Sticky and Sneaky Metaphors

Identifying Four Syntactic Features of "Sticky" Metaphors in Discussions of Crime

Caroline Stickel

Metaphors that utilize the intersection of temperature and emotion—referred to in this article as "sticky" metaphors—play a key role in the outcomes of the court cases in which they are used, as established in previous research. Though there have been studies on their prevalence, none have yet analyzed the syntactic features of sticky metaphors. This study examines how these metaphors are used to describe crime to the public by conducting a corpus analysis of the popular true-crime program Dateline NBC. *In order to better alert public citizens to the occurrences of these metaphors and their potential for introducing bias, four key syntactic formulas that frequently contain these metaphors are identified.*

Metaphor and the law are tightly intertwined. Metaphors of all kinds help to explain difficult concepts, and there are many difficult concepts to explain to a jury in the courtroom. However, lawyers who use metaphors use "the traditional device of persuasion," which awards them great influence over the way the law is interpreted (Ebbesson, 2012, pp. 268–69). A jury's interpretation of the law then determines its decision and, by extension, the defendant's future.

There are numerous possible avenues for analyzing metaphors in law, but this study will focus on a very specific category of metaphors: those related to both temperature (heat and cold) and human emotion. These metaphors are particularly common and instinctual because some emotions cause a rise or drop in body temperature (a phenomenon discussed in further detail in this study's literature review). Their prominence and intuitiveness give these metaphors the potential to influence the outcomes of court cases more than any other form of language manipulation, potentially affecting thousands of lives.

Literature Review

The abundance of previous research on temperature metaphors marks the significance of their use in language. In her book *The Linguistics of Temperature,* Koptjevskaja-Tamm (2015) pinpoints the reason for this prevalence: "Temperature phenomena are crucial for all living beings . . . and are relatively easily perceptible by them, particularly when they deviate from the norm" (p. 1). Likewise, the relationship between temperature and emotion is universally experienced; it is a cross-cultural association. Psychophysiological tests from around the world have established that anger causes a rise in body temperature (Gevaert, 2005, pp. 196–97). Conversely, Ijzerman et al. (2012) found that the feeling of exclusion leads to a drop in skin temperature, and that exposure to a source of warmth, such as a warm drink, has the power to diminish this feeling (p. 283). This universal connection between emotion and temperature has birthed metaphors in various languages around the world. Gevaert (2005) identified such metaphors in seven languages: English, Japanese, Chinese, Hungarian, Zulu, Wolof, and Chickasaw (p. 196).

Percy et al.'s 2011 study dubbed metaphors that lie at the intersection of temperature and emotion "sticky metaphors," and this

study uses the same term. This name comes from the tendency of these metaphors to "stick around" in the language because they are derived from the human body's physiological responses to emotions. It is impossible to change or get rid of these sticky metaphors because we do not determine the phenomena that created them (pp. 386–88). Kövecses (2000) listed many of these sticky metaphors in her book *Metaphor and Emotion: Language, Culture, and Body in Human Feeling,* including "anger is fire," "anger is hot fluid in a container," fear is a "drop in body temperature," "happy is warm," and "sadness is a lack of heat" (pp. 21–25).

Literature on Sticky Metaphors in Criminal Law

One main repercussion of using these sticky metaphors in a court of law, according to Percy et al. (2011), is the "heat of passion" argument lessening a verdict from capital murder to voluntary manslaughter (pp. 389–90). The primary example these researchers give of this argument is in the defense of a man who, having no prior knowledge of any infidelity, walks in on his wife with another man and subsequently kills him (Percy et al.). In contrast, these sticky metaphors do not benefit a woman who is abused by her husband and, after enduring ill treatment for an extended period of time, "freezes up" due to fear and kills her abuser "in cold blood" (pp. 421–22). Because the man's crime was not premeditated, he receives the voluntary manslaughter verdict, which cuts his sentence in half, while the woman is awarded no such relief (Percy et al., p. 390).

As unfair as these applications of sticky metaphors in the courtroom may be, metaphor is an unavoidable and endlessly useful part of language. According to Ebbesson (2012), we often explain the world around us through metaphor (p. 269). Metaphors use a "source domain," a familiar or concrete concept, to explain a "target domain," which is typically a more difficult or abstract concept (Richard, 2014, p. 1). This makes it a particularly useful device for lawyers tasked with explaining abstract concepts to a jury. However, "a metaphor cannot but convey a point of view imposed by the source domain," resulting in it becoming a *highly* persuasive device (p. 9). Metaphors can clearly display some aspects of an argument while almost perfectly concealing others (Ebbesson, 2012, p. 269). Indeed, "no one notices they are metaphors until problems occur" (Berger, 2012, p. 2), and in the realm of criminal law, these problems include convicting the innocent and acquitting the guilty.

