

Stephen Skalicky*

Lexical priming in humorous satirical newspaper headlines

<https://doi.org/10.1515/humor-2017-0061>

Abstract: Satire is a type of discourse commonly employed to mock or criticize a satirical target, typically resulting in humor. Current understandings of satire place strong emphasis on the role that background and pragmatic knowledge play during satire recognition. However, there may also be specific linguistic cues that signal a satirical intent. Researchers using corpus linguistic methods, specifically Lexical Priming, have demonstrated that other types of creative language use, such as irony, puns, and verbal jokes, purposefully deviate from expected language patterns (e.g. collocations). The purpose of this study is to investigate whether humorous satirical headlines also subvert typical linguistic patterns using the theory of Lexical Priming. In order to do so, a corpus of newspaper headlines taken from the satirical American newspaper *The Onion* are analyzed and compared to a generalized corpus of American English. Results of this analysis suggest satirical headlines exploit linguistic expectations through the use of low-frequency collocations and semantic preferences, but also contain higher discourse and genre level deviations that cannot be captured in the surface level linguistic features of the headlines.

Keywords: satire, corpus linguistics, Lexical Priming, *The Onion*

1 Introduction

This is an investigation of humorous satirical headlines from the perspective of corpus linguistics and Lexical Priming (Hoey 2005). Satire is an ubiquitous and subtle method of social and political critique which can appear in a variety of different mediums: literary genres, political cartoons, satirical news outlets, books, product reviews, movies, and television shows (LaMarre et al. 2009; Nilsen and Nilsen 2008; Simpson 2003; Skalicky and Crossley 2015; Stewart 2013). A common result of satirical critique is a perception of humor from a

*Corresponding author: Stephen Skalicky, Department of Applied Linguistics, Georgia State University, 25 Park Place, 15th Floor, Atlanta, GA 30303, USA, E-mail: scskalicky@gmail.com

sympathetic audience, leading some to describe satire as a form of “humorous discourse” (Simpson 2003:1). However, current studies of satirical humor are primarily comprised of investigations into political satire from scholars in communication studies (Boukes et al. 2015; Johnson et al. 2010; LaMarre et al. 2009, 2014; Lee and Kwak 2014), which place strong emphasis on the role of contextual information, such as background knowledge and political affiliation, during the process of satire comprehension. Aside from Simpson’s (2003) book-length treatment of satire, almost no scholars from linguistics or humor studies have investigated the linguistic properties of verbal satire.

From the perspective of humor studies, all instances of verbal humor should involve “some degree of incongruity” (Ritchie 2009:329). The concept of incongruity (and incongruity resolution) is a prevalent explanation for how humor is recognized and comprehended and has been used as a vehicle to analyze the linguistic structure of jokes and also to explain how joke comprehension unfolds as a cognitive process (Dynel 2009; Forabosco 1992, 2008; Ritchie 2004, 2009; Suls 1983; Yus 2003, 2017). This study investigates incongruity present in the physical structure of humorous satirical headlines through the lens of Lexical Priming (Hoey 2005). Lexical Priming is a theory rooted in Sinclairian corpus linguistics which posits that deviations from expectations in typified linguistic structures such as collocations can serve to create humor, ambiguity, and other examples of creative language. Recent studies using a Lexical Priming framework have investigated incongruity in the verbal structure of irony (Louw 1993; Partington 2007, 2011b), word play (Partington 2009), and jokes (Goatly 2012, 2017). In these studies, structural incongruity is operationalized as extremely infrequent patterns of word combinations (i.e. collocations), grammatical categories (i.e. colligation), and word categories (i.e. semantic association) when compared to a large reference corpus of natural language use.

The purpose of this study is to investigate whether humorous satirical headlines employ linguistic patterns that deviate strongly from conventional use and whether these patterns represent an incongruity capable of prompting recognition of satirical humor. An initial set of three headlines taken from the American satirical newspaper *The Onion* is used to identify linguistic patterns that, based on initial intuition, may signal satirical intent. These patterns are then compared to a generalized corpus of English and other satirical headlines. By offering an investigation of humorous satirical headlines from the perspective of Lexical Priming, this study aims to advance linguistic understanding of satirical humor and further highlight Lexical Priming as an effective technique of locating structural incongruity in examples of verbal humor.

2 Satire

Although satire is most commonly defined as a literary genre favored by writers who have “a clear notion of what is right and wrong with the world” (Nilsen and Nilsen 2008:248), these definitions are not useful for exploring the linguistic nature of satire, as differences in satirical technique are usually related to different literary styles or authors. Pragmatic definitions of satire provide a more solid foundation for linguistic analysis, as they define satire as a subtle form of discourse intended to mock a satirical target, commonly resulting in humor (Simpson 2003:1–10). A theoretical model of satire as humorous discourse was offered by Simpson (2003), wherein he defined satire as a discursive practice among a satirical target, a satirical author, and a satirical audience with a purpose to critique or mock the satirical target, often resulting in humor between the satirical author and audience.

According to Simpson (2003), satire recognition and comprehension includes three stages: the prime, dialectic, and uptake. The prime stage is an echoic reference to a type of discourse, register, or genre event that may or may not be fully real. The dialectic phase is where a “text internal element” (Simpson 2003:89) clashes in some way with the prime and thus creates an incongruity between the expectations leveraged from a hearer’s knowledge of the prime (e.g. the genre of news). The uptake phase is where the resolution of the dialectic incongruity occurs (i.e. the hearer interprets the more subtle, satirical message). Successful uptake of the satirical message then results in a humorous interpretation of the message on the part of the satirical audience if the audience is sympathetic to the satirical message.

