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Christopher A. Crawford
Indiana University South Bend

Igor Juricevic
Indiana University South Bend

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***Structural and Contextual Frameworks: Distinguishing Literal
from Metaphorical Depictions of Exaggerated Size****

CHRISTOPHER A. CRAWFORD
Indiana University South Bend

IGOR JURICEVIC
Indiana University South Bend

ABSTRACT

In 2016, the authors proposed the Contextual Framework and Structural Framework for understanding pictorial metaphors. These two dichotomous frameworks are especially useful for assessing the apprehension by viewers of pictorial devices that can be used either literally or metaphorically. One such pictorial device is *exaggerated size*—that is, depicting objects as being overly large. This pictorial device can be used metaphorically (e.g., to indicate importance) or literally (e.g., to depict a giant). We analyze three comic book covers from the Silver Age of American comic books using both frameworks to illustrate how observers distinguish metaphoric pictorial devices from literal ones.

KEY WORDS Pictorial Metaphor; Exaggerated Size; Psychology of Art; Cognition; Comics Theory

Metaphor is pervasive, existing contemporarily as an inextricable component of artistic and commercial media. A linguistic metaphor, such as those in textual media, occurs when two different terms (A and B) are shown to be the same (A is B). For example, the linguistic metaphor “John has a heart of stone” uses two different terms (“heart” and “stone”) and shows them to be the same (the heart is stone; Kennedy 1982). Thus, when a linguistic metaphor is created, the proposed equivalence of the separate terms creates a categorical error (e.g., hearts do not belong to the category “stone”). The goal, then, of the individual interpreting the metaphor is to attempt to remedy this categorical error by applying traits from the source term (A) to the target term (B) in order to conceptualize their likeness (Feinstein 1982).

* Correspondence concerning this article should be addressed to Christopher A. Crawford, Department of Psychology, Indiana University South Bend, South Bend, IN 46634-7111; chricraw@iu.edu.

Whereas once it was thought that metaphor was solely a linguistic device, cognitive metaphor theory proposes that metaphor is a function of human cognition (Lakoff and Johnson 1980). Building from that premise, cognitive metaphor theory proposes that human cognition categorizes and understands disparate concepts in regard to their metaphoric similarities of meaning. This proposition provides motivation and validity to inquiries about metaphor in nonlinguistic mediums, such as pictorial art (including fine art, commercial art, photography, etc), as it follows that if metaphor can be nonlinguistic then it can be present in nonlinguistic mediums. This is especially prevalent in our current society, with visual language becoming extensively used in our communications (in social media platforms such as Instagram and Snapchat, for example), and as a result, pictorial metaphors more and more pervade modern life (in road signs, works of art, diagrams in instructions or labels, etc.). As such, an understanding of the mental processes by which they are identified and interpreted has the potential to serve in various domains. Though cognitive metaphor theory has resulted in a surge of research about pictorial metaphor in the past 30 years, with a resultant expansion in the body of extant literature, there is still no consensus on how pictorial metaphors are apprehended by viewers (Cohn 2013; El Refaie 2003). Particularly, there is still little consensus on (1) how a viewer determines if a picture is metaphorical as opposed to literal, and further contention as to (2) how individuals arrive at an interpretation of a given pictorial metaphor.

In an attempt to provide a basis for consensus and to unify competing theories, earlier research from the current authors hybridized extant theories to construct two heuristic frameworks—contextual and structural—which outline how an individual identifies and interprets pictorial metaphors (Crawford and Juricevic 2016). The Contextual Framework proposes that individuals, using top-down, knowledge-driven processing, utilize several layers of external contextual knowledge to identify and arrive at a single interpretation of a pictorial metaphor, while the Structural Framework proposes that viewers, using bottom-up, stimulus-driven processing, identify and build up multiple interpretations for a possible pictorial metaphor via an analysis of structural pictorial elements within the depiction (Table 1). In this way, each of the two frameworks represents a syncretism of similar sensibilities on metaphor in cognitive psychology, and together, they form two diametric arms of a singular theory.

