# A Spectral Taxonomy of Cross-domain-ness in Visual Metaphor Identification Procedure (VISMIP): A Case Study of Three Philippine Editorial Cartoons on Disinformation

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#### **Abstract**

Using VISMIP to analyze three editorial cartoons on disinformation, this paper finds that cross-domain-ness between target and source domains does not occur binarily but does, in fact, occur in varying degrees vis-à-vis the presence of an overlapping hypernym and their relative sematic relationship with it. This study therefore proposes a spectral approach to cross-domain-ness, four types of which are identified: (1) absolute cross-domain-ness, where the target and source are totally distinct; (2) superior cross-domain-ness, where the target is semantically closer to the overlapping hypernym than the source; (3) inferior cross-domain-ness, where the target is semantically farther to the overlapping hypernym than the source; and (4) cohyponymic cross-domain-ness, where the target and source fall under the same hypernym and semantic layer. Ultimately, this paper also explores how VISMIP shows potential in furthering studies on Philippine media, the dearth of which proves appealing to future Filipino language scholars and metaphor analysts alike.

**Keywords:** Visual metaphor identification, Conceptual Metaphor Theory, cross-domain-ness, multimodality, editorial cartoons

#### Introduction

Ever since the publication of George Lakoff and Mark Johnson's monograph *Metaphors We Live By*, scholars have viewed and studied metaphors as systems upon which humans perceive and think about the world.\* In the words of Lakoff and Johnson, "our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (1980, p. 3). So, it does not seem out of the ordinary to use conceptual metaphors in everyday life. The concept of 'love', for instance, is viewed in terms of the concept of 'journey', yielding such expressions like

Look how far we've come.

We're at a crossroads.

We'll just have to go our separate ways.

We can't turn back now.

I don't think this relationship is going anywhere.

Where are we?

We're stuck.

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It's been a *long, bumpy road*. This relationship is a *dead-end street*. (Kövecses, 2002, pp. 5-6, original emphasis)

On the other hand, the abstract concept of 'argument' is typically viewed in terms of the more concrete concept of 'war'. This perspective is evident in common expressions such as

Your claims are *indefensible*.

He attacked every weak point in my argument.
His criticisms were right on target.
I demolished his argument.
I've never won an argument with him.
You disagree? Okay, shoot!
If you use that strategy, he'll wipe you out.
He shot down all of my arguments.
(Lakoff and Johnson, 1980, p. 4, original emphasis).

The concepts of 'love' and 'argument', therefore, are conceptually metaphorized as LOVE IS A JOURNEY and ARGUMENT IS WAR, respectively. It is in this regard that LOVE is viewed in terms of its developmental aspect and its characteristic of having a 'destination' or *telos*; all of which are typical in a JOURNEY. Meanwhile, ARGUMENTS are viewed in terms of the combative aspect of WAR. In this view, people 'clash' arguments against another's and strengthen arguments like defensive structures.

In recent years, however, Lakoff and Johnson's *Conceptual Metaphor Theory* has been scrutinized for invariably using *verbal* expressions to demonstrate the prevalence of conceptual metaphors (Forceville, 2008, p. 462). It is in this regard that a multimodal perspective towards conceptual metaphors has gained popularity in the literature and among metaphorists alike. Current metaphor studies, for instance, have focused primarily on visual and verbo-pictorial modes of communication such as advertisements (Forceville, 1996, 2008, 2009; Urios-Aparisi, 2009), editorial cartoons (Yus, 2009; Teng, 2009; Schilperoord and Maes, 2009; El Refaie, 2009), film (Rohdin, 2009; Eggertsson and Forceville, 2009), and music (Zbikowski, 2009) as opposed to the more common verbal or linguistic modes of communication.

Despite the present multimodal turn in metaphor studies, there still proves to be a dearth of local literature focusing on editorial cartoons, let alone any Philippine visual media, as a potentially metaphor-rich genre. Comprehensive studies on Philippine editorial cartoons like those of Yu-Rivera's *Patterns of Continuity and Change* (2005) and *A Satire of Two Nations* (2009), for example, employ a semiotic perspective, focusing on the signifiers and the signified present in editorial cartoons made during the pre- and post-War eras (2005, p. xiv). In a similar vein, Halili's *Iconography of the New Empire* (2006) uses editorial cartoons made during the American Colonial Period to analyze how images of race and gender are utilized to justify the American colonization of the Philippines (p. xii).

Going back, aside from metaphor theorization, a number of procedures for metaphor identification and interpretation have also been proposed in recent years. As mentioned before, Lakoff and Johnson's (1980) two-domain approach takes two conceptual domains, i.e., the target and the source, and identifies their conflation as a metaphoric phenomenon. This approach is then built on by the Pragglejaz Group (2007) who proposed the Method for Identifying Metaphorically

Used Words in Discourse or MIP, which was further amended and expanded by Steen et al.'s MIPVU in 2010. All of these methods consider verbal expressions as data.

Meanwhile, we also have the semantic-pragmatic approach of Forceville in multimodal metaphor identification. While this proves to be one of the earliest procedures in multimodal metaphor identification, it unfortunately fails to account for the possibility of non-metaphoric representation in images. In other words, Forceville's procedure already assumes an image to be metaphoric instead of *potentially* metaphoric. To address this limitation, Šorm and Steen (2018) proposed VISMIP, or the visual metaphor identification procedure, which enables scholars to analyze any form of static media as a *potentially* metaphoric text. Compared to Forceville's (1996, 2008) approach, VISMIP is more methodologically sound and reliable. As such, Šorm and Steen's (2018) VISMIP will be critically evaluated in this paper.

In any case, by employing a multimodal metaphoric perspective on Philippine editorial cartoons, this paper calls into attention the potential wealth of information that may be gotten through a multimodal metaphoric analysis of local media.

### **Research Questions**

This paper aims to evaluate the notion and nature of cross-domain-ness as argued by Šorm and Steen (2018) in their proposed procedure of visual metaphor identification through a case study analysis of three Philippine editorial cartoons on disinformation. The current study, therefore, seeks to answer the following research questions:

- 1. What possible theoretical issues arise from the binary approach to cross-domain-ness between target and source in Šorm and Steen's Visual Metaphor Identification Procedure (VISMIP)?
- 2. What taxonomical solutions may be used to account for and thereby redress the possibility of shared hypernyms between target and source?

# **Objectives**

The main objective of this study is to critically assess the idea of cross-domain-ness as argued by Šorm and Steen (2018) in their Visual Metaphor Identification Procedure (VISMIP). This entails determining the factors that mark two units of comparison in an editorial cartoon as metaphoric and juxtaposing these with the case study findings which arise from the application of VISMIP to three Philippine editorial cartoons. As such, this study also aims to identify and categorize the ways in which cross-domain-ness occur between two units of comparison in editorial cartoons.

#### **Review of Related Literature**

Lakoff and Johnson's seminal monograph Metaphors We Live By (1980) argued that "the essence of metaphor is understanding and experiencing one kind of thing in terms of another" (p.5, original emphasis). In the ARGUMENT IS WAR metaphor presented in the first section, therefore, the concept of ARGUMENT "is partially structured, understood, performed, and talked about in terms of WAR" (1980, p. 5). Aside from this, the metaphor in question also highlights the combative aspect of argumentation that is similarly found in wars. On the other hand, the non-lethal aspect of argumentation which is not typical of wars is consequently hidden. Nevertheless, what came to be scrutinized recently in Lakoff and Johnson's two-domain approach to metaphors is their focusing on purely verbal expressions as data even though they have claimed that "metaphor is primarily a matter of thought and action and only derivatively a matter of language" (1980, p. 153,

emphasis mine). It follows, then, that in order for Conceptual Metaphor Theory (CMT) to be viable, it should consider verbal as well as non-verbal texts as data (Forceville, 2008, p. 462).

In this light, Forceville's *Pictorial Metaphor in Advertising* (1996) may be regarded as a reaction to the need to address the theoretical gap in Lakoff and Johnson's CMT. By using images as data for metaphor analysis, Forceville demonstrated that metaphors, too, abound and are employed in non-verbal texts, implying that the way we visualize concepts is also metaphorical in nature (1996, p. 210). However, even though Forceville was able to systematically identify, categorize, and theorize conceptual metaphors as they are manifested pictorially in advertisements, a key methodological point that has come to be scrutinized is his usage of a simple metaphor identification procedure: "Which are the two terms of the pictorial metaphor? Which is the target, and which is the source? and which is/are the features that is/are mapped from source to target?" (2009, p. 24). It may be noticed that Forceville's method of metaphor identification and analysis leaves out important factors such as context and composition. It may also be pointed out that for specific genres like editorial cartoons, some factors such as the critical stance of the editorial cartoon and the cartoonist's political affiliation should be considered (Schilperoord and Maes, 2009, pp. 216, 231). Other scholars such as El Refaie, for instance, puts an emphasis on social and textual context, arguing that multimodal metaphor analysis is "closely linked to an individual's education, background, and experience of the genre in which the metaphor occurs" (2009, p. 191). All of these things, however, are not accounted for in Forceville's Pictorial Metaphor in Advertising.