The Present Study

Past corpus-based research has shown the prevalence of these sticky metaphors in language. Deignan (1997) queried the Bank of English, a British English corpus of 323 million words, for various key words that are often involved in metaphors, including a few related to temperature such as "heated" and "blow" (pp. 142–45). Gevaert (2005) conducted a historical corpus analysis specifically for the sticky metaphor "anger is heat." She queried a corpus of historical texts from Old English to Middle English and found that the "anger is heat" sticky metaphor arose between the years 850 and 950 (pp. 198–99). Though past research proves that there is much to be discovered about sticky metaphors, it also reveals a gap: no corpus analysis of sticky metaphors in modern American English has been conducted. This study fills that gap, offering insight via corpus analysis into modern American usage of sticky metaphors and their common syntactic features while simultaneously focusing on their usage in discussions of criminal law.

Lawyers use sticky metaphors as manipulative tools to sway jurors and influence the outcomes of court cases. To limit their susceptibility to these manipulations, jurors must single out the sticky metaphors in use. While this study alone cannot ensure that lawyers on either side of a case adopt the strategy of clearly identifying the opposing side's metaphors for the jury, it can assist everyday civilians—all of whom may serve on a jury someday—in becoming more aware of these metaphors and in learning how to identify them for themselves. To achieve that aim, the common syntactic features of sticky metaphors must be determined. Through the methods of research and analysis described below, this study provides a list of such features.

Methodology

To focus this study on how sticky metaphors are used to describe crime to the public, I downloaded online transcriptions of one hundred episodes of *Dateline NBC,* a TV program that relates information on criminal cases to civilian audiences. The show has a sizable audience, having reached 4.106 million viewers in its 2020–2021 season (Cuce, 2021, para. 1). The episodes chosen were *Dateline*'s one hundred most recent uploads, primarily from the year 2020. The total number of word tokens in this corpus is 967,184 with 21,297 word types.

Like Deignan's 1997 corpus-based study of metaphors, I began my research by listing key words and phrases, including lemmas, to query. Lemmas are used to find every tense and morphological variant of a word in a corpus and are written in all caps. The words and phrases in this list were compiled from the studies conducted on temperature and sticky metaphors described earlier. The list comprises nine words or phrases related to cold and nine related to heat, resulting in a total of eighteen queries. Because searching lemmas in AntConc (Laurence Anthony's corpus analysis software) requires using regular expressions, the appendix provides a list of the regular expressions used for these queries. Table 1 shows each query and the number of results it returned.

I began my analysis by examining the concordance lines for each of these key words and phrases, determining which of the results involved sticky metaphors. Using only the ones containing sticky metaphors, I then copied and pasted the concordance lines with similar syntactic features (clausal and phrasal structures, verb tenses, and word order) into a document to track commonalities. Next, I generated lists of collocates (five to the left and five to the right, with a minimum frequency of three) for each word and phrase, examining not only the collocates themselves but also their parts of speech to identify potential common syntax.

Results

As shown in Table 1, many of my queries did not produce a fruitful number of results. The few that did, however, yielded valuable data which contributed to this study's goal of identifying key syntactic features to look for when examining sticky metaphors. The most prolific queries were "cold blooded," "BOIL," "BURN," and "EXPLODE." Accordingly, this section provides four syntactic formulas for sticky metaphors containing these four words and phrases.

Table 1
Queries Related to Cold and Heat and Their Frequencies

Query	Count	Query	Count
"Cold blooded"	23	"Heat of passion"	1
"KILL in cold blood"	1	"SEE red"	2
"Cool off"	1	"Hot blooded"	0

"Coldly"	0	"BOIL"	12
"Cool and collected"	0	"BURN up with anger"	1
"Goosebumps"	1	"BURN hot"	1
"FREEZE up"	1	"BURN"	85
"Frozen with fear"	0	"BURST"	14
"Chill RUN down POSS spine"	0	"EXPLODE"	14

"Cold Blooded" + "Killer" or "Murderer"

The compound adjective "cold blooded" (without the hyphen) proved to be this study's only fruitful query related to cold temperatures. The absence of the hyphen is explained by the fact that these are transcriptions of a television show, not professionally edited written texts. Querying "cold blooded" in AntConc's concordances feature revealed that this phrase occurs a total of twenty-three times in the *Dateline NBC* corpus. An examination of the concordance lines containing "cold blooded" revealed that all are involved in sticky metaphors. The compound adjective is a sticky metaphor itself; combining "cold" with "blooded" inherently brings together temperature and emotion. Because of this, "cold blooded" by itself could be given to civilians with the recommendation that they pay special attention to it. However, in order to provide deeper syntactic details, I investigated the words that most commonly surround "cold blooded"—its most frequent collocates. Table 2 displays the results of this research.