Table 1. Contrasting the Contextual and Structural Frameworks

	Contextual Framework	Structural Framework
Possible Number of Interpretations	singular	multiple
Type of Processing Utilized	top-down	bottom-up

Crawford and Juricevic (2016) utilized these frameworks to investigate the metaphoric and literal usage of exaggerated size (i.e., depictions of a figure as abnormally large) in comic book depictions from multiple eras of American comic books. Exaggerated size was the chosen pictorial device because it can be used both literally and

metaphorically. The domain of comic book depictions was chosen for analysis because there is no broad preference for utilizing this pictorial device to depict primarily literal or primarily metaphoric figures. For that reason, the usage of exaggerated size in comic books provides a unique opportunity to test these frameworks. The authors' past research analyzed one metaphoric comic book cover from the Golden Age of American comic books (c. 1938–c. 1950), one literal cover from the Silver Age (c. 1956–c. 1970), one metaphorical cover from the Bronze Age (c. 1970–c. 1985), and one metaphorical cover from the Modern Age (c. 1985–present). In our previous research, we chose comic book covers as exemplars that articulated the more nuanced ways in which the frameworks arrive at concordant or discrepant interpretations when analyzing the same comic book image. In contrast, it is the goal of the current analysis to illustrate the universality of the frameworks by allowing history (i.e., popular consensus of historical significance) to provide the set of covers. Specifically, we were able to identify three covers that were consistently present in 18 lists, indicating that they are three of the most iconic comic book covers to feature exaggerated size.

TESTING THE FRAMEWORKS WITH COMIC BOOK DEPICTIONS

Analysis Criteria

To test the function of the two frameworks, the present research will look at three of the most iconic and historically important comic book covers that use exaggerated size either metaphorically or literally. For this research, Marvel Comics covers rather than DC Comics covers were chosen because Marvel Comics employed the Marvel method. The Marvel method gave artists much greater freedom in the creation of their images because artists worked from a writer's plot rather than from a full script (Potts 2013:426; Talon 2007).

By limiting our selection to Marvel Comics, we were able to analyze how artists well practiced in visual language communicated literal and metaphorical information, unhindered by the story authors, who might not be as fluent in visual language. These three covers were chosen from the available Marvel covers because they employ the pictorial device of exaggerated size and are widely considered to be among the most iconic cover images of all time, based on aggregated results from 18 separate lists (Table 2). Though this research focuses exclusively on comic book covers for practicality's sake, this is not meant to imply that the Cognitive and Structural Frameworks are useful only in this context or that a given comic book reader would be reliant solely on a cover image in apprehending metaphorical and literal pictorial devices therein. Additionally, the frameworks are presented and articulated separately for the sake of delineation and to highlight the nuanced differences between their functional processes rather than to propose that the frameworks work independently and without the possibility of reciprocal influence.

Table 2. Aggregated List Results

List Title	List Ranking			Source
	<i>Amazing Spider-Man #50</i>	<i>Avengers #57</i>	<i>Fantastic Four #1</i>	
100 Favorite Comic Book Covers—Part I	—	—	45	Thompson (2009)
The Real Top 70 Marvel Covers: The Master List	15	10	43	Harris (2010)
Top 150 Covers of the Silver Age	47	5	21	Krakoia (2011)
Some of the Most Iconic Comic Book Covers Ever	11	—	18	Guff (2015)
60 Greatest Ever Marvel Comic Book Covers	11	7	26	Opie (2014)
The Top 50 Most Memorable Covers of the Marvel Age: #25-1	5	13	2	Cronin (2011)
The Top 20 Coolest Comic Covers	—	18	—	CoverBrowser (N.d.)
10 Most Iconic Comic Book Covers of All Time	3	—	4	Cronin (2012)
The 200 Most Iconic Comic Covers Ever	32	79	8	Listal (2016)
Greatest Comic Book Covers: The Sincerest Form of Flattery	—	—	Yes	Morrison (2004)
The Greatest Superhero Comic Book Covers of All Time	6	36	46	Ranker (N.d.)
The 15 Best Superhero Comicbook Covers	—	—	2	Evry (2016)
50 Comic Books That Explain the Comics Industry Today	—	—	5	Abad-Santos (2015)
The 100 Greatest Silver Age Comic Book Covers of All Time!	2	16	—	Brady (2009)
Find out the 75 Greatest Marvel Comics of All-Time	43	50	14	Morse (2014)
What Is the Best Comic Book Cover of All Time?—Ricardo Melo	1	—	—	Melo (2013)
What Is the Best Comic Book Cover of All Time?—Robert Frost	7	—	—	Frost (2015)
What Is the Best Comic Book Cover of All Time?—Mark Hughes	—	—	5	Hughes (2011)
Marvel Comics: 75 Years of Cover Art	Yes	Yes	Yes	Cowsill and Granov (2014)
The Greatest Comic Book Covers of All Time	4	—	Yes	Frankenhoff and Thompson (2012)
Total	12 (66.7%)	9 (50.0%)	14 (77.8%)	