Simpson’s (2003) model and definition of satire thus includes both structural, verbal incongruity, as well as cognitive processing incongruity. The structural incongruity is signaled linguistically through the use of text-internal elements that clash with a reader’s genre knowledge (i.e. the prime), which can be considered a cognitive model of reference (Forabosco 1992, 2008; Suls 1983). The cognitive processing incongruity occurs during the uptake stage, where a reader must work to make sense of the apparent incongruity by recognizing the satirical intent. While Simpson (2003) outlined four linguistic strategies based on metonymy and metaphor that can work to signal a text-internal incongruity in satire (i.e. under emphasis, over emphasis, negation, and conceptual metaphor), it may be that other structural incongruities exist that signal a larger, cognitive incongruity crucial to satirical interpretation. As previous studies have demonstrated that text-internal incongruities in word play and jokes based on collocations exist (Partington 2009; Goatly 2012, 2017), it may be the case that the same phenomenon occurs in verbal satirical humor.

3 Corpus linguistics and lexical priming

Corpus linguistic research holds that meaning is not an inherent aspect of individual words and phrases. Instead, meaning is the product of interactions between lexis and grammar, which form larger patterns or *extended units of meaning* (Sinclair 1991, 2004; Stubbs 2001). Language patterns include collocation, colligation, and semantic preference. Collocations are frequently occurring combinations of words that do not necessarily have to be adjacent (Sinclair 1991). For example, Sinclair (1991) demonstrated the word *back* takes on different meanings depending on the collocates it occurs with. Specifically, when *back* is paired with *from* or *into*, the temporal sense of *return* is realized. When *back* is paired with *on* or some possessive pronouns, the anatomical sense of *back* is realized. Colligation is the pairing of a particular lexical item with other lexical items of a specific grammatical class (Sinclair 2004). Using the example of the noun phrase *naked eye*, Sinclair (2004) demonstrated that over 90% of the collocates that occur immediately before *naked eye* are prepositions, suggesting that the collocation *naked eye* also includes a preceding preposition and forms a larger, extended unit of meaning. Semantic preference is the similarity in meaning of all the words surrounding or co-occurring with a particular lexical item (Sinclair 2004). To keep up the example of *naked eye*, Sinclair (2004) found that regardless of collocation or colligation, all of the examples of the lexical item *preposition* + *naked eye* were preceded by a word related in some manner to vision (e.g. *sight*, *detect*). Thus, the scope for this extended unit of meaning is extended even further to include *vision word* + *preposition* + *naked eye*.

3.1 Lexical priming

Lexical Priming theory is a specific interpretation of Sinclairian corpus linguistics which posits that language associations and patterns (i.e. collocations, colligation, and semantic preference) are mentally catalogued by a language user and reinforced based on frequency of exposure (Hoey 2005). Frequently occurring patterns develop strong psychological *primings* for a language user's knowledge of specific lexical items, in that specific lexical items are primed to occur with certain other lexical items, in certain grammatical roles, and in certain semantic and pragmatic categories. Manipulation or deviation of these patterns causes an incongruity from a cognitive model of reference (i.e. a language user's mental primings), and can result in creative language use, such as humor and irony (Hanks 2013; Hoey 2005; Louw 1993).

Hoey (2005) demonstrates this concept via his *Drinking Problem Hypothesis*, based on a scene from the 1980 movie *Airplane!*, where the main character is described as having a drinking problem (i.e. drinks too much alcohol). The main character is then depicted spilling a non-alcoholic beverage down his face as he attempts to drink from a cup. The drinking *problem* is thus not related to alcoholism but rather to clumsiness. Hoey (2005) argues that because the collocation *drinking problem* primes an alcoholic connotation, hearers are surprised when a different (yet possible) meaning is forced upon them, resulting in a humorous reinterpretation of the phrase. In essence, Hoey's explanation for the humor in this scene aligns with incongruity resolution models (Ritchie 2004; Yus 2017). However, Lexical Priming points specifically to deviations from expected language patterns (i.e. primings) as an explanation for how incongruity is created by a speaker in order to achieve a humorous effect (Hoey 2005). This approach has been used in several analyses of verbal irony, word play, and jokes.

3.2 Studies using lexical priming

In a series of corpus studies, Partington (2007, 2011a, 2011b) demonstrated that verbal irony can be signalled linguistically through a “reversal of evaluation” (Partington 2007:1554) by violating a reader's expectations through the purposeful use of infrequent or contrasting collocations (Partington 2011b). For example, ironic opposition could be achieved through the novel pairings of words that, independently, do not represent opposites (e.g. *Chinese democracy*), or by substituting an evaluative opposite into a well-known phrase, such as *tidings of great horror* rather than *joy*.

In terms of humor, Partington (2009) investigated punning in a corpus of British newspaper headlines. Partington argued that the bisociation of meaning critical to pun interpretation exploits primings in structure and use of certain words in certain contexts. For example, the word combination *communist plot* in the pun “*Is the tomb of Karl Marx just another **communist plot**?*” is primed as a collocation with a meaning related to conspiracy or espionage. However, the larger, phrasal context of the pun invites reinterpretation of the collocation into a less frequent use of the two words: as a burial plot for a communist.