As such, to address the need for a reliable methodology of identifying metaphors in multimodal texts, Šorm and Steen (2018) proposed the Visual Metaphor Identification Procedure (VISMIP). This three-tier approach considers expression, conceptualization, and communication in identifying multimodal metaphors (Bolognesi, van den Heerik, and van den Berg, 2018, p. 98). In this case, expression focuses on the referential and abstract meaning of an image as these are manifested in its material production. Conceptualization, meanwhile, focuses on how certain conceptual features are mapped from its source domain to its target domain. This also tackles the cross-domain-ness of such mappings or comparisons. Lastly, communication focuses on the communicative goal of the image. The major difference between Forceville's method and VISMIP is that the latter does not assume an image is already metaphoric. It contains parameters which determine whether an image should be marked as metaphoric or not. In any case, what proves helpful in using VISMIP as a methodological tool for multimodal metaphor analysis is its systematicity and comprehensiveness. It disambiguates, for instance, the referential and the abstract meaning of an image, determines the visual incongruity in the image, and considers the global topic of the image (Šorm and Steen, 2018, p. 61). More so, it uses a lexical database such as WordNet to determine the categoricity of two units of comparison (Šorm and Steen, 2018, pp. 71-72). In any case, VISMIP proves useful for multimodal metaphor analysis because it considers not just the verbo-pictorial cues present in the image but also the context of its production.

Despite the comprehensive nature of VISMIP as a metaphor identification procedure, its methodology has proved without faults. Quite recently, for example, Negro, Šorm, and Steen (2018) evaluated the first step of VISMIP alone, i.e., *understanding the meaning of the image*, concluding with the following suggestions for establishing the referential and the more general and abstract meaning of the image more clearly:

1. All visual units within an image or visual framework should be integrated within a single sentence because it allows for the establishing of meaningful connections between each unit.

- 2. All visual units which help to identify an element of incongruity must be included in the linguistic description of the image.
- 3. All visual units in the linguistic description of the image must be accompanied with relevant attributes. (2018, pp. 124-126)

Essentially though, Negro, Šorm, and Steen's findings (2018) develop on the initial procedures of VISMIP, particularly on how the first step is to be carried out more reliably and soundly. Because these parameters were not included in the original VISMIP, it stands to reason that the developments in multimodal metaphor studies, specifically how genre affects how a text is produced and reproduced, supplements, and enriches VISMIP as a methodological tool. This suggests then that even though VISMIP is considered to be one of the most recent and comprehensive metaphor identification procedures in the literature, it still needs to be scrutinized with data from different genres, countries, and cultures. It is in this light that the present study takes its *raison d'être*, focusing on critically assessing the binary approach to cross-domain-ness in VISMIP.

### Methodology

Šorm and Steen's (2018) VISMIP is applied as follows. First, a preliminary observation of the image is conducted, taking note of all elements, visual or otherwise. This is done to establish a general understanding of the meaning of the image. Meaning here refers to the combination of the referential, i.e., denotative, meaning of the image, the symbolic, i.e., connotative, meaning, the point, and the topic of the image. In order to distill the meaning of the image, Šorm and Steen (2018) divide the first step into four substeps: (1a) describe the referential meaning of the image, i.e., the participants, settings, object; (1b) determine whether there are any visual or verbal clues such as captions and tags that point to a more general and abstract meaning in the image; (1c) construct the point of the image by determining the communicative purpose of the image; and (1d) formulate from step 1c the topic of the image.

For the second step of VISMIP, all descriptive phrases which have been derived from step 1a are structured and unitized. This entails using Tam and Leung's *Structured Annotation* strategy, which is a helpful tool for image analysis because it labels pertinent visual units according to the following: Agent, Setting, Object, Action, and Recipient (Šorm and Steen, 2018, p. 66).

Moving forward, the third step entails finding all possible incongruous units in the image. *Incongruity* here refers to a "discrepancy in the manifestation or property of an object or thing" (Šorm and Steen, 2018, p. 69). This is divided into two substeps which focus on finding (1) the topic-incongruous units and (2) the property-incongruous units. The former refers to units which are incongruous with the topic derived from step 1d, whereas the latter refers to units which have incongruous properties.

The next step involves testing whether the incongruous units from steps 3a and 3b may be integrated to the topical framework by way of comparison. This entails thinking of replacing units that would be congruous with the topic *and* coherent with the findings of step 1a in lieu of the topic-incongruous units (step 4a). Aside from that, this step also involves thinking of another set of replacing units which would typically own the incongruous properties derived from step 3b *and* be coherent with the referential meaning of the image.

For the fifth step of VISMIP, the comparisons made from the previous step are determined whether these are cross-domain. This is done through WordNet, a lexical database containing the semantic relationships of concepts to other similar (or dissimilar) concepts. If two concepts have

an overlapping hypernym, i.e., a superordinate concept, within three levels of semantic categories, then they are *not* considered as cross-domain. However, if two concepts do not have an overlapping hypernym, then they are tagged as cross-domain. It is important to note in passing that the three-level semantic categoricity criterion is impermanent. As Šorm and Steen puts it, "the number of levels may have to be adjusted with increasing experience in use" (2018, p. 73). We shall go back to this issue in the following sections.

Moving forward, the sixth step of VISMIP involves testing whether the comparisons considered thus far form an *indirect discourse* about the global topic of the image in question which was formulated under step 1d.

Lastly, the seventh step of VISMIP involves evaluating the findings in steps 4, 5, and 6. If the results are proven to be positive, then the image and its visual units are marked for metaphor.

A summary of the instructions of VISMIP can be found below in Table 1:

#### Table 1

Instructions of Šorm and Steen's (2018) Visual Metaphor Identification Procedure (VISMIP)

- 1. Look at the entire image, including visual and verbal elements, to establish a general understanding of the meaning.
  - a. Describe in just a few simple phrases the referential meaning of the image, i.e., what/who is being depicted here, what he is doing, where he is doing it, and so on. If the referential meaning is ambiguous and allows more than one interpretation, then give alternative descriptions.
  - b. Test whether there are any clues that tell you that more general and abstract meaning should be attached to what is described under step 1a. For example, if the exemplary image described under 1a is accompanied by the caption [X], we have a clue that the more abstract concept [X] should be attached to the referential meaning.
  - c. Reconstruct the point underlying the image.
  - d. Derive from step 1c the topic of the point, i.e., that about which the point is stated.
- 2. Structure the descriptive phrase(s) under step 1a.
- 3. Find incongruous visual units.
  - a. Decide for each unit under step 2 whether it is incongruous with the topic as formulated under step 1d ('topic-incongruous').
  - b. Decide for each topic-congruous unit under step 2 whether it shows properties that are incongruous with the properties that are typically true of that unit ('property-incongruous').
- 4. Test whether the incongruous units are to be integrated within the overall topical framework by some means of some form of comparison.
  - a. For each incongruous unit under 3a, determine which replacing unit would be congruous with the topic AND would be coherent with the referential meaning of the image.
  - b. For each incongruous unit under 3b, determine which replacing unit would typically own the incongruous properties AND would be coherent with the referential meaning of the image.
- 5. Test whether the comparison(s) is/are cross-domain.

- 6. Test whether the comparison(s) can be seen as some form of indirect discourse about the topic as formulated under step 1d.
- 7. If the findings of tests 4, 5, and 6 are positive, then a visual unit should be marked for metaphor.

Source: Adapted from Šorm, E. & Steen, G. J. (2018) VISMIP: Towards a method for visual metaphor identification. *Visual Metaphor: Structure and Process*, 18, p. 82.

#### **Data Collection**

Three editorial cartoons from two widely circulated national broadsheet newspapers are considered in this study. The first editorial cartoon was taken from the *Philippine Star* (Philstar) entitled "Dangerous Disinformation" by Rene Aranda (August 07, 2021). The last two were taken from the *Philippine Daily Inquirer* (PDI). These are "The Perils of Disinformation" by Albert Rodriguez (February 17, 2022) and "Vital, Vigilant Journalism" by Gilbert Daroy (September 28, 2020). Prior written permission to reproduce these editorial cartoons was requested from the Philippine Daily Inquirer. However, only the former was allowed to be reproduced in this paper. To view the latter, readers are encouraged to go to this link: <a href="https://opinion.inquirer.net/133976/vital-vigilant-journalism">https://opinion.inquirer.net/133976/vital-vigilant-journalism</a>.

### **Discussion and Analysis**

Case Study 1: "Dangerous Disinformation"

Step 1: Understanding the Meaning of the Image

**Analysis 1a.** The referential description of the editorial cartoon in Figure 1 is as follows: A man is reading a newspaper while a hand throws a bomb at him.



Figure 1. "Dangerous Disinformation" by Rene Aranda

**Analysis 1b.** The editorial cartoon is accompanied by an article written by The Philippine Star editorial board entitled "Dangerous Disinformation" (see Figure 2). Both the cartoon and the editorial article were published on August 07, 2021 at the height of the COVID-19 pandemic in the Philippines. The article talks about how in some areas of the country health centers had to stop giving out vaccinations because people were coming in hordes and breaking quarantine protocols.

According to the Department of Health (DOH) and the National Bureau of Investigation (NBI), the sudden surge of people going to vaccination centers was due to numerous social media posts saying that there was enough supply of COVID-19 vaccine for anyone who goes to their local health center (*The Philippine Star*, "Dangerous Disinformation"). Aside from this, these social media posts also spread the idea that people can just go to their barangay health centers without appointments or considering the venue capacity of the vaccination center.