Following the methodology used in previous research (Crawford and Juricevic 2016), as initially proposed by Forceville (2002:2), this analysis comprises a series of four analytical questions:

1. Is the image metaphorical?
2. Which are the two terms of the metaphor, and how do we know?
3. Which is the metaphor's target domain (the subject of the metaphor); which is the metaphor's source domain (the concept/attributes/features metaphorically applied to the target); and how do we know?
4. Which features can/should be mapped from the source domain onto the target domain, and how is their selection decided upon?

These questions follow a set sequence and cumulatively describe how a pictorial metaphor is apprehended and interpreted; thus, if either framework identifies an image as literal (rather than metaphorical), the analysis stops, as the later questions are pertinent only to the interpretation of a pictorial metaphor.

ANALYSIS #1: *THE AMAZING SPIDER-MAN*, VOLUME 1, NUMBER 50

The first analysis of exaggerated size is for the cover of *The Amazing Spider-Man* Volume 1, Number 50 (Lee, Romita, and Demeo 1967). This cover uses the pictorial device of exaggerated size when depicting Spider-Man in the background, with his back turned to a significantly smaller human figure (Peter Parker).

In this cover by John Romita (available at http://marvel.com/comics/issue/6869/the_amazing_spider-man_1963_50), the figure of Spider-Man is depicted using exaggerated size. The depiction shows a downtrodden Peter Parker walking away from a giant visage of his alter ego, Spider-Man. The two figures have their backs to one another and appear to be moving in opposite directions, with Spider-Man looking back over his shoulder at Peter Parker, and Peter Parker looking down at the ground. The depiction is intended to be metaphorical.

Contextual Framework Analysis

Is the image metaphorical? To begin the analysis, one must first assess if the image is metaphorical. The Contextual Framework is built from the base presumption that all artwork is inherently metaphorical; this image would thus be considered metaphorical (Feinstein 1982). To be understood as a metaphor, however, the image must be *referentially adequate*, such that the presence of the metaphor is cued to the observer (Feinstein 1982). In this cover, the representation of the Spider-Man figure as both particularly salient and incompletely formed (as the figure's hands and legs are omitted

from this depiction) provide adequate visual cues for the apprehension of the present metaphor. In this way, the salience of the figure indicates its importance, and the partial representation of the figure indicates that it is not meant to be interpreted literally.

The Contextual Framework proposes that viewers must understand the various contextual levels in which a pictorial metaphor arises in order for the metaphor to be appreciably understood. As mentioned previously, the context of the cover image may provide sufficient information to cue viewers to the presence of the metaphoric use of exaggerated size in the depiction of Spider-Man. The content of the comic book itself provides a second contextual layer that is further indicative of the metaphoric nature of the cover depiction, as the character of Spider-Man is never depicted therein as being of significantly larger size in comparison to other human figures. As a tertiary level of support, the context of the comic book's content reveals that the human figure on the cover is Peter Parker, the civilian identity of Spider-Man. As Peter Parker is Spider-Man, the presence of both figures on the cover thus violates the standard rules of depiction for the Spider-Man character, as he is not known to be capable of creating copies of himself.

