Gazette and ask the public's help to get to know Girisam's details.

4.5.4 Fallacious Reasoning (FR)

A fallacy is defined as an argument that has faulty reasoning (Gensler and Harry, 2010) either by intentional pretense by the speaker or by genuine ignorance. In a conversational setting, a fallacy need not be restricted to arguments presented by the speaker to reach a conclusion. However, the characteristics of a conversation can be taken advantage of. For instance, the topic is diverted by speaking about an unrelated topic, identifying a false cause and effect (Shewan and Edward, 1994), etc.

girISaM: *veVrigud!*

peVIYlanexi maMci paxArWavEzwe "aXikasya aXikaM PalaM" annAdu ganaka cinnapillani oVka musalAdiki peVIYlicesi, vAducaswe marodiki, maroducaswe marodiki, yilAga peVIYlimIxa peVIYli, peVIYlimIxa peVIYliayi, vIdixaggiro veVyyi, vAdixaggiro veVyyi, marodixaggira maroveVyyi, roVtteVmIxa neVyyi, newimIxa roVtteV lAga yekowravqxXigA kanyASulkaM lAgi, wuxaki nAlAMti buXxivazMwuNnicUsi peVIYlAdiwe ceVppAv majA?

Translation:

Girisam: Very good. If marriage is a good thing, and since the more you do, the more you achieve, a young girl should be married to an old man and once he dies, another man and if he dies, then another one and so on while collecting a thousand from the first guy, then the next, then another, like butter on

bread and bread on butter, collect all the *Kanyasulkam* (bride price) and finally if she gets married to a wise guy like me, isn't that enjoyable?

Context:

Girisam pretends to agree that selling young girls for marriage is good for society when widow re-marriage is allowed. He argues that for every man that dies naturally with old age over time if the child is married and re-married to other older men, the father of the child gets money until the girl can marry a sensible person like Girisam. It is evident that this is an example of "non sequitur" fallacy, where the premises are true, but the conclusion is false.

4.5.5 Utilizing a Foreign Language (FL)

Several studies have attempted to understand the motivations for using a foreign language to produce humor (Siegel, 1995; Kim, 2006). Grosjean (1982) states that situations, messages, attitudes, and emotions influence foreign language use. In *Kanyasulkam*, English is used sporadically only by one character, Girisam, to achieve his objective: to portray and distinguish himself among the characters as well-educated.

agni: *oVkkaxammidI yivvanu.*

[...]

ixAMwA topI vyavahAraMIA kanapaduwuMxi.

karata: [...]

girISaM: *xisIj bArbaras, cUcAraMdi, jeVMtilmen anagA peVxxamaniRini yalA aMtunnAro!*

Translation:

Agni: I will not spare even one penny

[...]

Karata: [...]

Girisam: This is barbarous. Did you see how he is talking to a gentleman, meaning, learned person!

Context:

Upon being accused of cheating by Agni, Girisam is angered. Here, knowing fully well that the listeners do not understand English, Girisam still chooses to talk in English and then condescendingly explains what he means. He does this to establish superiority over others as people who knew English in those times were held in high regard.

4.5.6 Allusion (A)

(Norrick, 1989): Direct or indirect reference to an object or circumstance from a different context is defined as an allusion.

karata: *Ayanexo kurYrYavAdiwo yiMgilIRu mAtaMte puccakAyalaxoVMgaMte bujAlwaduvuzkunnattu nImIxa peVttukuMtAveM?*

Karata: If he is talking to his student in English, why are you getting involved like the watermelon thief rubbing his shoulders (idiom) meaning, why are you letting yourself be caught red-handed by getting angry and proving that you do not understand a word of it?

4.5.7 Profanity (P)

(Beers Fägersten, 2012): Profanity is defined as language that is considered as strongly impolite, rude, or socially offensive.

girISaM: *rAskeVI vulakalexu palakalexu sarekaxA moVhaM pakkaki wippi kaduppagiletattu navvuwunnAdu.*

Girisam: Not only did that rascal fail to support me during my lecture, he turned to his side and laughed almost until his stomach burst.

4.5.8 Hyperbole/ Exaggeration (Ex)

(Norrick, 2004): It is the representation of an entity as more dramatic, better, or worse than it really is. Hyperbole is a figure of speech using exaggeration.

girISaM: *nene xAni hajbeVMdnEvuMte, nilabaddapAtuna nI waMdrini rivAlvarwo RUt ceSivuMxunu.*

Girisam: If I were her husband, I would have shot your father with a revolver from where I stood.