Figure 2. Physical Context of "Dangerous Disinformation"

In light of this information, we can now derive the more general and abstract meaning of the image as follows: First, the hand in combination with the verbal tag 'fake news fabricators' is likely to represent fake news fabricators themselves. Second, given the focus of the article is on fake news and its dangers, and the fact that 'fake news fabricators' imply a 'fabricated' thing, the bomb is likely to represent fake news. Third, the man reading the newspaper in combination with the content of the editorial article is likely to represent informed people.

Analysis 1c. The following analysis is done to determine the standpoint of the cartoon. Under our preliminary investigation under step 1b, we argued that the hand is likely to represent fake news fabricators, the bomb to fake news, and the man reading a newspaper to informed people. Meanwhile, according to our description derived from step 1a, the hand throws a bomb at a man who is reading. If we assume, however, that the communicative purpose of the cartoon is to inform the reader about the dangers of disinformation as the editorial article suggests, then the point of the cartoon should be something like this: 'You should be aware of how dangerous disinformation is to other people'.

Analysis 1d. Having formulated the standpoint of the cartoon under step 1c, we can now derive the topic of the cartoon as 'disinformation and its effects'.

#### **Step 2: Unitizing the Image Description**

The description of the editorial cartoon can be unitized as follows: *A man is reading a newspaper while a hand throws a bomb at him*. [Agent(man) Action(read) Object(newspaper) Agent(hand) Action(throw) Object(bomb) Recipient(him)]

#### **Step 3: Finding Incongruity**

Analysis 3a. The topic of the editorial cartoon in question is 'disinformation and its effects'. All of the units are congruous with this topic except for Action(throw) and Object(bomb). We shall therefore underline it in our structural description: A man is reading a newspaper while a hand throws a bomb at him. [Agent(man) Action(read) Object(newspaper) Agent(hand) Action(throw) Object(bomb) Recipient(him)]

**Analysis 3b.** All of the topic-congruous units have no incongruous properties. Because of this, we shall only focus on the topic-incongruous units identified in the previous step.

#### **Step 4: Testing the Need for Comparison**

Analysis 4a. In order to integrate the incongruous units within the global topic of 'disinformation and its effects', we need to find replacing units which would be coherent *and* continuous with the aforementioned topic. For the first incongruous unit, for example, we may replace it with 'spread', while the second may be replaced with 'disinformation'. This yields the following updated structural description: *A man is reading a newspaper while a hand throws a bomb at him*. [Agent(man) Action(read) Object(newspaper) Agent(hand) Action(throw = spread) Object(bomb = disinformation) Recipient(him)]

**Analysis 4b.** There are no units for analysis under step 4b, since all topic-congruous units have no incongruous properties.

### **Step 5: Testing Cross-domain-ness**

Only two pairs of comparisons need to be tested through WordNet under this step:

Table 2

Cross-domain-ness of 4a Comparisons

Step	Set	Unit	WordNet Entry	Hypernym(s)
4a	A	'throw'	S: (v) throw (propel through the air) "throw a frisbee" o direct troponym / full troponym direct hypermym / inherited hypermym / sister term • S: (v) propel, impel (cause to move forward with force) "Steam propels this ship" • S: (v) move, displace (cause to move or shift into a new position or place, both in a concrete and in an abstract sense) "Move those boxes into the corner, please", "I'm moving my money to another bank", "The director moved more responsibilities onto his new assistant"	'propel>move'
		'spread'	S: (v) circulate, circularize, circularise, distribute, disseminate, propagate, broadcast, spread, diffuse, disperse, pass around (cause to become widely known) "spread information," circulate a rumor"; "broadcast the news"  • verb.group  • direct troponym / full troponym  • direct troponym / inherited hypernym / sister term  • S: (v) publicize, publicise, air, bare (make public) "She aired her opinions on welfare"  • S: (v) tell (let something be known) "Tell them that you will be late"  • S: (v) inform (impart knowledge of some fact, state of affairs, or event to)" informed him of his rights"	'publicize>tell> inform'
	В	'bomb'	S: (n) bomb (an explosive device fused to explode under specific conditions)  o direct hyponym / full hyponym  direct hyponym / inherited hypernym / sister term  • S: (n) explosive device (device that bursts with sudden violence from internal energy)  • S: (n) device (an instrumentality invented for a particular purpose)  "the device is small enough to wear on your wrist"; "a device intended to conserve water"  • S: (n) instrumentality, instrumentation (an artifact (or system of artifacts) that is instrumental in accomplishing some end)	'explosive device> device> instrumentality'

'disinformation'	S; (n) disinformation (misinformation that is deliberately disseminated in order to influence or confuse rivals (foreign enemies or business competitors etc.))	'misinformation>
	<ul> <li><u>direct hypernym / inherited hypernym / sister term</u></li> <li><u>S: (n) misinformation</u> (information that is incorrect)</li> </ul>	information>
	<ul> <li>S: (n) information, info (a message received and understood)</li> <li>S: (n) message, content, subject matter, substance (what a communication that is about something is about)</li> </ul>	message'

Source: WordNet, throw [v.] sense #1, spread [v.] sense #5; bomb [n.] sense #1, disinformation [n.].

Because the comparisons above have no shared hypernym between them, these are considered cross-domain and may be analyzed further in steps 6 and 7.

#### **Step 6: Testing Indirectness**

The topic of the editorial cartoon is 'disinformation and its effects'. In light of this information, the comparison between 'throw' and 'spread' can be seen as indirect discourse about the topic in that spreading fake news is akin to throwing a bomb. This indirect discourse highlights the dangers in fabricating and then spreading disinformation. It suggests that even though disinformation is hardly a concrete entity in the crudest of sense, it can still be used as a tool to cause and inflict damage upon anyone or anything. Similarly, the comparison between 'bomb' and 'disinformation' can also be seen as indirect discourse about the topic. In this comparison, it is suggested that we should see disinformation in terms of its destructive potential, much like the indirect discourse suggested by the throw-spread comparison.

#### **Step 7: Evaluating Possible Metaphoricity**

Having analyzed Figure 1, we can now confirm that all of the comparisons considered thus far should be marked for metaphor. The visual metaphors are as follows:

- 1. SPREADING DISINFORMATION IS THROWING A BOMB
- 2. DISINFORMATON IS A BOMB

#### Case Study 2: "Vital, Vigilant Journalism"

(https://opinion.inquirer.net/133976/vital-vigilant-journalism)

#### **Step 1: Understanding the Meaning of the Image**

**Analysis 1a.** The referential description of the editorial cartoon above can be summarized as follows: A man with a spray gun shines a flashlight at a huge insect with papers who is running away.

Analysis 1b. The more general and abstract meaning of the image may be summarized as follows: First, the huge insect on the left-hand side of the cartoon in combination with the text 'fake news' is likely to represent the concept of fake news itself. Meanwhile, the papers the huge insect is holding are likely to be specific pieces of disinformation or fake news. Third, the person holding a flashlight and a spray gun is likely to represent a journalist, i.e., someone who exposes false pieces of information and corrects these with verifiable ones. The flashlight is likely to represent verifiable information, whereas the spray gun is likely to represent measures that would put an end to disinformation. Overall, the more general and abstract meaning of the image is supported by the editorial article "Vital, Vigilant Journalism," which accompanied the publication of the editorial cartoon.

In essence, the article talked about how journalists have become not just mere reporters of current events, but also journalists amidst the rising cases of disinformation or *fake news* 

particularly on social media. According to the editorial article, journalists are the ones to "shine the light of truth against those who have the motive and the means to suppress it" (*The Philippine Daily Inquirer*, "Vital, Vigilant Journalism").

Analysis 1c. The following analysis is done in order to ascertain the standpoint of the cartoon: Under our preliminary analysis under step 1b, we argued that the huge insect is likely to represent fake news, the papers it is holding to pieces of fake news, the man to journalist, the flashlight to verifiable information, and the spray gun to measures against disinformation. Meanwhile, according to our description under step 1a, the huge insect is the one running away from the man shining a flashlight at it (and not the other way around). If we assume, then, that the communicative purpose of the editorial cartoon is to inform the audience about the importance of journalism, then the point of the cartoon should be something like this: 'You should be aware of how journalism fact-checks information to expose fake news or disinformation and to spread the truth.

**Analysis 1d.** Having derived the point in step 1c, the topic of the cartoon can be summarized as follows: 'journalism'.

### **Step 2: Unitizing Image Description**

The description of the editorial cartoon can be unitized as follows: A man with a spray gun shines a flashlight at an insect with papers who is running away. [Agent(man) Object(spray gun) Action(shine) Object(flashlight) Recipient(insect) Object(paper) Action(run away)].

#### **Step 3: Finding Incongruity**

Analysis 3a. The topic we derived from step 1d is 'journalism'. All of the units are therefore incongruous. We will underline the incongruous units in our description as follows: <u>A man with a spray gun shines a flashlight at an insect with papers who is running away</u>. [Agent(man) Object(spray gun) Action(shine) Object(flashlight) Recipient(insect) Object(paper) Action(run away)].

**Analysis 3b**. Since all units are already topic-incongruous, no units are left to undergo analysis under step 3b, the step for determining any sort of incongruity in the properties of visual units.