What are the two terms of the metaphor, and how do we know? After determining that the picture is metaphoric in nature, one must defensibly determine the two terms of the metaphor. Via the Contextual Framework, Spider-Man is one term of the metaphor, as his rules of depiction have been violated, and this violation itself represents the other term of the metaphor. Thus, if represented verbally, the metaphor could take either the form "Spider-Man (target) is giant (source)" or "giant (target) is Spider-Man (source)."

What is the metaphor's target domain; which is the metaphor's source domain; and how do we know? Having identified the two terms of the metaphor, one must make certain that the source and target have been correctly identified and must thus determine the direction of the metaphor (i.e., "Spider-Man is giant" or "giant is Spider-Man"). According to the Contextual Framework, one can rely on various levels of context to indicate the metaphor's direction. The contextual level of the inner pages of the comic book itself (i.e., the story context) would indicate that as Spider-Man is the titular character and the protagonist in the comic, it follows that by virtue of his importance, he would be the target of the metaphor. Secondarily, the world context of the developing Spider-Man canon indicates that Spider-Man's giant size is a violation of the standards for his depiction, and as such, it follows that Spider-Man would be the target of the metaphor. As there is no abstract giant character who appears in the comic book or the broader Marvel Comics universe who could have the traits of Spider-Man applied to him, we know (from that contextual knowledge) that Spider-Man is not the source domain for the metaphor. Spider-Man must therefore be the metaphor's target and his exaggerated size (i.e., "giant") must therefore be the source. In this way, the target and source domains are identified by the various contextual levels in which the pictorial metaphor arises.

Which features can/should be mapped from the source domain onto the target domain, and how is their selection decided upon? Now that one has deduced the target and source domains, one must subsequently decide which features can or should be mapped

from the source domain onto the target domain. According to the Contextual Framework, the context provided by the comic book and culture will provide the necessary information. In the world context of American culture, exaggerated size can denote many characteristics, such as strength, power, importance, danger, menace, vigilance, and so on (Schubert, Waldzus, and Giessner 2009; Zanolie et al. 2012). Secondly, at this time in the series, the story context and developing canon make clear to readers that Peter Parker's role as Spider-Man represents a hugely important problem in his life. In this example, both the story and world contextual levels suggest that Spider-Man is important but also has strength and power (and not vigilant-ness, dangerousness, or menace). Thus, in this pictorial metaphor, the features of strength, importance, and power from the source domain are meant to be applied to the target domain of Spider-Man.

Conclusion. In sum, the Contextual Framework leads to an understanding of the cover as a metaphoric depiction of exaggerated size wherein the giant figure of Spider-Man (the target) is seen simultaneously as powerful, strong, and important, as the story and cultural contexts provide the association between these traits and giant size (the source). Importantly, note that the Contextual Framework, because of its reliance on a shared cultural context, came to a single interpretation of the metaphoric image.

Structural Framework Analysis

Is the image metaphorical? Analyzing this image via the Structural Framework similarly begins with the question of whether the image is metaphorical. Note that to answer this question, the Structural Framework cannot rely on the context brought to the image; rather, whether the image is metaphorical or literal is determined by the structural elements of the image. Accordingly, the Structural Framework cannot use the information that Spider-Man is a normal-sized human or that he is depicted beside his alter ego (Peter Parker) to indicate that the image is metaphorical, as that information is not contained in this depiction. Given that Spider-Man is not fully formed in this depiction, as his legs and hands seemingly disappear into the background, it follows that an uninformed viewer would presume this image to be metaphorical, as opposed to literal, via an analysis of the structural components of the figure.

What are the two terms of the metaphor, and how do we know? If the viewer takes the image to be metaphorical, the viewer must then ask, "Which are the two terms of the metaphor, and how do we know?" The Structural Framework suggests that an analysis of the structure of the image would yield an understanding of the metaphor therein; hence, the structure of the image must identify the metaphor's target as well as its source. In this case, the exaggerated size of the Spider-Man figure in the background makes it the most salient component of the cover. Further, there are no other structural violations to cue the presence of other pictorial devices. Taken together, these alert the viewer that the Spider-Man figure contains both the target and source of this metaphorical depiction.