Although exaggeration necessarily has a pretense factor, any segment where exaggeration is identified, "dramatic irony" is not marked.

4.5.9 Other identified techniques (O)

(Dyner, 2009): Such as simile, metaphor, etc. are also marked during annotation.

maXu: *catlaki cAva nalupu, maniRiki cAva weVlupU.* (simile)

Madhu: A person's death is marked by white, like how a tree's death is marked by black.

5 Disagreement Analysis

The validity of the tag set and their definitions are measured using Cohen's Kappa (κ) (Cohen, 1960). Although the annotators were asked to mark all levels of the hierarchical scheme, the inter-annotator agreement (IAA) for level 2 (Monologue/Dialogue) was not measured as the definition for these categories provided no ambiguity. The annotation for level 1, Conversational vs. Non-Conversational Humor, gave a Kappa value of 0.48 (moderate agreement). The disagreement emerged could be attested to the variation in the perception of humor (Table 1). For instance, A2 could have found the character's trait (Non-conversational) humorous, whereas A1 identified a verbal technique in the speaker's utterance, causing disagreement. Annotation of level 3, Benign vs. Non-Benign Humor gave a Kappa value of 0.42 (moderate agreement). The disagreement exhibited can be due to the difference in perception of the benignity of the utterance (Table 2). A1 could be aware of a salient norm that can be violated (Section 4.3), whereas A2 is not producing disagreement.

Annotation of level 3 of the schema, types of Conversational Humor, resulted in a Kappa value of 0.49 (moderate agreement). Most of the disagreement shown in Table 2 (refer to Appendix), (Null, <some_type>) or (<some_type>, Null), is due to the failure or success of labelling the type by one annotator or a difference in perception of humor itself. A significant overlap of types can only be observed at (*Retort, Teasing*), which occurs at 11 segments. The dissimilarity of perception of the speaker's intent causes this overlap. Annotator A1 perceived that the speaker intends to outwit or challenge the listener, whereas A2 perceived that the speaker only intends to pull the listener's leg.

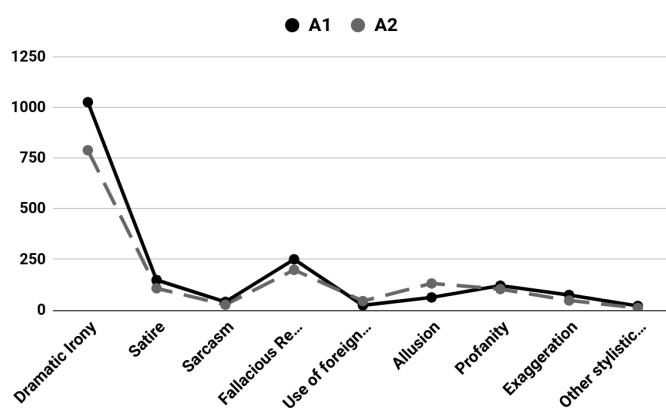


Figure 3: Distribution of Techniques by A1 and A2

For the final level of the schema, techniques of Conversational Humor (Figure 3), it is worthy to note that each segment can be marked with one or more techniques, but it is not mandatory. If level 1, 2, and 3 (Conversational/Non-conversational, Monologue/Dialogue, Benign/Non-Benign) are marked, then level 4 (Type, Technique) is to be tagged compulsorily. For this type of data, it was considered best to use Krippendorff's Alpha (α) (Krippendorff, 2004) for measuring the agreement between both annotators, resulting in an alpha value of 0.691. According to Krippendorff (2004), tentative conclusions are acceptable where

$\alpha \leq 0.667$. The low agreement value can be attested to the following observations. The role of the culture of the then period, and knowledge of the language itself to recognize allusion and wordplay respectively contribute majorly. Failure to understand the invalidity of the argument presented by the speaker leads to a Null tag in place of Fallacious Reasoning by the annotator. The common feature of dramatic irony with both exaggeration (Section 4.5.6) and Fallacious Reasoning is the presenting of a false statement to the listener, causing a grey area for annotation. Finally, the knowledge base possessed, culture exposed to, the emotion experienced at the time of annotation influences the individual's subjectivity of humor (Attardo, 2003; Jiang et al., 2019; Martin and Ford, 2018), contributing to the disagreement in the annotation of humor categories.