Goatly (2012, 2017) provided several analyses of verbal humor from the perspective of Lexical Priming in order to further test whether the “over-ridings of primings can account for humorous effects” (Goatly 2017:57). By comparing uses of collocations and other word patterns in a series of jokes

to a large reference corpus (the Cobuild Bank of English), Goatly reported that many examples of verbal humor relied on overriding the primings of collocations and grammatical roles that words appear in. In other words, some examples of verbal humor purposefully prey on the linguistic expectations (i.e. primings) of a hearer to create a structural incongruity that may ultimately lead to a humorous interpretation. In addition to violation of structural primings, Goatly also demonstrated that violations in genre or register expectations could serve to create a humorous effect and cited Simpson's (2003) explanation of satirical incongruity (i.e. between a prime and dialectic) as an example of how overridings of these primings can serve to prompt satirical humor.

4 Current study

The previous studies provide some evidence suggesting that the perspective of Lexical Priming is an effective method to locate specific structural incongruities (violations of primings) which may serve to explain the humor in puns and verbal jokes as well as incongruity in verbal irony. It has furthermore been suggested that satirical humor also relies on subversion of primings (Goatly 2017). The purpose of this study is to investigate whether humorous satirical headlines also contain deviations from expected linguistic patterns or primings. In order to do so, patterns located in humorous satirical headlines from the satirical American newspaper *The Onion* are analyzed and compared to a generalized corpus of American English. The research question for this study is:

1. Do satirical newspaper headlines contain deviations from linguistic patterns (primings) when compared to a generalized corpus of American English?

5 Method

5.1 Headline selection

The headlines in this study come from the satirical American newspaper *The Onion*, which regularly publishes satirical news stories and videos on its website poking fun at a variety of topics, including politics and American

culture. The incongruity between the ostensible purpose of providing news and the actual purpose of satirical criticism defines the headlines, stories, and videos produced by *The Onion* as satire (Simpson 2003). Because this study takes a Sinclarian approach, three initial linguistic patterns were chosen from three headlines taken from the *Onion*'s twitter feed as starting points, which were then extrapolated outwards to the entire corpus of headlines housed on *The Onion*'s main website. The three headlines are:

1. Employees Given List Of Doctors Shitty Enough To Accept Company's Health Insurance Plan
2. Russian Officials Promise Low Death Toll For Olympics
3. Obama Not Ruling Out U.S. Military Action In Congress

The specific patterns from each headline are *shitty enough to*, *death toll*, and *military action*. This decision was not made at random, but instead made on the basis of selecting headlines that ranged in their overall levels being more or less obviously satirical. Specifically, the collocation *shitty enough* is a very overt marker that a headline is not legitimate, as most major news sources tend to avoid swearing in their headlines. The headline containing the collocation *death toll* is less obviously satire at first, but a careful reader will notice that the Olympics should not be an event associated with death tolls. The third headline is the least obvious, as it can be read and assumed to be a legitimate headline about former President Barack Obama and the United States government making a decision related to military intervention. While the first two patterns contain relatively obvious violations of expected language and genre use, the main purpose of this analysis is to compare these patterns on a linguistic level to a larger reference corpus in order to determine if deviations in lexical primings are occurring. If the same patterns are found in a reference corpora, then the satirical interpretation would not be based on deviations from linguistic patterns but from some other manner of signaling incongruity.

The reference corpus used in this study is the Corpus of Contemporary American English (COCA; Davies 2008), a generalized corpus of American English use. COCA contains over 450 million words taken from a variety of spoken and written genres. COCA's website interface allows users to freely search for specific words and phrases in specific genres. All of the analyses below used COCA's list and collocations feature. This feature generates word lists (ranked by frequency) for words that appear in a range before or after a specific search term.

6 Results

6.1 Example 1: *shitty enough to*

This first pattern belongs to an *Onion* headline that is relatively easy to detect as satire: *Employees Given List Of Doctors Shitty Enough To Accept Company's Health Insurance Plan*. This is due to the pairing *shitty enough*, a collocation that, intuitively and based on previous experience, is uncommon in newspaper headlines. This intuition is confirmed when searching the reference corpus. A general search in COCA revealed that *shitty enough* is relatively infrequent, with a total of three hits returned (one of which was a quote of a different *Onion* headline). This provides some initial evidence that the collocation is specific to these satirical headlines.

In order to compare the use of *shitty enough to* against similar linguistic patterns, it is important to see what other words beyond *shitty* occur with *enough to*. By expanding the search in COCA for collocations appearing immediately before and after the pattern *enough to*, an extended unit of meaning comprised of the combination *adjective + enough to + verb* becomes apparent. A search in the newspaper subsection of COCA for all adjective collocates preceding the pattern *enough to + verb* revealed that this is a frequent, larger construction, which can be expanded further to include a noun phrase before the adjective (see examples in Table 1). The same search in all of COCA revealed a similar pattern, with minor variation in the frequency of adjectives.

Based on the frequency of occurrence (19,104 in COCA, 3567 in COCA: Newspaper, when searching for all adjectives that precede *enough to + verb*), it is fair to conclude that the pattern surrounding *enough to* constitutes an extended unit of meaning that allows for variation in the noun phrase, adjective, and verb slots (i.e. *noun phrase + adjective + enough to + verb*). Based on collocations alone, the headline *Employees Given List Of Doctors Shitty Enough To Accept Company's Health Insurance Plan* is congruent with how *enough to* is typically used, as all instances of *enough to* in Table 1 are preceded by a noun phrase (e.g. *list of doctors*), which itself precedes an adjective (e.g. *shitty*), and is followed by a verb (e.g. *accept*).

However, a comparison of the semantic preference of the COCA hits in Table 1 suggests that the extended unit of meaning containing *enough to* typically attracts adjectives that interact with the entire phrase to provide a positive evaluation of the noun phrase that occurs before *enough to* (e.g. neighborhoods *good enough to*, he is *healthy enough to*). This is true even when the inherent meaning of an adjective does not carry an obvious positive meaning (e.g. dining rooms are *small enough to* impart a feeling of comfort). Thus, when

Table 1: Top twenty adjective collocates to the left of *enough to + verb* in COCA: Newspaper.