What is the metaphor's target domain; which is the metaphor's source domain; and how do we know? Having identified the two terms of the metaphor, one must make certain that the source and target have been correctly identified and must thus establish the direction of the metaphor. The Structural Framework identifies the figure of Spider-Man as the target of the metaphor, as the structural standards of depiction have been violated (i.e., the figure is incomplete), and utilizes a visual grammar proposed by Feng and O'Halloran (2013) to propose a multiplicity of meanings implied by various structural components of the character's depiction. For this image, according to Feng and O'Halloran's visual grammar, (1) the size of an object reflects that it is important, (2) the elevated location of the object with respect to the viewer reflects that it is powerful, (3) the large distance of the object with respect to the viewer reflects that it is socially distant (i.e., unlike the viewer), and (4) the elevated location of the object with respect to the ground indicates that it is ideal. Because there are no specific visual grammar rules regarding Spider-Man, the Structural Framework indicates that the target of the metaphor is Spider-Man; the source is the exaggerated size, elevated position (from the viewer and from the ground), and large distance from the viewer; and the source domains are respectively importance, power, idealness, and social distance.

Which features can or should be mapped from the source domain onto the target domain, and how is their selection decided upon? The final step in the analysis is to determine which features from the various established source domains should be mapped onto the target domain. The Structural Framework relies on pictorial components to actualize pictorial metaphors, and on the social semiotic visual grammar to define their meaning. No component within the framework proposes that a viewer will apprehend every potential metaphor, nor does a component describe how the interpreter may selectively apprehend and ignore particular pictorial metaphors. Thus, the Structural Framework proposes that any combination of the features of importance, power, social distance, and idealness may be defensibly mapped onto Spider-Man.

Conclusion. In sum, the Structural Framework predicts that the image may be understood as being metaphorical, with various potential permutations of meaning therein. For example, some observers may conclude that Spider-Man is a powerful and ideal individual, while others may conclude that Spider-Man is important and socially distant. Note that this is in stark contrast to the Contextual Framework, which proposed only a single metaphoric interpretation of this image.

ANALYSIS #2: *THE AVENGERS*, VOLUME 1, NUMBER 57 (1968)

The second analysis of exaggerated size is for the cover of the Silver Age comic book *The Avengers*, Volume 1, Number 57 (Thomas et al. 1968). This cover uses the pictorial device of exaggerated size when depicting the Vision in the foreground, towering over several smaller figures (the Avengers) caught in smoke.

In this cover by John Buscema (available at http://marvel.com/comics/issue/7307/avengers_1963_57), the figure of the Vision is depicted using exaggerated size. The Vision is shown to be towering over several members of the Avengers, who appear to be only as tall as the Vision's knees. They seem distressed by the Vision's grandiosity. The depiction is intended to be metaphorical.

Contextual Framework Analysis

Is the image metaphorical? The analysis begins with an assessment of the potentially metaphoric nature of the image. The Contextual Framework holds that all artwork is inherently metaphoric; however, a given artistic work must be referentially adequate, such that the metaphor could be readily apprehended by an uninformed viewer. Although the image could appear ambiguous to an uninformed viewer, the Contextual Framework utilizes the contextual levels of the developing Marvel comic book universe and of the interior comic book pages in its assessment of this cover image. Though the Contextual Framework can utilize information from the developing canon of the Marvel comic book universe, the developing canon would not be relevant in this case, as this comic book marks the Vision's first appearance and thus the entirety of the body of knowledge about the character (Thomas et al. 1968). In the context of the comic book itself, the Vision, though giant on the cover, is never shown to be appreciably taller than any of the other normal-sized characters. Thus, the Contextual Framework correctly concludes that this image is meant to be understood metaphorically.