### **Step 4: Testing the Need for Comparison**

Analysis 4a. In order to integrate the incongruous units within the global topic, 'journalism', we need to compare them with the following units:

Table 3
Step 4 Analysis of "Vital, Vigilant Journalism" Editorial Cartoon

#	Incongruous Unit	Replacing Unit	
1	Agent(man)	'journalist'	
2	Object(spray gun)	'solution against disinformation'	
3	Action(shine)	'fact-check'	
4	Object(flashlight)	'truth'	
5	Recipient(insect)	'disinformation'	
6	Object(paper)	'pieces of disinformation'	
7	Action(run away)	'spread disinformation'	

This would yield the following description: A man with a spray gun shines a flashlight at a huge insect with papers who is running away. [Agent(man = journalist) Object(spray gun = solution against disinformation) Action(shine = fact-check) Object(flashlight = truth) Recipient(insect = disinformation) Object(paper = piece of disinformation) Action(run away = spread disinformation)]. Such a description would be coherent and continuous with the global topic 'journalism'.

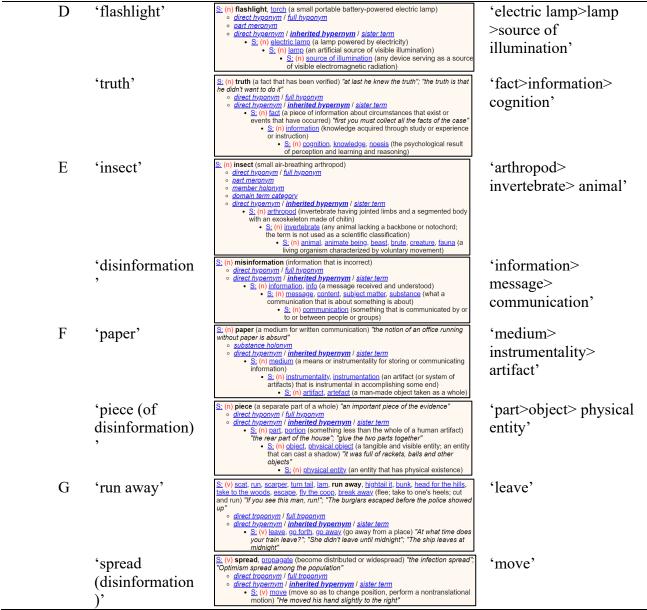
### **Step 5: Testing Cross-domain-ness**

Seven comparisons should be tested using WordNet (refer to Table 4). A close inspection of all seven comparisons reveals that these are cross-domain.

Table 4

Cross-domain-ness of 4a Comparisons

Step	Set	Unit	WordNet Entry	Hypernym(s)
4a	A	'man'	S. (n) man, adult male (an adult person who is male (as opposed to a woman)) "there were two women and six men on the bus"  o direct hyponym! full hyponym  part meronym  has instance  direct hypenym! inherited hypenym! sister tem  S. (n) male, male person (a person who belongs to the sex that cannot have babies)  S. (n) person, individual, someone, somebody, mortal, soul (a human being) "there was too much for one person to do"  S. (n) organism, being (a living thing that has (or can develop) the ability to act or function independently)	'male>person> organism'
		'journalist'	S. (n) journalist (a writer for newspapers and magazines)  o direct hyponym / full hyponym  has instance  direct hypenym / inherited hypernym / sister term  • S. (n) writer, author (writes (books or stories or articles or the like) professionally (for pay))  • S. (n) communicator (a person who communicates with others)  • S. (n) person, individual, someone, somebody, mortal, soul (a human being) "there was too much for one person to do"	'writer>communicator >person'
	В	'spray gun'	S. (n) spray gun (an applicator resembling a gun for applying liquid substances (as paint) in the form of a spray)  o direct hypermyn   inherited hypermyn   sister term  S. (n) applicator, applier (a device for applying a substance)  S. (n) device (an instrumentality invented for a particular purpose)  "the device is small enough to wear on your wrist", "a device intended to conserve water"  S. (n) instrumentality, instrumentation (an artifact (or system of artifacts) that is instrumental in accomplishing some end)	'applicator>device> instrumentality'
		'solution (against disinformation)	S. (n) solution, answer, result, resolution, solvent (a statement that solves a problem or explains how to solve the problem) "they were trying to find a peaceful solution", "the answers were in the back of the book", "he computed the result to four decimal places"  o direct hyponym / full hyponym direct hypenym / inherited hypernym / sister term  S. (n) statement (a message that is stated or declared; a communication (oral or written) setting forth particulars or facts etc) "according to his statement he was in London on that day"  S. (n) message, content, subject matter, substance (what a communication that is about something is about)  S. (n) communication (something that is communicated by or to or between people or grups)	'statement>message >communication'
	C	'shine'	S: (v) reflect, shine (be bright by reflecting or casting light) "Drive carefullythe wet road reflects"  o direct troponym   full troponym odirect hypenym   inherited hypenym   sister term S: (v) emit, give out, give off (give off, send forth, or discharge; as of light, heat, or radiation, vapor, etc.) "The ozone layer blocks some harmful rays which the sun emits"	'emit'
		'fact-check'	S: (v) check, check up on, look into, check out, suss out, check over, go over, check into (examine so as to determine accuracy, quality, or condition) "check the brakes"; "Check out the engine" of direct troponym! full troponym verb group officed troponym I inherited hypernym! sister term officed thypernym I inherited hypernym! sister term S: (v) analyze, analyse, study, examine, canvass (consider in detail and subject to an analysis in order to discover essential features or meaning) "analyze a sonnet by Shakespeare"; "analyze the evidence in a criminal trial"; "analyze your real motives"	'check>analyze'



Source: *WordNet*, man [n.] sense #1, journalist [n.] sense #1; spray gun [n.] sense #1, solution [n.] sense #2; shine [v.] sense #1, check [v.] sense #1; flashlight [n.], truth [n.] sense #1; insect [n.] sense #1, disinformation [n.]; paper [n.] sense #4, piece [n.] sense #1; run away [v.] sense #1, spread [v.] sense #2.

### **Step 6: Testing Indirectness**

According to the analysis under step 1d, the topic of the cartoon is 'journalism'. As such, the comparison between the man and a journalist can be seen as indirect discourse about the topic of the image: these people are the ones who verify whether information is true or not. Journalists, then, should be viewed in terms of their perception and acuity. Second, the comparison between the spray gun and the solution to disinformation can also be seen as indirect discourse about the topic of the image, i.e., the spray gun can be used as a tool to kill off any unwanted pest such as the insect. In other words, the solution to disinformation should be viewed in terms of its definitiveness and effectivity in eradicating fake news. This then leads to the comparison between the huge insect and fake news, which can also be seen as indirect discourse about the topic in that

fake news are as prevalent today in all forms of media as insects are prevalent in a tropical country such as the Philippines. Aside from that, fake news should also be seen in terms of its ability to cause trouble not just in the lives of individuals but also in society at large. Moving forward, the comparison, too, between shining (a light on something) and fact-checking can also be seen as indirect discourse about the topic: fact-checking should be viewed in terms of its capacity to expose the falsity of some piece of information which was regarded as true but is actually false. This comparison also suggests that disinformation happens in the dark, i.e., it happens under our noses or out of sight, hence its pervasive nature. In the same vein, the comparison between the flashlight and the truth can likewise be seen as indirect discourse about the topic because flashlights help us see in the dark, i.e., the illuminating ability of flashlights is akin to the revelatory nature of the truth. Furthermore, the comparison between the papers and pieces of disinformation can also be seen as indirect discourse about the topic because disinformation is oftentimes made bit by bit, i.e., fragments of verifiable information are twisted and decontextualized. Simply speaking, pieces of disinformation should be viewed in terms of the ability of papers to be written over. Lastly, the comparison between running away and spreading disinformation can also be seen as indirect discourse about the topic: spreading disinformation should be seen in terms of its evasion from and deliberate avoidance of truth.

#### **Step 7: Evaluating Possible Metaphoricity**

Having analyzed the editorial cartoon "Vital, Vigilant Journalism" and confirming that such findings yield positive results, we can now confirm that the incongruous units in the editorial cartoon should all be marked for metaphor. The visual metaphors are as follows:

- 1. SPREADING (DISINFORMATION) IS RUNNING AWAY (FROM THE TRUTH).
- 2. FACT-CHECKING IS SHINING A LIGHT (AT FAKE NEWS)
- 3. SOLUTION TO DISINFORMATION IS A SPRAY GUN
- 4. PIECES OF DISINFORMATION ARE PAPERS
- 5. DISINFORMATION IS AN INSECT
- 6. THE TRUTH IS A FLASHLIGHT
- 7. JOURNALIST IS A MAN

#### Case Study 3: "The Perils of Disinformation"

### Step 1: Understanding the Meaning of the Image

**Analysis 1a.** The referential description of the editorial cartoon in Figure 3 is as follows: A monster emerges from a cellphone while a man on top of a pile of gadgets threatens it with a rolled-up newspaper.

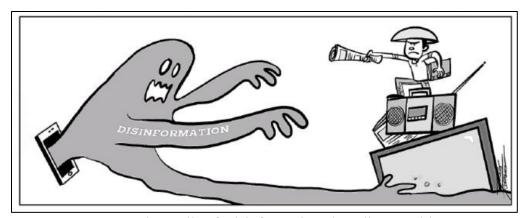


Figure 3. "The Perils of Disinformation" by Albert Rodriguez

Analysis 1b. To derive the more general and abstract meaning of the image, we must first take into consideration the editorial article which accompanied the editorial cartoon (see Figure 4). Published on February 17, 2022, the editorial "The Perils of Disinformation" disambiguated the concept of misinformation from disinformation, marking the latter as being more menacing and socially disruptive than the former. In essence, the editorial called into attention the need for all Filipinos to be aware of how social media has played a significant role on the prevalence of disinformation and how we should safeguard all forms of media from the spread of disinformation.