Collocate	Freq.	Example
<i>good</i>	410	neighborhoods <i>good enough to</i> attract some visitors
<i>old</i>	308	I'm <i>old enough to</i> wear it now
<i>strong</i>	286	a central government <i>strong enough to</i> shape economic markets
<i>large</i>	280	a resort <i>large enough to</i> be a small county
<i>big</i>	250	hot tubs are <i>big enough to</i> move around in
<i>lucky</i>	188	I've been <i>lucky enough to</i> witness the northern lights
<i>smart</i>	164	we were <i>smart enough to</i> recognize what we had
<i>fortunate</i>	111	If you're <i>fortunate enough to</i> work at a small company
<i>small</i>	67	dining rooms are <i>small enough to</i> impart a feeling of comfort
<i>powerful</i>	58	That gun is <i>powerful enough to</i> pierce a bulletproof vest
<i>tough</i>	56	forming calluses <i>tough enough to</i> resist the sharpest stones
<i>healthy</i>	52	he is <i>healthy enough to</i> handle it
<i>serious</i>	45	criminal records <i>serious enough to</i> make them felons
<i>young</i>	44	he is <i>young enough to</i> score another opportunity
<i>confident</i>	41	consumers were <i>confident enough to</i> take out loans
<i>cool</i>	39	let it sit until <i>cool enough to</i> handle
<i>brave</i>	34	unable to find anyone <i>brave enough to</i> take the job
<i>high</i>	34	set a premium <i>high enough to</i> protect them
<i>dumb</i>	31	there are people <i>dumb enough to</i> buy every one of 'em
<i>mature</i>	31	We were not <i>mature enough to</i> handle it

taking semantic preference into account, the extended unit of meaning surrounding *enough to* in COCA functions on the whole to describe a preceding noun phrase as meeting some minimum requirement to complete a desirable outcome by possessing a quality that is desirable in that particular context.

There are two notable exceptions: *dumb* and *cool*. For *dumb enough to*, 27 of the 31 hits were used to construct a hypothetical scenario considering who might (e.g. “*but who would be dumb enough ...*”) or might not be dumb enough to do something (e.g. “*Americans would not be dumb enough to allow ...*”). The remaining four examples all constructed a past-tense narrative to question why someone or something had been dumb in a previous action (e.g. “*don't ask me why we were dumb enough to go out of our houses*”). The use of *cool enough to* appears to be used specifically for cooking instructions, as all 39 instance of this pattern were part of declarative statements informing the reader to wait until some cooking instrument was cool enough to touch. Thus, these two uses may represent two less common functions of this pattern.

The satirical headline *Employees Given List Of Doctors Shitty Enough To Accept Company's Health Insurance Plan* exploits this extended unit of meaning

by including an inherently negative adjective (i.e. *shitty*) to describe a preceding noun phrase in a negative light (i.e. that doctors are shitty) in order to meet a minimum requirement for a desirable outcome (i.e. obtain health coverage). Because this extended unit of meaning commonly describes the preceding noun phrase as possessing some positive or desirable attribute, the use of a *negative* description in the *Onion* headline overrides the primings associated with this pattern, creating a structural incongruity in the headline through the use of a low frequency collocation. Resolving the incongruity involves tapping into schema level knowledge that Americans possess about the state of health care coverage in the United States, specifically in regards to how health care in the United States is typically provided by employers and how unscrupulous employers attempt to exploit it.

A search for *shitty enough* on the main website for *The Onion* revealed that the newspaper has used this strategy in at least two other headlines:

- Museum Proudly Exhibits Picasso Shitty Enough To Be In Kansas City
- Nation Finally Shitty Enough to Make Social Progress

These two examples also follow the same pattern explained above, framing an entity as being able to reach a minimum threshold through the possession of a negative rather than a positive attribute. Picasso paintings are typically held in high regard, and by describing one as *shitty enough*, a reversal of (the typically positive) evaluation has occurred, with the ultimate target of the satire being directed towards Kansas City as only being worthy of hosting “shitty” Picasso paintings. The second example casts a negative evaluation on the United States population. In the headline, *social progress* refers to the election of former U.S. President Barack Obama in 2008 and assumes that the main reason Obama was elected was due to the many economic and social problems that were important issues during the 2008 presidential election. It was not until the United States was facing many social problems that the electorate was willing to make social progress, represented by electing the first black president of the United States. Much like the previous two headlines, this headline relies on overriding expectations and primings (i.e. an act of social progress typically reflects positively on an entity) in order to achieve a humorous effect while satirically criticizing the American populace.

In the previous three examples, the use of the word *shitty* is a strong departure from typical news genre language and may greatly aid a reader in inferring a satirical interpretation. In other words, the presence of the word *shitty* in a purported newspaper headline may be enough to signal to a reader that the headline is not serious (i.e. satirical), and the low frequency of the collocation *shitty enough to* may not factor into this recognition. Therefore, it is important to

examine how effective this strategy is with less obvious priming deviations. A search on the main website of *The Onion* for *enough to* revealed that many other headlines contain the *enough to* pattern without the word *shitty*. Some headlines operated in a similar fashion to those examined above by including negative adjectives before *enough to* and altering the overall evaluative meaning of the utterance through the use of low-frequency collocations. This strategy was expanded to include preceding adverbs or negating modifiers in order to achieve the same effect, with positive outcomes being achieved and negative outcomes being avoided.