What are the two terms of the metaphor, and how do we know? Once it has been determined that the image is metaphorical, the terms of the metaphor must be determined. As the character of the Vision is the most salient image on the cover, and the context of the comic book itself reveals that his standards of depiction have been violated, he must be either the source or the target of the metaphor. Accordingly, the size violation must also be either the source or the target of the metaphor. Represented verbally, the form the metaphor would take would be either "the Vision is giant" or "giant is the Vision."

What is the metaphor's target domain; which is the metaphor's source domain; and how do we know? Once the two potential terms of the metaphor have been identified, the direction of the metaphor must be established. One term must be the target, and the other term must be the source. As stated previously, if one were to verbally represent the pictorial metaphor present in the cover, it would take the form of either "the Vision is giant" or "giant is the Vision." As there is no abstract giant character to whom the attributes of the Vision could be applied, the only logical direction for this metaphor to take is for the Vision to be the target and the character's exaggerated (giant) size to be the source.

Which features can/should be mapped from the source domain onto the target domain, and how is their selection decided upon? Once the direction of the metaphor has been determined, the next step is to determine which traits from the source domain (exaggerated size) can and should be applied to the metaphor's target (the Vision). As

mentioned previously, in American culture, exaggerated size can denote a multitude of characteristics, such as strength, power, importance, danger, menace, vigilance, and others. (Schubert et al. 2009; Zanolie et al. 2012). As the character of the Vision is shown on the cover as towering over the Avengers (who are known contextually to be the heroes of the series) while they are in defensive postures (arms up, shielding themselves) or are fleeing, it can be inferred that the Vision's exaggerated size is meant to convey his menace, danger, importance, and power.

Conclusion. In sum, the Contextual Framework leads to an understanding of the cover as a metaphorical depiction of exaggerated size wherein the giant figure of the Vision (the target) is seen simultaneously as menacing, dangerous, important, and powerful, as the cultural context provides the association between these traits and giant size (the source). Importantly, note that the Contextual Framework, because of its reliance on a shared cultural context, once again came to a single interpretation of the metaphoric image.

Structural Framework Analysis

Is the image metaphorical? An analysis of this comic book cover must begin with the question of whether the image itself is metaphorical. As the central figure of the Vision is shown nearly complete (the exception being those parts that are obscured by smoke) and is shown to be interacting with the environment (e.g., he is occluded by the smoke and seems to be affecting the other figures in the scene), the structural components of this image indicate that the image is meant to be interpreted literally. Though incomplete depiction of a giant figure is often a pictorial cue that the image is meant to be interpreted metaphorically (as with Spider-Man in the first analysis), the information in the picture indicates that the Vision is actually a complete figure who is partially occluded by smoke. Further, perspective geometry indicates that the Vision is standing on the same plane as the other figures; thus, even though his feet are obscured by smoke, he is still interacting with the environment and may be interpreted literally.

Conclusion. As the Structural Framework has interpreted this image literally, the analysis stops and the remaining questions for pictorial metaphor analysis are not considered. In sum, the Structural Framework would interpret the comic book cover as depicting a literal gigantic figure. Note that, unlike in the case for the first analyzed metaphoric image, the Structural Framework came to a single, albeit incorrect, interpretation of this metaphoric image.

ANALYSIS #3: *FANTASTIC FOUR*, VOLUME 1, NUMBER 1 (1961)

The final analysis of exaggerated size is for the cover of the Silver Age comic book *Fantastic Four*, Volume 1, Number 1 (Lee et al. 1961). This cover uses the pictorial device of exaggerated size in depicting a giant green creature bursting from the ground and engaging the Fantastic Four in battle.

In this cover by Jack Kirby (available at https://marvel.com/comics/issue/12894/fantastic_four_1961_1), the Fantastic Four are shown fighting an enormous green figure known as Giganto. Giganto is depicted using exaggerated size, large enough to hold the Invisible Girl in a single hand. The depiction is intended to be literal.