Figure 4. The Physical Context of "The Perils of Disinformation" by Albert Rodriguez

In light of this editorial article, we can derive the more general and abstract meaning of the cartoon as follows: First, the monster in combination with the verbal cue "disinformation" is likely to represent the concept of disinformation itself. Second, the phone from which the monster emerges is likely to represent social media because the editorial article points out its role on the spread of disinformation. Third, similar to the analysis of the phone, the pile of gadgets is likely to represent the media in general, which comes in part by the anchoring of the editorial cartoon to

the accompanying editorial article. Lastly, the man standing on top of the pile of gadgets and wearing a *salakot* hat is likely to represent the Filipino people, i.e., the group of people whom the editorial article calls out.

Analysis 1c. In order to derive the critical standpoint of the cartoon, the following analysis is done: Under our preliminary analysis under step 1b, we claimed that the monster is likely to represent disinformation, the phone to social media, the pile of gadgets to media, and the man to Filipinos. Meanwhile, according to our description under step 1a, the monster emerges from the phone and is subsequently threatened by the man. If we assume, however, that the communicative purpose of the cartoon is to inform the audience about the relationship between social media and the rising cases of disinformation, then the point of the cartoon should be something like this: 'You should be aware that social media plays a significant role in the spread of disinformation'.

**Analysis 1d.** Having formulated the step under 1c, the topic of the cartoon can be summarized as 'social media and disinformation'.

### **Step 2: Unitizing Image Description**

The description of the editorial cartoon in Figure 3 can be unitized as follows: A monster emerges from a cellphone while a man on top of a pile of gadgets threatens it with a rolled-up newspaper. [Agent(monster) Action(emerge) Object(cellphone) Agent(man) Setting(on top of a pile of gadgets) Action(threaten) Recipient(it) Object(newspaper| rolled-up)]

### **Step 3: Finding Incongruity**

Analysis 3a. Under step 1d, we derived the topic as 'social media and disinformation'. We will therefore underline the incongruous units in our unitized description as follows: <u>A monster emerges</u> from a cellphone while a man on top of a pile of gadgets <u>threatens</u> <u>it</u> with a rolled-up newspaper. [Agent(monster) Action(emerge) Object(cellphone) Agent(man) Setting(on top of a pile of gadgets) Action(threaten) Recipient(it) Object(newspaper| rolled-up)].

The underlined units are deemed incongruous because they do not typically fall under the global topic of social media and disinformation. On the other hand, the remaining units Object(cellphone) and Object(newspaper| rolled-up), for example, are congruous with the topic at hand.

**Analysis 3b.** Turning our focus now on the congruous units, it may be observed that some topic-congruous units have incongruous properties:

- 1. Object(cellphone) PRODUCING A MONSTER(atypical function)
- 2. Agent(man) THREATENING A MONSTER(atypical situation property)
- 3. Object(newspaper rolled up) USED TO THREATEN(atypical function)
- 4. Setting(on top of a pile of gadgets) USED AS A PLATFORM TO THREATEN A MONSTER(atypical function)

### **Step 4: Testing the Need for Comparison**

Analysis 4a. In order to integrate the incongruous units within the global topic, 'social media and disinformation', we need to compare the incongruous units we have derived from step 3a with appropriate replacing units. To begin, Agent(monster) may be replaced with 'disinformation'. After all, the visual element in question is anchored with the verbal text "disinformation". The

same goes with Recipient(it) because it merely functions as a substitution for Agent(monster). In other words, Recipient(it) and Agent(monster) are treated equally and are replaced with 'disinformation' altogether. Moving forward, 'emerge' may be replaced with 'produce'. Lastly, 'threaten' may be replaced with 'deal (with)'. These comparisons produce the following description: A monster emerges from a cellphone while a man on top of a pile of gadgets threatens it with a rolled-up newspaper. [Agent(monster = disinformation) Action(emerge = produce) Object(cellphone) Agent(man) Setting(on top of a pile of gadgets) Action(threaten = deal with) Recipient(it = disinformation) Object(newspaper| rolled-up)].

These replacing units, when applied to the unitized description, would be coherent *and* continuous with the topic: 'social media and disinformation'.

Analysis 4b. Similarly, we have to find replacing units which do have the incongruous properties listed under step 3b: First, the 'man' in Agent(man) may be replaced with 'warrior' because warriors are typically associated with the situation of *threatening* a monster. Second, the 'newspaper' in the unit Object(newspaper| rolled-up) may be replaced with 'weapon' because newspapers are not typically used to threaten monsters. Weapons, on the other hand, are more appropriate in the given context. Third, the unit Setting(on top of a pile of gadgets) may be replaced with 'battlement' because it is typically used as a *platform* or location on which to threaten a monster or engage with it. Lastly, 'cellphone' may be replaced with 'evil dimension' because the way in which the monster emerges out of the phone suggests another world *inside* of the cellphone. In light of these comparisons, we now have an updated structural description which would be coherent with the meaning of the image: *A monster emerges from a cellphone while a man on top of a pile of gadgets threatens it with a rolled-up newspaper*. [Agent(monster) Action(emerge) Object(cellphone = evil dimension) Agent(man = warrior) Setting(on top of a pile of gadgets = battlement) Action(threaten) Recipient(it) Object(newspaper| rolled-up = weapon)].

### **Step 5: Testing Cross-domain-ness**

Using WordNet, seven comparisons of structural units and replacing units need to be conducted to determine whether such comparisons are cross-domain or not. To better illustrate these comparisons, refer to Table 5 below.

Table 5

Cross-domain-ness of 4a and 4b Comparisons

Step	Set	Unit	WordNet Entry	Hypernym(s)
4a	A	'monster'	S: (n) monster (an imaginary creature usually having various human and animal parts)  odirect hyponym / full hyponym  direct hypernym / inherited hypernym / sister.term  • S: (n) imaginary being, imaginary creature (a creature of the imagination; a person that exists only in legends or myths or fiction)  • S: (n) imagination, imaginativeness, vision (the formation of a mental image of something that is not perceived as real and is not present to the senses) "popular imagination created a world of demons", "imagination reveals what the world could be"  • S: (n) creativeness, creative hinking (the ability to	'imaginary being> imagination> creativity'
		'disinformation'	create)  S: (n) disinformation (misinformation that is deliberately disseminated in order to influence or confuse rivals (foreign enemies or business competitors etc.))  o direct hypernym I inherited hypernym I sister term  • S: (n) misinformation (information that is incorrect)  • S: (n) information, info (a message received and understood)  • S: (n) message, content, subject matter, substance (what a communication that is about something is about)	'misinformation> information> message'

	В	'emerge'	S: (v) emerge (come out into view, as from concealment) "Suddenly, the proprietor emerged from his office"  o direct troponym / full troponym	'appear'
		4 1 2	o <u>direct hypernym / inherited hypernym / sister term</u> S. (v) <u>appear</u> (come into sight or view) "He suddenly appeared at the wedding"; "A new star appeared on the horizon"  S. (v) <u>produce, bring about, give rise</u> (cause to happen, occur or exist) "This	. 1 ,
		'produce'	procedure produces a curious effect", "The new law gave rise to many complaints", "These chemicals produce a noxious vapor", "the new President must bring about a change in the health care system"  odirect troponym / full troponym  direct hypernym / inherited hypernym / sister term  • Si (v) make, create (make or cause to be or to become) "make a mess in one's office"; "create a furor"	'make'
	С	'threaten'	S: (v) endanger, jeopardize, jeopardise, menace, threaten, imperii, perii (pose a threat to; present a danger to) "The pollution is endangering the crops"  o direct hypenym / inherited hypenym / sister term S: (v) exist, be (have an existence, be extant) "Is there a God?" o denviationally related form sentence frame	'exist'
		'deal with'	S. (v) manage, deal, care, handle (be in charge of, act on, or dispose of) "I can deal with this crew of workers"; "This blender can't handle nuts"; "She managed her parents' affairs after they got too old" direct troponym   full troponym of the troponym of troponym of the troponym of	'control'
4b	A	'cellphone'	S; (n) cellular telephone, cellular phone, cell, mobile phone (a hand-held mobile radiotelephone for use in an area divided into small sections, each with its own short-range transmitter/receiver)  odirect hypemym / inherited hypemym / sister term  • S; (n) radiotelephone, radiophone, wireless telephone (a telephone that communicates by radio waves rather than along cables)  • S; (n) telephone, phone, telephone set (electronic equipment that converts sound into electrical signals that can be transmitted over distances and then converts received signals back into sounds) "I talked to him on the telephone"  • S; (n) electronic equipment (equipment that involves the controlled conduction of electrons (especially in a gas or	'radiotelephone> telephone> electronic equipment'
		'evil dimension'	S. (n) dimension (the magnitude of something in a particular direction (especially length or width or height)) o direct hyponym   full hyponym direct hyponym   inherited hypernym   sister term S. (n) magnitude (the property of relative size or extent (whether large or small)) "they tried to predict the magnitude of the explosion", "about the magnitude of a small pea" S. (n) property (a basic or essential attribute shared by all members of a class) "a study of the physical properties of atomic particles" S. (n) attribute (an abstraction belonging to or characteristic of an entity)	'dimension> magnitude> property'
	В	'man'	S: (n) man, adult male (an adult person who is male (as opposed to a woman)) "there were two women and six men on the bus"  o direct hyponym / full hyponym  part meronym has instance direct hypenym / inherited hypernym / sister term  S: (n) male, male person (a person who belongs to the sex that cannot have babies) S: (n) person, individual, someone, somebody, mortal, soul (a human being) "there was too much for one person to do"  S: (n) organism, being (a living thing that has (or can develop) the ability to act or function independently)	'male>person> organism'
		'warrior'	S: (n) warrior (someone engaged in or experienced in warfare)  o direct hyponym / full hyponym  has instance  direct hyponym / inherited hyponym / sister term  S: (n) person, individual, someone, somebody, mortal, soul (a human being) "there was too much for one person to do"  S: (n) organism, being (a living thing that has (or can develop) the ability to act or function independently)  S: (n) living thing, animate thing (a living (or once living) entity)	'person>organism> living thing'
	С	'pile (of gadgets)'	S. (n) pile, heap, mound, agglomerate, cumulation, cumulus (a collection of objects laid on top of each other) of irect hyponym   full hyponym direct hypernym   fullerited hypernym   sister term S. (n) collection, aggregation, accumulation, assemblage (several things grouped together or considered as a whole) S. (n) group, grouping (any number of entities (members) considered as a unit)	'pile>collection> group'
		'battlement'	S. (n) battlement, crenelation, crenellation (a rampart built around the top of a castle with regular gaps for firing arrows or guns)  o part meronym odirect hypernym / inherited hypernym / sister term  • S. (n) rampart, bulwark, wall (an embankment built around a space for defensive purposes) "they stormed the ramparts of the city"; "they blew the trumpet and the walls came tumbling down"  • S. (n) embankment (a long artificial mound of stone or earth; built to hold back water or to support a road or as protection)  • S. (n) mound, hill (structure consisting of an artificial heap or bank usually of earth or stones) "they built small mounds to hilde behind"	'rampart> embankment> mound'