Table 2

Common Collocates of "Cold Blooded"

Collocate	Frequency (left)	Frequency (right)
"Killer"	1	12
"Murderer"	2	3
"Murder"	1	2

"Killer," "murderer," and "murder" are the only lexical words that collocate with the phrase "cold blooded" three or more times (within the parameters of five to the right and five to the left); all other results were function words. Furthermore, the data from

this collocate list displays that "cold blooded" most often appears before the nouns "killer" and "murderer," not after. It is important to note that, though two of the five instances of "murderer" appearing near "cold blooded" occur to the left of that phrase, these two instances occur in the same sentence and are followed by another instance of "murderer" appearing to the right of "cold blooded." Thus, "cold blooded" most commonly appears as an appositive adjective. The phrases "DET cold blooded killer" (where "DET" refers to any determiner) and "DET cold blooded murderer" are extremely prevalent in this corpus, while "DET killer BE cold blooded" and "DET murderer BE cold blooded" are completely absent.

"BOIL" + Temporal Phrase

The lemma "BOIL" was the next query that produced a sufficient amount of results for examination, with twelve occurrences in this corpus. Of those twelve occurrences, four (shown in Table 3) were involved in sticky metaphors describing a build of emotion over time, eventually expanding beyond the capacity of its container. All four sticky metaphors containing "BOIL" are examples of Kövecses's (2000) "anger is hot fluid in a container" metaphor (p. 21), in which the hot fluid is a dangerous substance.

Table 3
Sticky Metaphors Containing the Lemma "BOIL"

Document	Concordance line
"Queen of the County"	"That pot had been at a slow *boil* ever since that day in 1963 when Bonny Harkey became stepmother to her husband, Riley's two boys, Bruce and John Bruce. And Johnny just didn't like Bonnie."
"The Inside Man"	"You know, people probably wouldn't understand the mounting pressure. That kettle is ready to *boil* over at any time, you know, and it just felt good to unload on the guy."
"The Man Who Talked to Dogs"	"Yes, we have, Your Honor. Emotions *boil* over. Here it was nearly one year after Mark Stover disappeared, the moment had come."
"Vanished–Amber Dubois and Chelsea King"	"The outrage boiled over as I think pretty much all of San Diego County is is completely disgusted with This."

Note: Sticky metaphors are in red, with instances of "BOIL" in italics and temporal expressions underlined.

The collocates of the lemma "BOIL" in this corpus are all function words, except for *case,* which refers to a criminal case, as in "the whole case will boil down to . . .". Because this finding falls outside of the parameters of the focus of the study, I focused my analysis on the concordance lines, which led to the conclusion that sticky metaphors involving "BOIL" often involve temporal or time-related phrases (underlined in Table 3). The ones that appear in the *Dateline NBC* corpus are "ever since that day," "at any time," and "one year after," which occur in three of the four sticky metaphors with "BOIL." In addition, these temporal phrases most often appear after the use of "BOIL" and not before.

"BURN" + Prepositional Phrase

The findings here are similar to those for "BOIL." The collocates of "BURN" are uninteresting; they comprise function words and direct objects of the literal use of the verb *to burn*. The lemma "BURN" occurs eighty-five times in this corpus, with the majority of the instances not involved in metaphors. Accordingly, the occurrences of sticky metaphors containing "BURN" are slim; I identified only one in the concordance lines produced by my query. However, as shown in Table 4, metaphors containing "BURN" are often followed by prepositional phrases (underlined in Table 4). Of the total fifteen occurrences in this corpus of "BURN" immediately preceding a prepositional phrase, six are metaphorical. The last one displayed in Table 4 is a sticky metaphor used to describe anger.