Contextual Framework Analysis

Is the image metaphorical? Analysis of this cover image begins with the question of whether the image is metaphorical. The Contextual Framework contends that all artwork is inherently metaphorical, and it relies on pictorial cues to signal the presence of the metaphor to viewers based on their prior understanding of the context around the metaphor. A given pictorial metaphor must therefore be referentially adequate to cue this process and to be apprehended by the viewer; however, this cover image is replete with pictorial cues indicating that the image is meant to be understood literally (e.g., Giganto is grasping the Invisible Girl, while the Thing and Human Torch are shown to be interacting with Giganto either directly or indirectly). As Giganto is continuously depicted to be of the same exaggerated size throughout the comic and the figure is shown both on the cover and throughout the comic to interact with the real world (thus implying that he is a corporeal creature), it can be inferred that this character is a literal giant.

Conclusion. As this image is understood to be literal, the analysis stops and the remaining questions are not considered. In sum, the Contextual Framework has utilized the contextual level of the comic book pages (i.e., world knowledge) to conclude that the use of exaggerated size in depicting Giganto on the cover is meant to be understood literally. Note that the Contextual Framework has proposed a singular interpretation of the image based on the context in which the image has arisen.

Structural Framework Analysis

Is the image metaphorical? The Structural Framework's analysis also begins with the question of whether the character depicted in the cover image is metaphorical or literal. As opposed to the Contextual Framework, the Structural Framework must answer this question based solely upon information contained in this image. The image contains a preponderance of pictorial cues indicating that it is meant to depict a literal giant figure: (1) Giganto interacts with the Invisible Girl, as she struggles to escape his grasp; (2) the Invisible Girl is saying, "How can we stop this creature, Torch?" and thus establishes Giganto's realism verbally; and (3) Giganto occludes elements of the picture and is similarly occluded by pictorial elements, thus implying his corporeal nature and realism. Together, these pictorial elements lead to the conclusion that this image is meant to be understood literally.

Conclusion. Once again, as the framework has arrived at a literal interpretation of the cover image, the analysis ends and the remaining questions pertaining to analysis of

metaphoric images are not considered. In sum, the Structural Framework has arrived at an interpretation of the cover image as being literal. Note that, contrary to metaphoric images, wherein the Structural Framework proposes a multiplicity of potential meanings, this framework has proposed a singular interpretation of the image.

CONCLUSION

On completion of the analyses of these three historically important comic book covers (which happened to all be from the Silver Age of American Comics), all of which use the pictorial device of exaggerated size, using both the Contextual and Structural Frameworks, several important conclusions regarding function have been suggested. Specifically, the analyses have indicated that the Contextual Framework (1) can accurately interpret literal depictions of exaggerated size, (2) can accurately interpret metaphoric usages of exaggerated size, and (3) produces a single shared interpretation for an image. Contrastingly, the Structural Framework (1) can accurately interpret literal uses of exaggerated size; (2) may or may not accurately interpret metaphoric usages of exaggerated size, depending on the realism in the structure of the image; and (3) produces a multiplicity of possible interpretations for metaphoric images. (See Table 3.)

Table 3. Cover Analyses of the Frameworks

Issue	Contextual Framework	Structural Framework
<i>The Amazing Spider-Man</i> , Vol. 1, No. 50	single metaphorical interpretation	multiple metaphorical interpretations
<i>The Avengers</i> , Vol. 1, No. 57	single metaphorical interpretation	single literal interpretation
<i>Fantastic Four</i> , Vol. 1, No. 1	single literal interpretation	single literal interpretation

The results of these analyses yield interesting implications about the frameworks. The Contextual Framework functions when analyzing an image via application of multiple levels of contextual knowledge that exist outside of the analyzed image itself. In this way, this framework utilizes top-down processing to apply this preexistent knowledge in its interpretations. This contextual knowledge may either be world knowledge,—comprising the content of the comic book itself as well as the developing canon in the comic book universe (i.e., a character’s norms of depiction)—or cultural knowledge—comprising cultural associations and connotations of pictorial elements (i.e., large size represents importance). Accordingly, this framework may be illuminative of an artist’s creative method employed in the creation of a pictorial metaphor, as when creating a metaphoric image, an artist may rely on both world knowledge and cultural knowledge to define the parameters whereby a given pictorial metaphor may be referentially adequate so as to be apprehended by an observer.