6 Conclusion and Future Work

The paper describes the work done on developing a fine-grained hierarchical annotation schema for Conversational Humor. The annotation was performed on a relevant dataset, a prominent Telugu play called *Kanyasulkam*. The inter-annotator disagreement highlighted the complexity of the task as well as the domain itself. As mentioned in the introduction, the schema can be utilised for persona identification, a use case especially beneficial for the literary field. For example, when analysing a Shakespearean character, analysing their sense of humor may help the researcher recognize their pertinent traits. This study also finds that inclusion of cultural nuances in the play has a significant effect on the perception of humor. Further, this annotation schema can be applied to other culturally significant works by utilizing the analysis provided in this work. However, when applying this schema to other works, it is to be noted that the types and techniques listed here are non-exhaustive and more can be added based on the language and cultural significance of the data being annotated. If a computer were to generate humor, the traditional meaning would mean that it could generate "jokes" (knock-knock jokes, etc.) but would fail to generate conversational humor. It is believed that this work will aid in automating this process.

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Appendix

A1	A2				
		Verbal	Situational	NULL	Total
	Verbal	1559	120	566	2425
	Situational	191	354	284	829
	Null	290	208	2893	3391
	Total	2040	682	3923	6645

Table 1: Cohen's Kappa for Level-1

A1	A2				
		Benign	Non-Benign	Null	Total
	Benign	336	9	127	472
	Non-benign	412	802	739	1953
	Null	220	261	3739	4220
	Total	968	1072	4605	6645

Table 2: Cohen's Kappa for Level-3

A1	A2						
		Teasing	Retort	Banter	Schadenfreude	Null	Total
	Teasing	62	1	0	0	38	101
	Retort	11	10	0	0	13	33
	Banter	1	0	131	0	6	138
	Schadenfreude	3	5	0	93	185	286
	Null	123	10	12	107	5835	6087
	Total	200	26	143	200	6076	6645

Table 3: Cohen's Kappa for Level-4

Level-1	Level-2	Level-3	Level-4	
Conversational	Monologue	Benign	Types	Techniques
Non-Conversational	Dialogue	Non-Benign	Teasing	Dramatic Irony
			Banter	Sarcasm
			Retort	Satire
			Schadenfreude	Fallacious Reasoning
				Exaggeration
				Use of Foreign Language
				Allusion
				Profanity
				Other Stylistic Figures

Table 4: Hierarchical Annotation Schema

Tag	Description	Example
C	Conversational	<i>Conversation has one speaker and two listeners.</i>
NC	Non-Conversational	<i>The Three Stooges getting poked in the eye or thrown pies at their faces.</i>
M	Monologue	<i>Only one speaker present and no listeners.</i>
D	Dialogue	<i>Conversation has one speaker and three listeners.</i>
B	Benign	<i>[A short person can't reach a shelf by a wide margin] A friend says, "If only you were an inch taller."</i>
NB	Non-Benign	<i>"The woman who is yelling in the street is a rascal that bites men"</i>
T	Teasing	<i>[A woman spills her drink] Her boyfriend says, "Let me grab a sippy cup for you"</i>
R	Retort	<i>"I'm sorry but I don't speak bullshit."</i>
Ba	Banter	<i>A series of teases and retorts between speakers.</i>
S	Schadenfreude	<i>"Somebody stole my lunch out of the fridge at work today. The worst part about it... I'm working from home."</i>
Dirn	Dramatic Irony	<i>[A character is known to be promiscuous] He says, "None can be loyal to a woman as I am"</i>
Sar	Sarcasm	<i>[Torrential rain on an expected sunny day] "Oh what warm weather!"</i>
Str	Satire	<i>"People say jokes are dead. But one can be found alive and kicking in the White House."</i>
FR	Fallacious Reasoning	<i>"I never generalize because everyone who does is a hypocrite."</i>
Ex	Exaggeration	<i>"How are you still hungry? You have a bottomless pit for a stomach."</i>
FL	Use of Foreign language	<i>[A mother asks her son to come home] He replies, "Je ne comprends pas!"</i>
A	Allusion	<i>"Don't act like Romeo in front of her!"</i>
P	Profanity	<i>"The idiotic excuse of a brother I have has no sense of decency!"</i>
O	Other identified techniques	<i>"She was as tall as a six-foot-two-inch tree."</i>

Table 5: Humor Tagset