Source: *WordNet*, monster [n.] sense #1, disinformation [n.]; emerge [v.] sense #1, produce [v.] sense #3; threaten [v.] sense #1, deal with [v.] sense #7; cellphone [n.], dimension [n.] sense #1; man [n.] sense #1, warrior [n.]; pile [n.] sense #1, battlement [n.]; newspaper [n.] sense #1, weapon [n.] sense #1.

#### **Step 6: Testing Indirectness**

The topic of the cartoon is 'social media and disinformation'. In light of this information, the seven comparisons we have considered thus far can be seen as indirect discourse about the aforementioned topic of the image. First, the comparison between a monster and disinformation is indirect discourse about the topic in that it suggests that we should see disinformation as capable of wreaking havoc and destroying lives, attributes typically linked with monsters and notions of monstrosity.

Second, the comparison between 'emerge' and 'produce' can be seen as indirect discourse about the topic because it suggests that we should see the emergence of disinformation as a sort of production, involving a product, i.e., disinformation, and producers, i.e., social media users.

Third, the comparison between the act of threatening and dealing with (something) can also be seen as indirect discourse about the topic. It suggests that we should deal with disinformation in a particularly serious way akin to facing an unknown monster that may cause damage to the lives of people online and in the real world.

Fourth, the comparison, too, between a cellphone and an evil dimension can also be seen as indirect discourse about the topic in that we should see cellphones as a world in which disinformation is being constantly produced and circulated. Moreover, even though the separation between the online dimension and the real dimension, i.e., reality, is emphasized, the fact that the monster, i.e., disinformation, is coming into the real world suggests that actions done in the online dimension has real-life consequences.

Fifth, the comparison between a man and a warrior can be seen as indirect discourse about the topic in that we should see those who stand up against disinformation as brave, courageous, and fearless. They are like warriors who engage in battle against those who produce and circulate disinformation in the online world.

Sixth, the comparison between the pile of gadgets and a battlement can be seen as indirect discourse about the topic because we should see the former as the ground on which a warrior gets his footing. The different forms of media which constitute the pile suggest the various locations on which the battle between disinformation and the truth takes place. Consequently, these forms of media should also be seen as something more than just a location for such a battle, i.e., it is also something worth protecting to ensure the safety of the warrior or the everyday media user.

Seventh, and last, the comparison between the newspaper and a weapon can be seen as indirect discourse about the topic. This is informed in part by the way in which the newspaper is rolled-up and used to threaten the monster. Because of this, we should see media not only as

something worth protecting but also as something useful to fight disinformation with. Media, then, is seen as a powerful weapon against disinformation even though disinformation usually takes place *in* media.

### **Step 7: Evaluating Possible Metaphoricity**

All relevant visual metaphors in the editorial cartoon above are as follows:

- 1. MAN (AGAINST DISINFORMATION) IS A WARRIOR
- 2. PILE OF GADGETS IS A BATTLEMENT
- 3. CELLPHONE IS AN EVIL DIMENSION
- 4. DISINFORMATION IS A MONSTER
- 5. MEDIA IS A WEAPON

Having analyzed Figure 3 and confirming that such findings yield positive results, we can justifiably say that all comparisons considered thus far should be marked for metaphor.

### **Spectral Taxonomy of Cross-domain-ness**

Applying VISMIP to the three local editorial cartoons yields the aforementioned visual metaphors. However, upon closer inspection of the analyses under step 5, i.e., testing for cross-domain-ness, a number of key issues arises. These problems are informed in part by the seemingly binary and relative nature of cross-domain-ness as was originally purported by Šorm and Steen (2018):

[The] analysts should study a number of layers, say three, under a word to see whether any hypernyms overlap. If they do not, then the domains to which the concepts belong can be considered to be distinct. If they do, then the domains are considered to be similar. (p.73)

Given their definition of VISMIP step 5 above, Šorm and Steen essentially leaves the following questions unanswered: (1) Does cross-domain-ness necessarily imply *absolute* non-overlapping of hypernyms? (2) How many layers of semantic relations is appropriate for any comparison between target domain and source domain? and (3) What does it mean for the comparison between two units if these do share a common hypernym, but one is semantically superior, inferior, or equal to the other? In any case, the questions just presented call into attention the need to further nuance the definition of cross-domain-ness, i.e., to explicate more on what it truly means for two units of comparison to be considered as cross-domain. This paper offers the following taxonomy of cross-domain-ness, drawing particularly from the idea that cross-domainness does not occur absolutely or in binaries but rather in varying degrees.

#### **Absolute Cross-domain-ness**

For the first classification of cross-domain-ness, the comparison between the incongruous unit and the replacing unit is absolute, hence its name *absolute cross-domain-ness* (ACD). This means that the units in question do *not* have any overlapping hypernyms on any number of semantic layers. An example of absolute cross-domain-ness in the editorial cartoon for "Vital, Vigilant Journalism" (link: www.opinion.inquirer.net/133976/vital-vigilant-journalism) is the comparison between 'spread' and 'run away'. Although both units only have one inherited hypernym each, these nevertheless differ from one another and are *not* cohyponymic or semantically related (see Table 6 below).

Table 6

WordNet Entry of 'spread' and 'run away'

	Unit	WordNet Entry	Com. Hyp.
Target (A)	'spread'	S. (v) spread, propagate (become distributed or widespread) "the infection spread", "Optimism spread among the population" of direct troponym / full troponym of direct hypenym / inherited hypenym / sister term S. (v) move (move so as to change position, perform a nontranslational motion) "He moved his hand slightly to the right"	N/A
Source (B)	'run away'	S; (v) scat. run. scarper, turn tail, lam, run away, hightail it, bunk, head for the hills, take to the woods, escape, fly the coop, break away (flee; take to one's heels; cut and run) "If you see this man, run!", "The burglars escaped before the police showed up"  of irect troponym / full troponym of irect hypernym / inherited hypernym / sister term S; (v) leave, go forth, go away (go away from a place) "At what time does your train leave?", "She didn't leave until midnight", "The ship leaves at midnight".	

Source: WordNet, run away [v.] sense #1, spread [v.] sense #2.; "Com. Hyp." means "common hypernym".