The Contextual Framework may best represent how comic books are interpreted by informed viewers familiar with the standards of comic book depictions. This is because the contextual world knowledge of a comic book universe dictates the requirements for what makes an image referentially adequate (e.g., the standard size of characters, a character's ability to change size). Thus, only viewers familiar with the standards of depiction of a given comic book series would be able to use the strictures of the Contextual Framework to identify metaphorical depictions. For viewers who are unfamiliar, however, the metaphorical image may be misinterpreted as a literal depiction (such as with the second analysis above).

Similarly, an individual may arrive at erroneous interpretations of pictorial metaphors when utilizing the Contextual Framework to analyze images produced in a culture outside of his or her own. Were an individual to be devoid of the cultural knowledge that the artist relied upon in making an image referentially adequate, this uninformed viewer either would be unaware of the presence of a pictorial metaphor or could perhaps misinterpret a pictorial metaphor by associating the source of the metaphor with something unique to his or her own cultural lexicon (presuming that the cultures differ regarding associative connotations for pictorial elements).

Both of these examples indicate how varying levels of contextual knowledge may affect the interpretation of a pictorial metaphor. The Contextual Framework holds that interpretation is mediated by contextual knowledge. As such, differences in contextual knowledge can be expected to change the feasibility of a given interpretation. This could provide a way of understanding how novices interpret images differently than experts do, as well as how cross-cultural misunderstandings could occur.

In contrast to the Contextual Framework, the Structural Framework builds potential metaphoric meanings from an analysis of the structures of pictorial elements. In this way, both the target and source of the metaphor are found within the image itself, and their relationship is proposed in various permutations via bottom-up processing to yield a multiplicity of potential meanings. As the framework functions in this way, it may identify and interpret metaphors that do not align with the artist's intent, as an uninformed viewer would necessarily lack the basic contextual knowledge defining the parameters by which a depiction is referentially adequate. For an image to be referentially adequate it is, by definition, reliant upon the referencing of knowledge that exists outside of the metaphorical depiction. Thus, the Structural Framework may best represent how an uninformed viewer, who is wholly unreliant upon outside knowledge, attempts to decipher a comic book image. Rather than these frameworks being mutually exclusive ways of interpreting an image, a hierarchy of the frameworks may be implied, whereby an individual's ability to utilize contextual knowledge dictates which framework the individual would utilize. Specifically, the Structural Framework may describe how new viewers attempt to understand metaphor in depiction, while the Contextual Framework may describe how experienced viewers interpret images. Accordingly, the two frameworks are neither incommensurable nor mutually exclusive with respect to either observers or images.

The scientific analysis of metaphor has yielded a preponderance of competing theories, sensibilities, data, and schools of thought (Forceville 2016). The Contextual Framework and the Structural Framework add to this growing body of work by proposing two separate approaches through which metaphor in art can be apprehended and analyzed. Further, by separately focusing on the context and structure of the metaphoric image, and by establishing a pragmatic hierarchy to their use based on the viewer's experience, the two frameworks unify what were previously separate focuses of inquiry (i.e., context and structure).

Note that nothing in the Contextual and Structural Frameworks limits their application to comic book art. Both frameworks have the potential to illustrate how viewers apprehend metaphoric and literal information in *any* image. Future research must focus on utilizing the Contextual and Structural Frameworks in the analysis of pictorial metaphor in other forms of art, such as classical, abstract, commercial, and so on. The universality of these frameworks will thus be further defensible, as the function of these frameworks would be shown to not be dependent upon tropes of depiction within the domain of comic books. Additionally, experimental work would be necessary to determine how the two frameworks interact. For example, when the two frameworks disagree on an interpretation of an image, how does the cognitive system process this disparate information?

Importantly, the work reported here provides an illustration of how the Contextual and Structural Frameworks can be applied to an analysis of literal and metaphorical images. It is hoped that these two frameworks can provide a structure for the further research of our understanding of metaphoric images in general.

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