- Kids Love When Mom Sad Enough To Just Order Pizza
- Michigan Fans Thankful Program No Longer Relevant Enough To Be Humiliated On National Stage
- Encouraging Economic Report Reveals More Americans Delusional Enough To Start Their Own Business

However, other strategies for overriding primings associated with this phrase emerged from the data. For example, some headlines functioned by retaining the semantic preference for positive or neutral adjectives before *enough to*, but instead included a negative or undesirable end goal, generating an overall negative connotation at the larger phrasal level. This strategy therefore relies less on deviations from collocational patterns and more on expectations of evaluation that occurs when using *enough to*. The entity in the headline is evaluated as possessing a positive attribute in order to meet a minimum requirement necessary to complete an action, in line with typical uses of *enough to*. The inclusion of an undesirable end goal, however, subverts expectations of the end goal being positive and may represent a form of intentional bathos,¹ i.e. “when the writer overshoots the mark and drops into the trivial or the ridiculous” (Abrams and Harpham 2009:24).

- Study: More Couples Delaying Divorce Until Kids Old Enough To Remember Every Painful Detail
- New Employee Still Eager Enough To Pick Up Slack For Coworkers
- Man’s Insecurities Versatile Enough To Be Projected Onto Any Situation
- Man Old Enough To Know How Rest Of Life Pretty Much Plays Out
- Band Dreams Of One Day Becoming Popular Enough To Alienate Early Fan Base

¹ Many thanks to the anonymous reviewer who suggested the inclusion of bathos.

- Report: Still Hasn't Been Long Enough To Open Restaurant Called Bin Laden's
- China Unable To Recruit Hackers Fast Enough To Keep Up With Vulnerabilities In U.S. Security Systems

Other examples played with both the evaluation of the entity (positive or negative) and the end goal (desirable or undesirable).

- Study: Majority Of Americans Not Informed Enough To Stereotype Chechens
- Parents Worried Children Old Enough To Remember Family Vacation
- Area Woman Not Good Enough Artist To Justify Eccentricities

Other headlines included a mundane or unremarkable end goal. While not a complete departure from primings associated with this pattern, these examples still exploit expectations of a positive final outcome associated with *enough to*.

- Man Searching For Part Of Chicken Tender Thin Enough To Fit Into Plastic Dipping Sauce Cup
- Family Wealthy Enough To Have The Kind Of Refrigerator Doors That Blend Into Cabinets
- Song Deemed Good Enough To Put Girlfriend On Shoulders
- Party Not Big Enough To Move Out Of Kitchen Yet

Finally, some examples included a fictional or hypothetical end goal, the results of which cast a negative light on an entity named in the headline, or was simply so fantastical as to create a non-serious, mirthful interpretation.

- Santorum Nostalgic For Time When Beliefs Were Outlandish Enough To Make Headlines²
- Detective Not Sure He Was Close Enough To Partner To Endlessly Pursue Killer

The results of this analysis suggest the primings inherent to the extended unit of meaning surrounding *enough to* are subverted when used in satirical *Onion* headlines. While the inclusion of the word *shitty* explicitly subverts lexical primings (i.e. collocates), the majority of the examples appear to violate primings at the level of semantic preference, primarily functioning by reversing an expected positive or desirable evaluation into a negative or undesirable evaluation. This can be done by including lexical items that reverse the positive

² This headline refers to U.S. politician Rick Santorum, who competed for nomination to run as a republican in the 2012 U.S. presidential race.

evaluation inherent in the adjectives used (such as adjectives and negation markers), or also by including undesirable or unremarkable end goals, or a combination of both.

6.2 Example 2: *death toll*

During the 2014 Winter Olympics held in Sochi, Russia, *The Onion* published the following headline: *Russian Officials Promise Low Death Toll For Olympics*. This headline is recognizable as satire due to the clash of using *death toll* to describe the Olympics, typically seen as a peaceful international event where any deaths would be unexpected and tragic. Immediately, it appears that the use of *death toll* may violate primings related to semantic preference, similar to what was seen with the previous examples. Indeed, a search in COCA reveals this effect is based on a collocational deviation involving the adjectives occurring before *death toll*.

An examination of all the adjectives occurring within a span of four spaces to the left of *death toll* in COCA and the COCA: Newspaper subsection revealed that *low* is rarely used to modify *death toll* (two hits in COCA), and that the most frequent preceding descriptors of *death toll* either specify those who died, describe a death toll as rising or ongoing, or describe a death toll as a final, total count (see Table 2). Thus, *low* is an adjective that does not commonly collocate with the pattern *death toll*, overriding primings associated with the phrase.

Table 2: Top ten left collocates for *adjective + death toll*, within a span of four spaces.

COCA: Full		COCA: Newspaper	
Collocate	Frequency	Collocate	Frequency
<i>official</i>	41	<i>civilian</i>	13
<i>civilian</i>	25	<i>rising</i>	8
<i>rising</i>	22	<i>official</i>	8
<i>final</i>	18	<i>mounting</i>	5
<i>American</i>	14	<i>overall</i>	5
<i>overall</i>	13	<i>final</i>	4
<i>mounting</i>	12	<i>highest</i>	4
<i>high</i>	12	<i>American</i>	3
<i>total</i>	12	<i>higher</i>	3
<i>annual</i>	11	<i>daily</i>	3

An examination of the 100 most frequent collocates in this adjective slot confirms the results in Table 2. Aside from a few exceptions (discussed below), the

semantic preference for *adjective + death toll* includes words related to types of people (e.g. *civilian, American, Palestinian*), growing or final measurements (e.g. *overall, confirmed, official*), and negative adjectives (e.g. *horrific, horrendous*). An analysis of the larger contexts also revealed that *death toll* is most commonly used in contexts of international conflict and wars. The two instances of *low death toll* in COCA were used in contexts where the death toll was an unexpected outcome, suggesting the typical expectation in those situations was for a death toll to be large. The first discussed a terrorist attack on a civilian airplane in Israel, the second regarding the results of a hurricane.

