Balloonics: The Visuals of Balloons in Comics

Charles Forceville, Tony Veale, and Kurt Feyaerts

This is a pre-print version of a chapter in the 2010 book, *The RISE and REASON of Comics and Graphic Literature: Critical Essays on the Form*, Edited by Joyce Goggin & Dan Hassler-Forest.

The tailed balloon is one of the most defining visual conventions of the comics medium. One need only insert a stereotypical balloon-with-tail into an image—whether an advert, a photograph, a film still, or even a piece of high art—to turn that image into a comics panel. In this chapter we will examine the conventions of the balloon in more detail. Our main goal is to present a provisional blueprint of the visual variables governing balloonic information, and thus contribute to comics scholarship. Such a blueprint will be a useful tool in the analysis of comics, allowing for a comparison of styles and the identification of idiosyncrasies. More generally, quantifying variation among balloons sheds light on how visual elements can be meaningful at all. We will also hypothesize that at least some balloon variables display 'natural' processes of representation rather than being governed by arbitrary convention. Finally, the approach adopted here allows us to discuss some instances of how the 'standard' balloon can be adapted in the service of creative play.[1]

The presence of balloons is not a defining element of comics: one can conceive of comics without balloons, while balloons only signify comics when they occur in a linear sequence of images. Nonetheless, the balloon—a visual element of a scene depiction that does not actually correspond to anything visual in the scene—is probably the most characteristic aspect of comics. Eisner (1985: 26) describes speech balloons as a "desperation device" in comics, noting that they are an artificial means of capturing that which does not have visual form – i.e., sound. Eisner (1985) and McCloud (1993) describe the rudimentary form and function of balloons, and suggest how form conventionally encodes function. Eisner notes that balloons can communicate meaning in

[1] Balloonic information acquires its meaning only in combination with iconic (mimetic) visuals, language, and extra-balloonic pictograms, pictorial runes, and panel composition on the page. We will refer to these sources of information only inasmuch as they are necessary for characterizing balloons.]

a number of ways: by the shape of the balloon; by the text contained in the balloon; and by the formal characteristics of the text. The most informative part of a balloon is as a rule the content expressed within: usually a character's utterances or thoughts. Yet balloons also communicate a great deal of ancillary meaning via their shape, color, location, size, and the orientation of their tails or thought bubbles. Moreover, balloons do not always contain wholly verbal or textual information. They may contain pictograms, complex images, stand-alone punctuation marks, or non-mimetic flourishes.[2] Finally, balloons may also convey information via the use of atypical or exotic fonts for the letters, words, or punctuation marks occurring in them.

Our data come from European and American sources that exemplify mainstream comics from these continents. The sources are: (i) *Tintin et les Picaros* [*Tintin and the Picaros*] (Hergé 1976); (ii) *Les Lauriers de César* [*Asterix and the Laurel Wreath*] (Uderzo and Goscinny 1972); (iii) *Le Bandit Manchot* [*The One-Armed Bandit*] (Morris and De Groot 1981); (iv) *New Avengers: Civil War* (vol. 21-25) and *Avengers: Disassembled* (vol. 500-503 and 'Finale'), two trade-paperback collections of Marvel comic book installments by Brian Michael Bendis 2006); and (v) *Pirates of the Caribbean Part 3: At World's End* (Disney/Hoofddorp: Sanoma [Dutch edition] 2007). We believe that a systematic examination of the balloon use in these comics can serve as a basis for identifying variables and formulating tentative generalizations that can subsequently be tested and refined by comparisons with other works. We even consider the development of analytical tools and the demonstration of their applicability of greater import than interpretations of the findings, since our limited and relatively arbitrary selection of works does not allow for sweeping generalizations.

[2] Kennedy (1982) and Forceville (2005) discuss these latter in terms of "pictorial runes." Walker (2000) uses " indicia" while McCloud (1993) prefers "cartoon symbols" (see particularly 127-131).

	Picaros (Tintin)	*César (Asterix)*	*Bandit (Lucky Luke)*	*Avengers (Marvel)*	*Pirates (Disney)*
Number of pages	62	44	44	262	50
Number of panels	755	410	387	1281	280
Number of balloons	1079	563	540	1581	256

Table 1. Number of pages, panels and balloons in the corpus per source

Table 1 demonstrates that the American comics have fewer panels per page than the European comics. This may be partly due to the smaller size of the Marvel comics pages; closer inspection reveals that panel distribution on the page is also freer than the strict grid pattern of the European comics in our data. *Pirates* averages less than one balloon per panel, which could be indicative of this comic's strongly action-oriented content.