In the visual metaphor SPREADING (DISINFORMATION) IS RUNNING AWAY (FROM THE TRUTH), then, the target (A), i.e., SPREADING (DISINFORMATION), is absolutely cross-domain in relation to the source (B), i.e., RUNNING AWAY (FROM THE TRUTH). The absolute cross-domain-ness between target domain and source domain can be illustrated as follows:

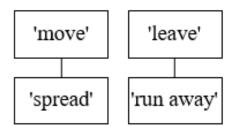


Figure 5. Sample of Absolute Cross-domain-ness

Other examples of ACD include the metaphors FACT-CHECKING IS SHINING A LIGHT (AT FAKE NEWS), the hypernyms of which are 'emit' for the source and 'check>analyze' for the target domain, and SPREADING DISINFORMATION IS THROWING A BOMB, the hypernyms of which are 'propel>move' for the source and 'publicize>tell>inform' for the target domain. Conceptually, absolute cross-domain-ness may be schematized as such:

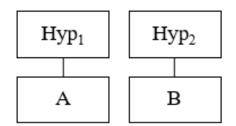


Figure 6. Schema of Absolute Cross-domain-ness

#### **Superior Cross-domain-ness**

The second classification of cross-domain-ness is characterized by the incongruous unit being semantically superior to the replacing unit in the comparison. This then implies that both units of comparison have an overlapping hypernym. It must be noted in passing that the operative word "superior" here does not denote any form of value judgment on the concepts, it simply means that the target domain in question is closer to the common hypernym than the source domain. The visual metaphor SOLUTION TO DISINFORMATION IS A SPRAY GUN in the cartoon for "Vital, Vigilant Journalism" (link: www.opinion.inquirer.net/133976/vital-vigilant-journalism), for example, demonstrates superior cross-domain-ness (SCD) in that the target, i.e., SOLUTION TO DISINFORMATION, is semantically superior to the source, i.e., SPRAY GUN. When we look at the full WordNet entries of 'solution' and 'spray gun', we can see how, in actuality, both units share an overlapping hypernym: 'entity' (see Table 7 below).

Table 7

WordNet Entry of 'solution (to disinformation)' and 'spray gun'

	Unit	WordNet Entry	Com. Hyp.
Target (A)	'solution (to disinformation)'	\$\overline{S}\$: (n) solution, answer, result, resolution, solveni (a statement that solves a problem or explains how to solve the problem) They were trying to find a peaceful solution; "the answers were in the back of the book", "he computed the result to four decimal places" of irrect hypermym / full hypermym / sister term  • direct hypermym / full hypermym / sister term • \$\overline{S}\$: (n) statement (a message that is stated or declared; a communication (oral or written) setting forth particulars or facts etc) "according to his statement he was in London on that day"  • \$\overline{S}\$: (n) message, content, subject matter, substance (what a communication that is about something is about)  • \$\overline{S}\$: (n) communication (something that is communicated by or to or between people or groups)  • \$\overline{S}\$: (n) abstraction, abstract entity (a general concept formed by extracting common features from specific examples)  • \$\overline{S}\$: (n) antity (that which is perceived or known or inferred to have its own distinct existence (living or nonliving)	'entity'
Source (B)	'spray gun'	S: (n) spray gun (an applicator resembling a gun for applying liquid substances (as paint) in the form of a spray)  o direct hypearmy i inherited hypernym! sister term  • S: (n) applicator, applier (a device for applying a substance)  • S: (n) device (an instrumentality invented for a particular purpose)  *The device is small enough to wear on your wrist", "a device intended to conserve water  • S: (n) instrumentality, instrumentation (an artifact (or system of artifacts) that is instrumental in accomplishing some end)  • S: (n) instrumentality, instrumental on accomplishing some end)  • S: (n) strumentality (an assemblage of parts that is regarded as a single entity) "how big is that part compared to the whole?", "the team is a unit"  • S: (n) whole, unit (an assemblage of parts that is regarded as a single entity) "how big is that part compared to the whole?", "the team is a unit"  • S: (n) object, physical object (a tongible and wisible entity, an entity that can cast a shadow) "it was full of rackets, balls and other objects"  • S: (n) junysical entity, (an entity that has physical existence)  • S: (n) annity (that which is perceived or known or inferred to have its own distinct existence (living or nonliving))	

Source: WordNet, solution [n.] sense #2, spray gun [n.]; "Com. Hyp." means "Common Hypernym".

Simply speaking, the target domain, 'solution', is much closer to the overlapping hypernym, 'entity', than the source domain, 'spray gun'. To better illustrate the semantic superiority of 'solution' to 'spray gun', the cross-domain-ness of SOLUTION TO DISINFORMATION IS A SPRAY GUN is illustrated as follows:

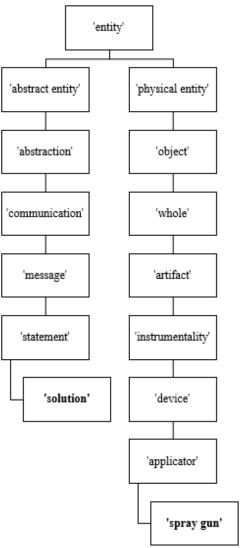


Figure 7. Sample of Superior Cross-domain-ness

It may be noted that contrary to Šorm and Steen's suggestion to only use three semantic layers for analysis (p. 73), this taxonomy considers that shared hypernyms may be found as close to or farther than any arbitrary semantic layer one chooses as a point of reference. It is important, therefore, to expand each semantic tree to be able to see whether two concepts do indeed have a shared hypernym or not. As such, to answer the second questions posed at the start of this section, i.e., "How many layers of semantic relations is appropriate for any comparison between target domain and source domain?", it is imperative to analyze *all* layers of semanticity to determine whether there exists a shared hypernym between two conceptual domains. Alternatively, one may just analyze each semantic layer until a shared hypernym is found. This implies that only the semantic layers that are *dominated* by the shared hypernym in question will solely be used in one's analysis.

Superior cross-domain-ness, then, may be schematized as follows:

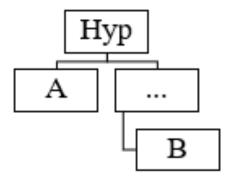


Figure 8. Schema for Superior Cross-domain-ness

#### **Inferior Cross-domain-ness**

In contrast with SCD, inferior cross-domain-ness (ICD) is characterized by the semantic inferiority of the replacing unit, i.e., the target, to the incongruous unit, i.e., the source. The only similarity between these units is that similar to SCD, these have an overlapping hypernym on a particular semantic layer. And drawing from the same justification for the use of the operative term "superior", "inferior" is used here to refer to the lower position of the replacing unit vis-à-vis the incongruous unit. Moreover, "inferior" also denotes that the replacing unit is *farther* from the overlapping hypernym than the incongruous unit. Using the editorial cartoon from the first case study, we can observe that the metaphor JOURNALIST IS A MAN is a good example of ICD. In this case, 'journalist', i.e., the target domain, is semantically more distant than 'man', i.e., the source domain, from their shared hypernym 'person', essentially foregrounding the idea that journalists are socio-cognitively seen as men (see Figure 9). In other words, the JOURNALIST IS A MAN metaphor espouses a non-gender-neutral ideology where the sex is typicalized in the profession it takes its cue from: journalists.

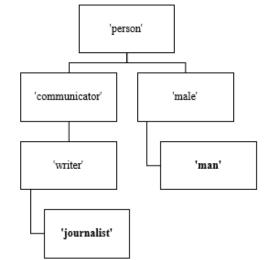


Figure 9. Sample of Inferior Cross-domain-ness

Inferior cross-domain-ness is thus schematized as follows:

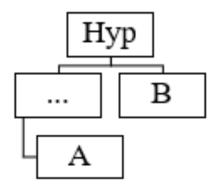


Figure 10. Schema for Inferior Cross-domain-ness

### **Cohyponymic Cross-domain-ness**

The fourth and last classification of cross-domain-ness is characterized by the equal distance of both the target domain and the source domain from their shared hypernym. This cohyponymic cross-domain-ness (CCD) implies that the units in question are cohyponyms or semantic sisters, i.e., they are on the same level of semanticity in relation to their shared hypernym. Of all the editorial cartoons presented above, not one has a multimodal metaphor classified as CCD. An example of CCD, however, can be found in Figure 11 with the multimodal metaphor QUEER PERSON IS AN ATHLETE.



Figure 11. "#ResistTogether: Overcoming Hurdles" by Dennis Gasgonia

In this multimodal metaphor, the target domain, i.e., QUEER PERSON, is cohyponyms with the source domain, i.e., ATHLETE, and these conceptual domains fall under the same immediate hypernym, 'person', on the same layer of semanticity (refer to Table 8 for their WordNet entries).

Table 8

WordNet Entry of 'queer person' and 'athlete'

	Unit	WordNet Entry	Com. Hyp.
Target (A)	'queer (person)'	S. (n) fagot, fagot, fair, nance, pansy, gueen, queer, poof, poove, pouf (offensive term for a homosexual man)  o domain usage  it is in homosexual, homophila, homo, gay (someone who is sexually attracted to persons of the same sex)  • S. (n) person, individual, someone, somebody, mortal, soul (a human being) "there was too much for one person to do"  • S. (n) organism, being (a living thing that has (or can develop) the ability to act or function independently)  • S. (n) living thing, animate thing (a living (or once living) entity)  • S. (n) living thing, animate thing (a living (or once living) entity)  • S. (n) whole, unit (an assemblage of parts that is regarded as a single entity). "The team is a unit"  • S. (n) object, physical object (a tangible and visible entity, an entity that can cast a shadow) "thas full of rackets, balls and other objects"  • S. (n) physical entity (an entity that has physical existence)  • S. (n) physical entity (that which is perceived or known or inferred to have its own distinct existence (living or nonliving))	'person'
Source (B)	'athlete'	S: (n) athlete, jock (a person trained to compete in sports)  o direct hyponym / full hyponym  has instance  direct hypemym / inherited hypernym / sister term  • S: (n) contestant (a person who participates in competitions)  • S: (n) person, individual, someons, somebody, mortal, soul (a human being) "there was too much for one person to do"  • S: (n) organism, being (a living thing that has (or can develop) the ability to act or function independently)  • S: (n) hying thing, animate thing (a living (or once living) entity)  • S: (n) whole, unit (an assemblage of parts that is regarded as a single entity) "how big is that part compared to the whole?"; "the team is a unit"  • S: (n) object, physical object (a tangible and visible entity; an entity that can cast a shadow) "it was full of rackets, balls and other objects"  • S: (n) physical entity (an entity that has physical existence)  • S: (n) physical existence)  • S: (n) onitity (that which is perceived or known or inferred to have its own distinct existence (living or nonliving))	

Source: WordNet, queer [n.] sense #1, athlete [n.]; "Com. Hyp." means "Common Hypernym".