- “In the end, the *low death toll* from the combined attacks seemed to be little short of a latter-day Chanukah miracle”
- “Pastors who were astonished at the *low death toll* at the height of the wind are now equally shocked and dismayed”

There were also two occurrences of *lower death toll* and two occurrences of *reduced death toll*. For the two examples of *lower death toll*, the first instance described the lower of two conflicting estimates, while the second discussed the effectiveness of pre-screening procedures for cervical cancer. *Reduced* was used in a similar manner, with both examples describing the results of a death toll being lowered.

Two final exceptions are *miniscule* and *modest*, (one instance each). *Miniscule* was used in a narrative of past events about ship integrity during the Second World War: “Word got around that Liberty ships were breaking apart at sea, drowning thousands of merchant seamen—a wild exaggeration of the *minuscule death toll* caused by fractures.” The example of *modest* provides evidence that *death toll* associates with relatively large numbers of dead: “‘So far, a *modest death toll*,’ the reporter was saying. ‘Sixty-five people killed in the conflict ...’”

Aside from these exceptions, the evidence from COCA largely suggests that *death toll* is most commonly associated with descriptions of rising or ongoing deaths due to some form of international conflict, signaled by the adjectives and nouns preceding it. These features are not present in the *Onion* headline *Russian Officials Promise Low Death Toll For Olympics*. Instead, this headline uses an extremely rare modifier for *death toll* (i.e. *low*), and discusses an event typically associated with international harmony, not conflict. For a reader, expectations for both collocational and evaluative primings are not met and may work to signal satirical intent on the part of the author.

Expanding the scope even further to the left of the collocation *death toll*, the verb slot before the preceding adjective to *death toll* is typically filled by verbs associated with reporting details (e.g. *put, said, raised, estimated*). Thus, much

like *enough to*, the collocation *death toll* is part of a larger extended unit of meaning, which can be defined as *reporting verb + adjective of certainty, nationality, or ongoing process + death toll*. Aside from using an infrequent adjective collocate immediately before *death toll*, this *Onion* headline also employs a verb (i.e. *promise*) that is not seen in any of the COCA data. Thus, the headline “*Russian Officials Promise Low Death Toll For Olympics*” violates at least two collocational primings. The type of verb and the type of adjective used in the *Onion* headline are unexpected and clash with expected words associated with this extended unit of meaning.

Furthermore, based on the COCA data, the semantic preference of the noun phrases associated with *death toll* typically attracts nouns indicative of international conflict or war. The use of *Olympics* in the *Onion* headline also flouts this expectation because it is discussing an international event associated with peaceful international competition. At first glance, this headline does not appear to contain as explicit a violation as *shitty enough to*, but this analysis reveals this headline still deviates from lexical expectations based on corpus frequency, evidence that the author is purposefully overriding primings (Hoey 2005).

In order to provide further support for these findings, a search on the main page of *The Onion* for *death toll* was conducted and revealed the following additional headlines:

- Syria Death Toll Hits 100,000: Trouble In Paradise?
- Bush Quietly Rolls Back Iraq Death Toll To Zero
- Tsunami Death Toll Rises To 36 Americans
- Household Death Toll Climbs To One

These headlines also exploit the extended unit of meaning containing *death toll*. The first example uses *death toll* in linguistically expected ways, but then clashes it with the phrase *trouble in paradise*, the title of a movie from the 1930s and a phrase now typically associated with romantic rifts between lovers. Describing a high death toll as an indicator of romantic troubles flouts the typically romantic implication the phrase *trouble in paradise* evokes, resulting in a clash between positive and negative connotations and primings associated with the phrase.

In the second example, the *death toll* is described as a measurement that can be *rolled back* in a similar manner to a clock or film reel. As the COCA data revealed, *death toll* is most commonly associated with a rising, ongoing, or finalized count, which can be *reduced* or *lowered* based on new information, but never *rolled back*, and therefore this headline also deviates from lexical primings associated with *death toll*. While the third example does not immediately violate any lexical or grammatical primings, the news article it is associated with

was written about the deadly 2014 tsunami that affected numerous countries near the Indian Ocean and killed hundreds of thousands of people. The headline is thus focused only on the American deaths and downplays the larger death toll, with the intention of satirizing the tendency for the US or western press outlets to overemphasize news that happens to nationals of those countries as compared to others. Thus, this headline uses expected linguistic patterns in a contextually incompatible way to evoke satire on a very local level. Most news coverage of the tsunami focused on the large loss of life, and to see an article focus only on American deaths violated the contextualized primings associated with the incident (i.e. that the tsunami's death toll impacts more than just Americans). Therefore, the violation of expectations in this example appear to expand beyond extended units of meaning and rely heavily on more genre and discourse level features (Goatly 2017; Simpson 2003; Tsiamita 2009).

Finally, the fourth example violates the semantic preference of *death toll* by describing a *death toll* in terms of a single death. Semantically, *death toll* patterns with descriptions of high numbers of dead, evidenced by the rarity of adjectives describing small death tolls, and also by the example of 65 deaths being described as a *modest death toll*. Much like the findings for *enough to*, the results for *death toll* indicate that *Onion* headlines can invoke a sense of satire by violating and reversing expected linguistic primings.