Variables in balloonic information

In this section we present quantitative information about visual balloon variables that have the potential to be narratively significant.

Balloon Form: Arguably, the most salient balloon variable is its form. We submit that deviations in balloon form within a single work are, in most cases, significant. Deviant balloon-forms usually convey information about the emotions and states of mind of the persons to which they are tailed. Only occasionally are there variations in balloon form for purely practical purposes, such as leaving room for important visual features such as a character's head.

The popular software application *Comic Life*, developed by PLASQ.com and distributed with most new Apple computers, exploits intuitions about typical comic strip balloons, allowing non-professionals to create documents that have the look and feel of a comic (see Table 2, Column 1). Defining *Comic Life*'s eight subtypes as 'standard' allows us to chart how the balloons in our data relate to this stylized norm, as well as to

assess and compare the idiosyncrasies of each artist's balloon use. For this purpose we add a ninth category ('other') to catalogue deviations from the norm.

Since comics balloons often fail to conform completely to the stylized specimens of *Comic Life*, we performed both a 'strict' and an 'extended' categorization. Balloons are classified as 'strict' only if they are virtually identical with the standard, and as 'extended' if they display the most salient features of the category, but vary freely in one or more clearly defined aspects. Balloons that deviate most significantly from *Comic Life*'s standards are therefore classified as 'extended other'.

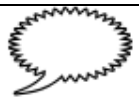
Type	Name	Definition
	Rounded balloon	*Strict*: The balloon is a smooth oval or circle drawn with a continuous and even line. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected sub-balloons; and/or there is no tail, or more than one tail.
	Thought balloon	*Strict*: The balloon has a fluffy cloud-form and a tail consisting of a sequence of bubbles. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected sub-balloons; the balloon is non-rounded; and/or there is no bubble-tail, or more than one bubble-tail.
	Interrupted contour balloon	*Strict*: The balloon is a smooth oval or circle drawn with a broken or dashed outline. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected balloons; the balloon is non-rounded; and/or there is no tail, or more than one tail.

	Serrated contour balloon	*Strict*: The balloon is an oval with a regular and serrated edge. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected balloons; the balloon is non-rounded; and/or there is no tail, or more than one tail.
	Jagged contour balloon	*Strict*: The balloon has sharp-edged protrusions to form a regular or irregular contour. *Extended*: Multiple balloons are partially merged, or connected, to form a complex multi-balloon shape; and/or there is no tail, or more than one tail
	Rectangular rounded balloon	*Strict*: The balloon is rectangular or square, with slightly bulging edges and rounded corners. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected balloons; and/or there is no tail, or more than one tail.
	Balloons with protruding edges	*Strict*: The balloon is a smooth oval or circle with four symmetrically placed angular protruding edges. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected balloons; the balloon is non-rounded; or there are more or less than four angular protrusions; and/or there is no tail, or more than one tail.
	Rectangular straight balloon	*Strict*: The balloon is rectangular or square, with straight edges and rounded corners. *Extended*: There are protrusions in one or more directions, possibly forming sub-balloons or connected balloons; the edges bulge inward or outward; and/or there is no tail or more than one tail.

OTHER	Anything else	*Strict*: Whatever is scored in any of the first eight categories as 'extended' is here counted as 'strict'. *Extended*: All balloon manifestations that were too deviant to be attributed to the 'extended' varieties in any of the above categories.

Table 2. The standard range of text balloons, as codified in the Comic Life application. Notes: (i) The tail or bubble extension can point up, down, left, or right; this does not prevent categorization as 'strict'; (ii) the fact that balloons may have been flattened because they are located against one of the panel's four sides, or are partially 'blocked' does not affect their categorization.

Table 3 provides the percentages for balloon form for each of the albums both on a 'strict' and an 'extended' count.

Type		*Picaros*	*César*	*Bandit*	*Avengers*	*Pirates*
	**Strict**	**9.1%**	**95.7%**	**95.2%**	**47%**	**--**
	Extended	**9.3%**	**99.1%**	**99.6%**	**75%**	**--**
	**Strict**	**0.1%**	**0.4%**	**0.2%**	**0.2%**	**--**
	Extended	**2.7%**	**0.4%**	**0.2%**	**0.2%**	**0.8%**
	**Strict**	**--**	--	**--**	**0.1%**	**--**
	Extended	**--**	--	**--**	**0.1%**	**--**
	**Strict**	**--**	--	**--**	**--**	**--**
	Extended	**3.9%**	--	**--**	**--**	**--**
	**Strict**	**0.8%**	--	**--**	**0.6%**	**0.4%**
	Extended	**0.9%**	--	**--**	**1.5%**	**0.8%**
	**Strict**	**--**	--	**--**	**--**	**--**
	Extended	**--**	--	**--**	**--**	**--**
	**Strict**	**--**	--	**--**	**--**	**--**
	Extended	**--**	--	**--**	**0.4%**	**2.2%**