In a similar vein, the Panay News editorial cartoon published on March 25, 2020 (www.panaynews.net/editorial-cartoon-of-the-day-578/) also contains an exemplary sample of CCD. Here, the metaphor MISINFORMATION IS A LIVING ORGANISM comprises of a source domain, 'living organism', and a target domain, 'misinformation', which are cohyponymic from one another vis-à-vis their shared hypernym 'entity'.

Table 9

WordNet Entry of 'misinformation' and 'living organism'

	Unit	WordNet Entry	Com. Hyp.
Target (A)	'misinformation'	S. (n) misinformation (information that is incorrect)  o direct hypogrum! full hypogrum  odirect hypogrum! inherited hypogrum! sister term  object hypogrum! inherited hypogrum! sister term  object hypogrum! inherited hypogrum! sister term  object inherited hypogrum! sister term  object inherited hypogrum! sister term terms that a communication that is about something is about!  object in communication (something that is communicated by or to or between people or groups)  object in abstraction, abstract entity (a general concept formed by extracting common features from specific examples)  object inherited to have its own distinct existence (living or nonliving))	'entity'

```
Source 'living

(B) organism'

S: (n) organism, being (a living thing that has (or can develop) the ability to act or function independently)

o' direct hyponym
o' demain term category
o' domain term category
o' domain term category
o' direct hyponym / sister term
o' direct hyponym / inhing, animate thing (a living (or once living) entity)

• S: (n) lymole, unil (an assemblage of parts that is regarded as a single entity) 'how big is that part compared to the whole?", "the team is a unit"
• S: (n) object, physical object (a tangible and visible entity; an entity that can cast a shadow) "it was full of rackets, balls and other objects"

• S: (n) physical entity (an entity that has physical existence)
• S: (n) physical entity (an entity that has physical existence)
• S: (n) physical entity (an entity that has physical existence)
```

Source: WordNet, misinformation [n.], organism [n.] sense #2; "Com. Hyp." means "Common Hypernym".

Using the metaphors QUEER PERSON IS AN ATHLETE and MISINFORMATON IS A LIVING ORGANISM as examples, we can thus schematize cohyponymic cross-domain-ness as follows:

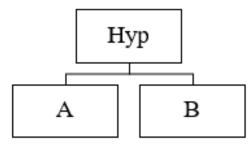


Figure 12. Schema for Cohyponymic Cross-domain-ness

## **Synthesis**

A summary of the spectral taxonomy of metaphoric cross-domain-ness is as follows:

Table 10
Spectral Taxonomy of Metaphoric Cross-domain-ness

#	Degrees of Cross-domain-ness	Notation	Schema	Example
1	Absolute Cross-domain-ness (ACD)	AXB	$ \begin{array}{c c} Hyp_1 & Hyp_2 \\ \hline A & B \end{array} $	'spread' and 'run away'
2	Superior Cross-domain-ness (SCD)	A < B	Hyp A B	'solution' and 'spray gun'
3	Inferior Cross-domain-ness (ICD)	A > B	Hyp B	'pile' and 'battlement'
4	Cohyponymic Cross-domain-ness (CCD)	A = B	Нур В	'misinformation' and 'organism'

It is important to remember that in Šorm and Steen's (2018) VISMIP, the definition of cross-domain-ness vis-à-vis the number of semantic layers between conceptual domains is vague. It is not clear, for example, whether ten or five semantic layers between conceptual domains are enough to constitute a conceptual metaphor. The tone of Šorm and Steen's (2018) discussion on cross-domain-ness, after all, is unsure: "[The] analysts should study a number of layers, say three, under a word to see whether any hypernyms overlap" (p. 73, emphasis added). In other words, there is no prescribed number of semantic layers in accounting for cross-domain-ness in Šorm and Steen's VISMIP. This paper addresses this by demonstrating that cross-domain-ness between conceptual domains can, in fact, be achieved even if there are no semantic layers between two conceptual domains, i.e., they are co-hyponymic. Conceptual metaphors can therefore be produced no matter how far (or close) one domain is to another in conceptual space or whether the target domain is superior (or inferior) to the source domain, thereby reaffirming the importance of the criterion of cross-domain-ness in conceptual metaphor construction alongside embodiment (Lakoff & Johnson, 1980; Kövecses, 2002; Forceville, 1996, 2008).

Having identified, qualified, and categorized the ways in which metaphoric cross-domainness are manifested, we can thus tabulate the source domain and target domain of each of the sample Philippine editorial cartoons as follows:

Table 11
Summary of Visual Metaphors

EC No.	<b>Source Domain</b>	Target Domain	В	A	Com. Hyp.	CD Type
1	'man'	'journalist'	1	2	'person'	ICD
	'spray gun'	'solution (to	7	5	'entity'	SCD
		disinformation)'				
	'shine'	'fact-check'	-	-	N/A	ACD
	'flashlight'	'truth'	9	5	'entity'	SCD
	'insect'	'disinformation'	8	5	'entity'	SCD
	'paper'	'piece (of	4	2	'object'	SCD
		disinformation)'			-	
	'run away'	'spread (fake news)'	-	-	N/A	ACD
2	'monster'	'disinformation'	6	4	'abstraction'	
	'emerge'	'produce (fake news)'	-	-	N/A	ACD
	'threaten'	'deal with (fake	-	-	N/A	ACD
		news)'				
	'cellphone'	'evil dimension'	9	4	'entity'	SCD
	'man'	'warrior'	1	0	'person'	SCD
	'battlement'	'pile (of gadgets)'	8	3	'entity'	SCD
	'newspaper'	'weapon'	3	2	'instrumentality'	SCD
3	'throw'	'spread'	-	-	N/A	ACD
	'bomb'	'disinformation'	7	5	'entity'	SCD

Note: "B" refers to the number of semantic layers above the structural unit before it reaches the hypernym which it shares in common with its corresponding replacing unit; "A" refers to the number of semantic layers above the replacing unit before it reaches the hypernym which it shares in common with its corresponding structural unit; "Com. Hyp." refers to common hypernym; and "CD Type" refers to cross-domain-ness type.

#### Conclusion

All things considered, this paper demonstrates that the notion of "cross-domain-ness" in conceptual metaphor theory and analysis as propounded by Forceville (1996, 2008), Šorm and Steen (2018), and, most importantly, Lakoff and Johnson (1980) is, in fact, much more complex and quantifiable by looking at the semantic relationship between conceptual domains and categories in a lexical database such as WordNet. It concretizes the concept of cross-domain-ness by providing diagrammatic sketches of these semantic relationships and further supports the foundational argument made by Lakoff and Johnson (1980) that conceptual metaphors are produced as a result of the interaction between two concepts in different conceptual domains. By doing so, it enriches the literature on metaphor studies by deepening our knowledge of cross-domain-ness, an important concept both in metaphor theory and analysis, and confirming that metaphor identification procedures such as those proposed by Šorm and Steen (2018) warrant further recalibration to better account for the nuances of the different semantic relationships between conceptual domains.

Having used Šorm and Steen's VISMIP to analyze three Philippine editorial cartoons on disinformation, this paper finds that the binary approach employed in VISMIP falls short in accounting for the number of ways in which the target domain and the source domain may have a shared hypernym and the possible semantic relationship these two domains may have with it visà-vis their semantic layer. This paper therefore proposes a spectral taxonomy of cross-domain-ness to account for the fact that cross-domain-ness between source and target domain does not occur in a binary fashion but rather in varying degrees. In light of this information, four types of metaphoric cross-domain-ness are identified: (1) absolute cross-domain-ness, where the target domain and source domain are totally distinct from one another in that these do not share a common hypernym; (2) superior cross-domain-ness, where the target domain is semantically closer to the overlapping hypernym than the source domain; (3) inferior cross-domain-ness, where the target domain is semantically farther to the overlapping hypernym than the source domain; and (4) cohyponymic cross-domain-ness, where the target domain and source domain fall under the same hypernym and semantic layer.

Equally important, even though this paper only focuses on three local editorial cartoons, it is still able to contribute to the dearth of multimodal metaphor studies based on Filipino-made visual media. It is hoped that, among other things, this paper will be able to encourage other linguists and metaphorists alike to conduct research on multimodal metaphor, particularly in the Philippine context.

#### Recommendations

This paper reveals through an analysis of three local editorial cartoons that cross-domain-ness in visual metaphor identification occurs in varying degrees as opposed to the binary approach in Šorm and Steen's (2018) VISMIP. On this basis, future researchers building off of this paper should incorporate a larger corpus of data into their analysis, diverting from the current case study framework. This entails considering at least ten or so editorial cartoons from a single publication. Alternatively, future researchers may also consider gathering a large number of editorial cartoons from different local publications. In any case, future researchers would benefit from replicating this study with a larger and more heterogenous corpus of data.

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