6.3 Example 3: *military action*

The third example is a less straightforward example of a violation in primings: “*Obama Not Ruling Out U.S. Military Action In Congress.*” The satire in this headline is intuitively signaled through the use of *military action* being used to describe the executive actions of the U.S. President in the context of the U.S. congress, but could be interpreted to mean either military action against congress, or a discussion of military action with congress. A focus on the preposition and phrase occurring after *military action* is necessary in order to reveal if this is a deviation from typical linguistic patterns.

The collocation *military action* occurs 2,254 times in COCA and is followed immediately by a preposition 702 times. Almost 85% of the prepositions that follow *military action* are *against* or *in*. A further expansion of the search reveals the pattern *military action* + *preposition* + *noun phrase* occurs 417 times in COCA, suggesting that it is a relatively fixed extended unit of meaning. The most frequent nouns that fill the noun slot after *military action* are locations (e.g. *Iraq*, *Taiwan*, *bases*) leaders of countries (e.g. *Saddam*, *Gadhafi*), and entities (e.g. *terrorists*). Semantically, all of the noun phrases are related to

international conflict and represent legitimate targets for military aggression. However, the initial interpretation of the headline “*Obama Not Ruling Out U.S. Military Action In Congress*” assumes military action can be taken against the United States congress (by the United States itself), a non-foreign entity and one that is not a valid target of attack. In other words, this headline swaps in *congress* to stand for typical targets of warfare, prompting a satirical interpretation due to the deviation from typically expected semantic preference (i.e. primings) of nouns in that slot.

A search for *military action* on the main page of *The Onion* revealed two other headlines using the same pattern:

- *The NFL’s History Of Military Action*
- *Lee Greenwood Urges U.S. To Take Military Action Against Iraq*

Unlike the example using *congress*, both of these examples operate by exploiting primings related to words preceding *military action*. A COCA search for noun phrases preceding *military action* revealed a similar preference to the noun phrases occurring after *military action*: only names of countries or leaders of nations were typically associated with *military action*. Thus, it goes against expected semantic preference to place the NFL (National Football League), a professional American sports organization, as an agent capable of military action (and also quite ridiculous, providing another example of intentional bathos). The second example is similar because it places Lee Greenwood, (an American country music singer who enjoyed fame from patriotic songs made popular after the events of 9/11), as an entity capable of requesting military action from the United States. In both examples, deviations from expected semantic preference of noun phrases preceding *military action* along with intentional bathos on the part of *The Onion* signals satirical intent to a reader through overridings of primings, which is amplified through schema knowledge of American society and culture.

7 Discussion

This study investigated specific linguistic patterns in humorous satirical headlines in order to test whether these patterns deviated from linguistic expectations (i.e. primings). The results of this analysis suggest that violation of primings can be found in many satirical headlines, which may in turn provide an additional cue for a hearer in reaching a satirical and humorous interpretation. Although this analysis began with just three headlines, two of which were

somewhat obvious examples of satire, the patterns existing in those headlines expanded to include a larger number of satirical headlines with less overt lexical cues marking the headlines as satire. As such, a generalized strategy for *Onion* headlines to employ language that subverts primings was revealed.

In the headlines studied here, deviations in primings occurred through the use of low-frequency collocations (e.g. *low death toll*) which also served to subvert expectations of semantic preference (e.g. positive adjectives associated with *enough to*). These findings can be explained in terms of Simpson's (2003) model of satire as humorous discourse. Specifically, deviations from primings can serve to represent the dialectic phase of satire recognition, where the primings represent a structural incongruity in the verbal composition of the satire, which in turn clash with the prime (i.e. genre and background knowledge expectations) and prompt reconsideration of the meaning of the utterance (i.e. uptake), which may lead towards a satirical and humorous interpretation from a sympathetic reader.

Satire relies heavily on background knowledge of social and cultural contexts, and this was apparent in some of the headlines investigated here. While many headlines included priming deviations explicitly signaling that a headline might not be sincere (e.g. the use of *shitty* in a newspaper headline), in some instances these deviations alone would not allow for a satirical interpretation unless the reader possesses enough background knowledge in order to interpret the satirical message. For instance, a reader unfamiliar with Rick Santorum, Lee Greenfield, or the NFL may possess a hunch that the satirical headlines containing these entities are placing these entities in unexpected semantic slots, but may not be able to fully ascertain their appropriateness (and thus not fully understand the satirical message of the headline).

Furthermore, at least one of the examples, devoid of context, contained no deviations from primings at the level of collocation, colligation, or semantic preference (i.e. *Tsunami Death Toll Rises to 36 Americans*). Instead, this example relied on a clash between discourse and genre expectations, which could only be reached through exposure to other headlines covering the same event. Thus, this headline deviated from primings associated with knowledge of genre and discourse conventions but contained no structural incongruities. Accordingly, this is evidence that not all examples of satirical headlines need to contain overt deviations from lexical primings. Goatly (2012, 2017) noted a similar phenomenon in some examples of verbal humor.

Simpson (2003) noted that "humorologists seem almost to have gone out of their way to avoid satire" (p. 45). By examining humorous satirical headlines from the perspective of Lexical Priming, this study provides a much needed linguistic account of humorous satirical headlines. However, *Onion* headlines must pack a

satirical message into a relatively limited linguistic space (i.e. a single sentence), and therefore may need to rely more heavily on deviations from primings in order to orient a reader towards a satirical message. Other types of verbal satire, such as satirical product reviews or full satirical news stories, may have more leeway in how they signal a satirical intent through linguistic means, and future studies into different manifestations of satire are warranted.