	**Strict** **Extended**	**79.9%** **82.2%**	**--** **--**	**0.2%** **0.2%**	**2%** **3%**	**62.1%** **96.2%**
OTHER	**Strict** **Extended**	**10.1%** **1%**	**3.9%** **0.5%**	**4.4%** **--**	**50%** **20%**	**37.5%** **--**

Table 3. Frequency of different balloon forms according to the criteria in Table 2.

Comments: Table 3 demonstrates that different comics have different 'standard' balloons. Whereas oval balloons with a tail account for more than 95% of all balloons in the *Lucky Luke* and *Asterix* albums, the standard in *Tintin* is the rectangular balloon with rounded corners.[3]

Avengers uses its standard much less frequently than the others, especially on a strict count (47%). But even on an extended count only 75% of the balloons conform to this standard, which means that Marvel uses far more balloons with protrusions. Because the Marvel sample of 1581 balloons has been drawn from a vast series involving many artists, we should avoid generalizing about a whole genre. The score for *Avengers* in the 'extended other' category indicates that 20% of the balloons have such deviant designs that they do not fit in the extended categories of *Comic Life*'s ontology; they are thus the most unusual, at least by *Comic Life*'s standards. The European comics are far more normative by comparison. However, the 'other' category of the table does show that of the three European albums considered here, Hergé's *Picaros* makes the most original use of balloon form, while the fact that the balloons occur in five of the eight standard categories (as opposed to two in *César* and three in *Bandit*) demonstrates that Hergé here draws on a wider range of opportunities afforded by balloon form than his fellow European artists.

[3] We have ignored that the typical balloon in *Tintin* in fact has beveled corners, and scored this type as 'strict'; in *Pirates*, the standard speech balloon is also rectangular but with four sharp corners; this, too, has been counted as 'strict'.

2.2 Balloon color. A balloon can have a different color than the standard (white) to convey salient information.

	Picaros	*César*	*Bandit*	*Avengers*	*Pirates*
White	**95.9%**	**100%**	**100%**	**81.1%**	**100%**
Red	**0,4%**	--	**--**	**0%**	--
Yellow	**3.4%**	--	**--**	**2.4%**	--
Blue	**0.1%**	--	**--**	**0%**	--
Multicolored				**16.5%**	
Other	**0.2%**	--	**--**	**--**	--

Table 4. Variation in balloon color.

Comments: For the most part, non-white balloons in our data provide information about the emotional states and sensory experiences of characters. Usually, there is additional information to reinforce this, such as non-standard balloon form (see Table 3), the presence of non-verbal information (see Table 5), and/or non-standard fonts or orthography (see Table 6). An exception is *Picaros'* use of yellow, in combination with serrated balloon contours, whose function is the signaling of electronically relayed text and sound (via TV, radio, walkie-talkies). Again, we can gauge from Table 4 that both *Avengers* and *Picaros* make the broadest use of the spectrum available on this variable.

A variable not registered in Table 4 is the use of colored elements *within* balloons, such as pictograms or punctuation marks. *Bandit* has colored pictograms in the running gag of the curses (e.g. 3.2.1),[4] while *César* has colored flowers in 45.3.1. and 45.3.2, to convey the insincere or ironic nature of the verbal message. *Picaros* occasionally has colored punctuation marks (e.g. 1.4.3, 6.2.3a). In the 'Finale' section of *Avengers Assembled*, the heroes, about to disband, reminisce about the favorite moment in their shared history; here (tailless) balloons have a 'shadow' in a color that differs per Avenger.

[4] To facilitate identification of panels, the following three-number code is adhered to: the first number refers to the page, the second to the row, the third to the number in the row. Where necessary, the third number is further subdivided via letters (a,b,c).

2.3 Contents of balloons. In addition to or instead of verbal text, balloons can contain one or more of the following:

(i) Stand-alone punctuation marks, typically question marks and exclamation marks, indicating a character's surprise, shock, or confusion;

(ii) Pictograms (visual representations with a fixed, context-independent meaning, e.g. $  ; for more examples see Gasca and Gubern 2001: 312-411; Cohn 2007: 49-50) and pictorial runes (flourishes such as speed lines, droplets, and spirals to indicate emotion; for discussion, see Forceville 2005);

(iii) Non-speech vocalizations and onomatopoeias, which differ across languages (see Fresnault-Deruelle 1977). The former are involuntary utterances *produced* rather than *said* by characters (e.g. 'Pfouah!', 'Hic!', 'Snif'); the latter refer to words imitating sounds by non-human agents (e.g. 'Grrrr', 'Clic!', 'Toot').

