

The Novelty of Text-Based Jokes

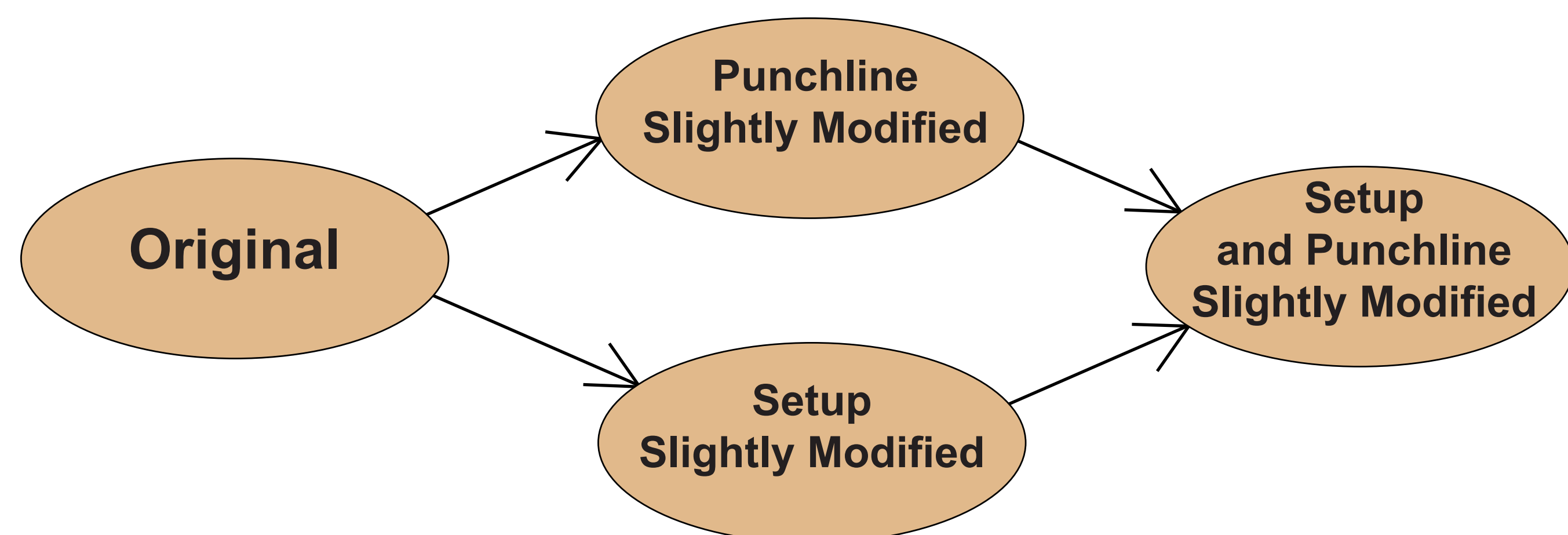
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Problem Statement

Novelty detection systems have the potential to increase security in information-based security systems and applications. Currently, such novelty detection systems are in the elementary stages of development. My research looks at detecting the novelty of humor, which is a step in the direction of creating a thorough novelty detection system.

Methodology



A Joke with its Variations

The Original

A little old Irishman gets pulled over by a policeman, who says, "Sir? Do you realize your wife fell out of the car about a mile back?" The old fella replied, "Oh, thank Christ. I thought I'd gone deaf!"

Analysis

The setup of this joke is a person driving and another character informing him or her that someone had fallen out of the car. The punchline of this joke is: "The old fella replied, 'Oh, thank Christ. I thought I'd gone deaf!'"

Setup and Punchline - Slightly Modified

A little old Irishman is walking to the bank when a policeman comes up to him and says, "Sir? Where is your wife?" The old fella replied, "Oh, I thought my hearing aid had fallen out!"

Analysis

One could argue that this joke is novel due to its changed scenario and punchline, but others may argue this joke is not novel due to the premise being similar (if not the same) as the original.

Setup and Punchline - Modified

A man drives his car into a Wal-Mart crashing through the front doors and skidding to a stop in the back of the store. The store manager walks up to the man's window and says, "Hey, do you realize your kids fell out of the car at the front of the store?" The man replied, "If I say 'yes' will you take me away from them forever?"

Analysis

Even though this joke involves a car being driven, an authority figure questioning the disappearance of people from said car, and a seemingly unconcerned response from the driver this joke would be considered by most to be novel.

Security Applications

This research is presented as a step in the detection of novelty, which is essential for text and information processing systems in security applications. The benefits of such a system are:

- **Automatically removing duplication and focusing on new data**
- **Threats can be detected more efficiently**

Humor provides a convenient starting point because jokes have more structure than most natural language files.

Conclusion

Given a previously known joke and a second joke, the second joke may or may not be considered novel if the punchline and/or setup are slightly modified. The second joke also may or may not be considered novel if the punchline or setup are exclusively modified. However, if both the setup and punchline are modified, then the joke will most likely be novel in comparison to the previously known joke.



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