Acknowledgements: Many thanks to Dr Ute Römer who provided me with the guidance and insight necessary to complete this analysis.

References

- Abrams, Meyer Howard & Geoffrey Harpham. 2009. *A glossary of literary terms*, 9th edn. Boston, MA: Cengage Learning.
- Boukes, Mark, Hajo G. Boomgaarden, Marjolein Moorman & Claes H De Vreese. 2015. At odds: laughing and thinking? The appreciation, processing, and persuasiveness of political satire. *Journal of Communication* 65(5). 721–744.
- Davies, Mark. 2008. *The corpus of contemporary American English*. BYE, Brigham Young University.
- Dynel, Marta. 2009. *Humorous garden-paths: A pragmatic-cognitive study*. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
- Forabosco, Giovannantonio. 1992. Cognitive aspects of the humor process: the concept of incongruity. *Humor* 5(1/2). 45–68.
- Forabosco, Giovannantonio. 2008. Is the concept of incongruity still a useful construct for the advancement of humor research?. *Lodz Papers in Pragmatics* 4(1). 45–62.
- Goatly, Andrew. 2012. *Meaning and humour*. New York, NY: Cambridge University Press.
- Goatly, Andrew. 2017. Lexical priming in humorous discourse. *European Journal of Humour Research* 5(1). 52–68.
- Hanks, Patrick. 2013. *Lexical analysis: Norms and exploitations*. Cambridge, MA: MIT Press.
- Hoey, Michael. 2005. *Lexical priming: A new theory of words and language*. London; New York: Routledge.
- Johnson, Ann, Esteban Del Rio & Alicia Kemmitt. 2010. Missing the joke: A reception analysis of satirical texts. *Communication, Culture & Critique* 3(3). 396–415.
- LaMarre, Heather L., K. D. Landreville & M. A. Beam. 2009. The irony of satire: Political ideology and the motivation to see what you want to see in The Colbert Report. *The International Journal of Press/Politics* 14(2). 212–231.
- LaMarre, Heather L., Kristen D Landreville, Dannagal Young & Nathan Gilkerson. 2014. Humor works in funny ways: Examining satirical tone as a key determinant in political humor message processing. *Mass Communication and Society* 17(3). 400–423.
- Lee, Hoon & Nojin Kwak. 2014. The affect effect of political satire: Sarcastic humor, negative emotions, and political participation. *Mass Communication and Society* 17(3). 307–328.
- Louw, Bill. 1993. Irony in the text or insincerity in the writer? The diagnostic potential of semantic prosodies. In Mona Baker, Francis Gill & Elena Tognini-Bonelli (eds.), *Text and Technology: In honour of John Sinclair*, 157–176. Philadelphia, PA: John Benjamins.

- Nilsen, Alleen & Don Nilsen. 2008. Literature and humor. In Victor Raskin (ed.), *The primer of humor research*, 243–280. New York, NY: Mouton de Gruyter.
- Partington, Alan. 2007. Irony and reversal of evaluation. *Journal of Pragmatics* 39(9). 1547–1569.
- Partington, Alan. 2009. A linguistic account of wordplay: The lexical grammar of punning. *Journal of Pragmatics* 41(9). 1794–1809.
- Partington, Alan. 2011a. “Double-speak” at the White House: A corpus-assisted study of bisociation in conversational laughter-talk. *Humor* 24(4). 371–398.
- Partington, Alan. 2011b. Phrasal irony: Its form, function and exploitation. *Journal of Pragmatics* 43(6). 1786–1800.
- Ritchie, Graeme. 2004. *The linguistic analysis of jokes*. London, UK: Routledge.
- Ritchie, Graeme. 2009. Variants of Incongruity Resolution. *Journal of Literary Theory* 3(2). 313–332.
- Simpson, Paul. 2003. *On the discourse of satire: Towards a stylistic model of satirical humour*. Philadelphia, PA: John Benjamins Publishing.
- Sinclair, John. 1991. *Corpus, concordance, collocation*. New York, NY: Oxford University Press.
- Sinclair, John. 2004. *Trust the text: Language, corpus, and discourse*. New York, NY: Routledge.
- Skalicky, Stephen & Scott Crossley. 2015. A statistical analysis of satirical Amazon.com product reviews. *The European Journal of Humour Research* 2(3). 66–85.
- Stewart, Craig O. 2013. Strategies of verbal irony in visual satire: Reading The New Yorker’s “Politics of Fear” cover. *Humor* 26(2). 197–217.
- Stubbs, Michael. 2001. *Words and phrases: Corpus studies of lexical semantics*. Oxford: Blackwell Publishers.
- Suls, Jerry. 1983. Cognitive processes in humor appreciation. In Paul E McGhee & Jeffrey H Goldstein (eds.), *Handbook of humor research*, 39–57. New York, NY: Springer.
- Tsiamita, Fanie. 2009. Polysemy and lexical priming: The case of *drive*. In Ute Römer & Rainer Schulze (eds.), *Exploring the lexis-grammar interface*, 247–264. Philadelphia: John Benjamins.
- Yus, Francisco. 2003. Humor and the search for relevance. *Journal of Pragmatics* 35(9). 1295–1331.
- Yus, Francisco. 2017. Incongruity-resolution cases in jokes. *Lingua* 197. 103–122.

Bionote

Stephen Skalicky

Stephen Skalicky received his PhD from the Department of Applied Linguistics at Georgia State University in 2018. His research focuses on variables that affect the comprehension and production of figurative language using psycholinguistic, corpus, and natural language processing methods. His work has appeared in *Language Learning*, *Discourse Processes*, and *Journal of Pragmatics*.