Table 4
All Metaphorical Phrases Containing the Lemma "BURN" in the Dateline NBC *Corpus*

Document	Concordance line	Sticky?
"Point Blank"	"But Johnny had been *burned* by her ex, who left her while she was pregnant with Jessica."	No
"Strangers on a Train"	"Tom Waring, who did not want the image *burned* in his brain, the dismal place, the love of his life lay dead"	No
"Mommy Doomsday"	"And soon there was a special guest, Chad Dibbell, the *burning* in my chest just so strong that I finally had no connection to Jesus that I've never felt before."	No

"Death of a Hometown Hero"	"They were bouncing checks left and right. I mean, they *burned* through all this money."	No
"The Woman at the Bar"	"Maybe she thought she could hide there forever, or maybe she was on the prowl for a new target. Which brings us to Bernadette Mathes *burning* to her friends and guests who became her new best friend."	No
"Manner of Death"	"And it was only then after she turned him in and he was in jail, facing years in prison, *burning* up with anger toward Holly that he called his attorney, Charlie Feliciana, to try to make a deal. You say, Charlie, get me the police."	Yes

(Note: Metaphors are in red, with instances of "BURN" in italics and prepositional phrases underlined.)

Name or Personal Pronoun + "EXPLODE"

There are fourteen instances of the lemma "EXPLODE" in this *Dateline NBC* corpus. Though those results yielded only two sticky metaphors, they allowed me to contrast the non-metaphorical instances, the metaphorical instances, and the sticky metaphorical instances involving "EXPLODE." Like "BOIL" and "BURN," the main collocates of this lemma are function words. However, this finding led to a valuable analysis. The singular, first-person pronoun "I" occurs three times in front of the lemma "EXPLODE" in this corpus. Following this line of investigation, I examined the concordance line results for "EXPLODE," paying attention to the subject of each sentence. The results are shown in Table 5.

Table 5
A Selection of Metaphorical Phrases Containing the Lemma "EXPLODE" in the Dateline NBC *Corpus*

Document	Concordance line	Sticky?
"Toxic"	"Steven Chapelle was the match that lit that dynamite and *exploded*. But somebody took action."	Yes
"Conduct Unbecoming"	"This sort of news would *explode* like a bomb."	No

"The Life and Death of Princess Diana"	"Then just weeks before the wedding, Diana's <u>concerns</u> about Camilla suddenly *exploded* in an incident that wasn't reported at the time she came across a present between Charles and Camilla."	No
"The Inside Man"	"And at the tender age of 17, he moved to Chicago, where the <u>business</u> and <u>profits</u> *exploded*."	No
"The Monster at Large"	"I just didn't really realize how <u>I</u> could *explode* one day. But at the point I am now, I regret everything that I ever did."	Yes

(Note: Metaphors are in red, with instances of "EXPLODE" in italics and the sentence's agent underlined.)

Identifying the agent of each sentence—the noun doing the exploding—revealed the two main avenues for metaphorical usage of "EXPLODE" in this corpus: the sticky metaphor involving the explosion of feeling (conveying destruction), and the metaphor of an explosion spreading some entity, such as information, ideas, or money. In the sticky metaphors involving "EXPLODE," the agent is a person's name (or, in the case of the first concordance line in Table 5, a subject complement for a person's name) or a personal pronoun. The agents of the other metaphors are not nouns referring to people.

Discussion

Previous research has established the prevalence of sticky metaphors and their influence on courtroom proceedings. This study goes one step further by identifying four common syntactic formulas of sticky metaphors through examination of a corpus of transcriptions of *Dateline NBC*. These formulas may be useful in distinguishing sticky metaphors from non-metaphorical and generally metaphorical instances of "cold blooded," "BOIL," "BURN," and "EXPLODE." Although, because the research here was conducted in a corpus of only one TV program, it is possible that the findings will not apply to other kinds of texts, even true crime programs similar to *Dateline*. However, *Dateline NBC* episodes are not aired by one reporter alone, but a handful of reporters who interview a plethora of witnesses and perpetrators. Because the language of various people is represented in *Dateline,* this study's findings have the potential for broad application.

The four syntactic formulas listed herein are not obscure or uncommon structures. Indeed, it makes sense that "cold blooded" is most often followed by "killer" and "murderer" in this corpus because we simply do not describe burglars or forgers as "cold blooded." Perhaps this is because, though we cannot condone their actions, we can at least understand their motivation—money—while we rarely accept the motivation of a murderer. "Cold blooded killer" and "cold blooded murderer" seem to have become hot phrases in crime reporting, courtroom proceedings, and even crime TV shows. They carry emotion behind them, as well as the clear image of a ruthless, bloodthirsty criminal devoid of humanity. Jurors' minds will develop this image when they hear "cold blooded killer" or "cold blooded murderer" uttered by the prosecuting attorney. It is a sticky metaphor that seems to say, "This person has no warm feelings nor tender emotions. They don't have a human's warm blood." Jurors who can identify this metaphor's underlying logic can then decide for themselves whether to accept that logic.