Table 5 charts the frequencies of these in our data.

	Picaros	*César*	*Bandit*	*Avengers*	*Pirates*
Verbal text	**87.4%**	**94.1%**	**88.8%**	**94%**	**92.6%**
Stand-alone punctuation mark(s)	**7.5%**	**3.6%**	**6.3%**	**--**	**2.7%**
Pictograms and runes	**0.5%**	**2%**	**2.6%**	**1.5%**	**1.6%**
Non-speech vocalizations and onomatopoeia	**5.7%**	**3.6%**	**6.1%**	**4.5%**	**4.7%**

Table 5: Balloon contents. If a balloon features elements in more than one category, it is counted in each.

Comments: *Avengers* does not use stand-alone question and exclamation marks – a standard resource in the other works. The Marvel sample arguably strives for a cinematic feel, in which every utterance is a precise vocalization, as in a movie script. Alternatively, stand-alone punctuation marks may belong primarily to comics striving for humorous effects. As for pictograms, *César* has one panel (39.3.2) in which black flowers in a balloon indicate the insincerity of what is said (cf. 45.3.1 and 45.3.2). *Bandit* has

pictograms for snoring, cursing, and musical notes for singing and whistling, the latter also found in *Picaros*, *César*, and *Pirates*. Pictograms and in-balloon pictorial runes may be related to humor. Pictograms and punctuation marks are often colored. Note that it is sometimes a difficult (and even sensitive) issue to decide whether something is a 'non-speech vocalization' (e.g. the Indians' 'Ugh!' and 'woulouwoulou!' battle cry in *Bandit* – here *not* counted as belonging to this category).

2.4 Fonts and styles in balloons. Each comic has a standard balloon typeface. Deviations from the standard typeface comprise (i) various degrees of bold font; (ii) non-standard italics; (iii) different styles, fonts and/or sizes for different words within a balloon; (iv) letter contours that are angular, curved, compressed, or otherwise deviant. Large-sized bold face generally connotes loudness. The use of more than one style for different words in one balloon may suggest that only *part* of an utterance is spoken loudly or emphatically, while a sustained font-shift in mid-utterance can communicate a change in spoken delivery (e.g. *Picaros* 9.2.1).

	Picaros	*César*	*Bandit*	*Avengers*	*Pirates*
Plain-style	**0.3%**	**84.9%**	**84.4%**	**95%**	**62.9%**
Bold-style	**12%**	**14.7%**	**16.1%**	**26.5%**	**35.2%**
Italics-style	**87.6%**	**3%**	**10%**	**31%**	**32.4%**
Deviant typography	**3.2%**	**2.7%**	**--**	**5%**	**--**
Mixed styles	**0.7%**	**2%**	**1.7%**	**27%**	**20.3%**

Table 6: Variations in font and style within a single balloon. If a balloon features elements in more than one category, it is counted in each of these.

Comments: One panel of *César* (1.3.1) displays different translations used by a Roman tour guide at the Circus Maximus, rendered in mixed styles.[5] Deviant typography in

[5] Since in *Bandit* and *Pirates* all instances of bold fonts are also instances of italics, the latter category does not carry independent meaning (differences between the scores in both categories are the result of the fact that bold-faced standalone punctuation marks were not counted as italics, since it was impossible to assess this criterion). The high percentage of mixed styles in *Pirates* may be due to a preference to make clausal stress and intonation patterns systematically explicit visually.

César includes 'dancing' letters in text balloons emanating from drunk persons (e.g. 13.4.3; 43.1.2), while this style is in *Avengers* used for transcribing the speech of alien characters or magical incantations. Note that when avenger Tony Stark speaks as Iron Man, he has his "own" font, and his speech is generally rendered (in *The New Avengers*; not in *Avengers Assembled*!) in red print in a beige balloon.

2.5 Location of balloon source. The balloon's tail points to the person or agent vocalizing or thinking. We here chart the following varieties:

(i) The balloon's tail points to a visible source within the panel: a face, other body part, or apparatus (e.g. TV, radio). This is the standard situation.