The concentration of "BOIL" followed by a temporal phrase is best explained by the nature of hot liquid in a container: it takes time to reach its boiling point. This sticky metaphor thus gives jurors the idea that feelings of anger and resentment had been building in the defendant over time and eventually "boiled over," the option of "cooling down" long gone. This metaphor can certainly be used as rationalization for a criminal action, revealing a potentially harmful nature like that of "cold blooded." However, unlike the formula for "cold blooded," this syntactic string is most likely to be used by defense lawyers (Percy et al., 2011, p. 396). When the emotions of a perpetrator are described as "boiling," the sticky metaphor in play attempts to portray a harmful action as the natural result of time passing, and consequently an inevitable—or even justified—action. Juries should be aware of that underlying argument.

The formula "BURN" followed by a prepositional phrase is perhaps the weakest of the formulas; it applies to only one sticky metaphor in this corpus. It is, however, worth noting that "burning up with anger" is that sole sticky metaphor. Further research on a larger corpus can perhaps identify the prevalence of the phrasal verb "burn up" in sticky metaphors. Despite this continuing gap in research, jurors can still be encouraged to pay attention to "BURN" followed by a prepositional phrase because this construction contributes highly to the formation of various

metaphors (sticky and otherwise) that may cast the case in a certain light. As with the formula for "BOIL," the syntactic string for "BURN" gives defense attorneys the opportunity to argue that a defendant's actions were the result of some external factor; they can employ the imagery of something causing a spark to light inside the defendant that consumes them with rage. Jurors' minds conjure up an image of a person whose emotions have made them weak, pitiful, and harmless. It is possible that this is a constructed narrative rather than reality.

Lastly, the construction "EXPLODE" preceded by a name or personal pronoun creates sticky metaphors by implying that one's emotions cause them to lose control and bring about destruction. When reporters or attorneys say that someone "exploded," they are painting that person as dangerous, uncontrollable, and perhaps even lethal. Accordingly, sticky metaphors with "EXPLODE" are more likely to be used by the prosecution. "BURN" and "BOIL" convey largely contained disasters, which affect only the accused, while "EXPLODE" carries images of widespread disasters affecting many. "EXPLODE" thus appears to be more violent than "BURN" or "BOIL," emphasizing that the defendant is a ticking time bomb waiting to cause even more damage. When jurors see through this metaphor, they can consider the facts and evidence of the case without the bias this imagery creates.

Conclusion

Metaphors are easily ingrained into our subconscious thought processes, influencing our decisions and the outcomes of those decisions. In a court of law, those decisions include convictions, and those outcomes include life imprisonment or even the death penalty. Though they are highly useful, metaphors should not bear more weight on a jury's decision than the evidence of a case. Alerting everyday civilians to the four syntactic formulas that contain sticky metaphors identified in this study ("cold blooded" followed by "killer" or "murderer," "BOIL" followed by a temporal phrase, "BURN" followed by a prepositional phrase, and a name or personal pronoun followed by "EXPLODE") may lessen the influence of these metaphors on court case verdicts because regular civilians are those who may be called to become jurors. And as more linguists' attentions are drawn to this area of inquiry, further research may be conducted using corpora of actual court proceedings—if those transcriptions can be obtained. Unmasking these sticky metaphors is important in achieving higher levels of fairness and impartiality in courtrooms today.

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Appendix

Query	Regular expression
"Cold blooded"	N/A
"Coldly"	N/A
"Cool off"	N/A
"Chill RUN down POSS spine"	"chill (\brun\b|\bruns\b|\bran\b|\brunning\b) down (\bhis\b|\bher\b|\bmy\b|\byour\b) spine"
"KILL in cold blood"	"(\bkill\b|\bkills\b|\bkilled\b|\bkilling\b) in cold blood"
"Cool and collected"	N/A
"Goosebumps"	N/A
"FREEZE up"	"(\bfreeze\b|\bfreezes\b|\bfroze\b|\bfreezing\b) up"
"Frozen with fear"	N/A
"Heat of passion"	N/A
"BURN hot"	"(\bburn\b|\bburns\b|\bburned\b|\bburning\b) hot"
"BOIL"	"\bboil\b|\bboils\b|\bboiled\b|\bboiling\b"
"BURN"	"\bburn\b|\bburns\b|\bburned\b|\bburning\b"
"Hot blooded"	N/A
"SEE red"	"(\bsee\b|\bsees\b|\bsaw\b|\bseeing\b) red"
"EXPLODE"	"\bexplode\b|\bexplodes\b|\bexploded\b|\bexploding\b"
"BURN up with anger"	"(\bburn\b|\bburns\b|\bburned\b|\bburning\b) up with anger"
"BURST"	"\bburst\b|\bbursts\b|\bbursting\b"