(ii) The balloon's tail points to a non-visible source within the panel. Here the source is supposed to be present in the panel's frame, but is either invisible because s/he is too far away to be identifiable or because his/her presence is visually blocked.

(iii) The balloon's tail points to a source outside the panel, and may be cropped by its border. As readers we have to guess (or remember) who might be the source of the balloon's information. However, the balloon's intended producer is unidentifiable on the basis of visual balloon information within the panel.

(iv) A balloon's tail crosses the gutter to point to an identifiable source in another panel.

	Picaros	*César*	*Bandit*	*Avengers*	*Pirates*
Tail/bubbles point to visible source in panel	**91%**	**91.6%**	**90.7%**	**93.1%**	**88.3%**
Tail/bubbles point to non-visible source in panel	**6%**	**2.7%**	**1.5%**	**1%**	**4.3%**
Tail/bubbles point to source outside panel, ending or curtailed within panel	**3%**	**5.7%**	**7.6%**	**4.7%**	**7.4%**
Tail/bubbles point to source outside of panel, crosses gutter	--	--	**0.2%**	**1.2%**	**--**

Table 7: Location of source of the utterance in a balloon. Reported frequencies are for balloons with tails/thought bubbles only.

Comments: In mainstream narrative comics, it is generally clear who is the source of balloonic information. A tail pointing to a source outside of the panel may be used to provoke momentary surprise. Cases of tails crossing gutters are rare, occurring exclusively in *Avengers*, where this creates a dynamic, cinematic effect: voices emanate from off-screen, overlap, and maintain a functional ambiguity, whereby an utterance could be attributed to a plurality of characters. A feature not registered in Table 7 is the situation wherein a balloon 'bursts' and extrudes beyond the panels in which it belongs. This device, when combined with other visual features such as non-standard balloon form or bold face, tends to suggest excessive emotion. In the *Avengers* sample, where balloons frequently straddle the gutter between different panels, the bridging effect reinforces and paces the coherence of the narrative.

3. Paraballoonic features

We will now address various paraballoonic phenomena, whose only shared characteristic with balloons is that they have a tail or, alternatively, display onomatopoeia in quasi-balloonic, non-bordered zones in the picture. We will also address two other sources of verbal information: (i) narrator text ("*récitatif*" in Fresnault-Deruelles [1972] and "caption" in Saraceni [2003]); and (ii) written texts that are relayed via a medium in the story world itself, such as newspaper headings, graffiti, letters, and notices (Lefèvre and Baetens 1998: 18), which we will call 'inscriptions'.

3.1 Onomatopoeia outside balloons. Onomatopoeia is the device *par excellence* to convey non-verbal sounds in comics.[6] While onomatopoeia often occurs in balloons, it may also appear in white paraballoons without tails (*Picaros* 13.2.2; *César* 39.4.2; *Bandit* 9.2.1), or as a physical aspect of the scene itself. However, even in these cases onomatopoeia is often framed within a kind of border that lends it a quasi-balloonic status. This border-effect may be achieved by placing the onomatopoeia in the middle of

[6] See Fresnault-Deruelle (1977: 195-196) for a discussion of various types of onomatopoeic words in European and American comics.

an explosive cloud (*Picaros* 44.3.3, *Bandit* 36.4.1, *Pirates* 22.1.1), or by surrounding it by wavy sound lines (*Picaros* 35.4.1; *César* 21.3.1; *Bandit* 31.1.2). Alternatively, the onomatopoeia may be surrounded by a circle of short spiky lines (see Figure 1). In this latter case, because of the absence of a tail, there must be additional information making clear where the sound comes from, for instance the onomatopoeia being located physically close to its source.

Figure 1: Sound-enhancing straight lines (schematic)

3.2 Tails designating sound effects. A tail is sometimes used to indicate the source of a non-verbal event. In *Picaros*, little gray clouds have a tail pointing towards a pipe or cigar (21.1.3a, 31.4.2) to suggest a puffing sound or the source of the smoke, while white-tailed clouds are used in combination with onomatopoeia to convey slammed doors (*Picaros* 19.2.3; *César* 19.4.2) or to indicate other varieties of literal or figurative 'friction' (*Picaros* 19.4.2, *César* 7.3.1).

3.3. Captions. Captions are usually distinguished from balloons by visual means. This is important, because they convey the discourse of an agency at a different narrative level; that of a narrator that is not a character in the story world (see e.g. Bal 1997: Bordwell and Thompson 2008).[7] But since, like balloons, captions are containers filled with verbal text, it is useful to briefly compare captions to balloons. In mainstream comics, captions are formally distinguished from balloons by occurring, usually in boxes, at the top or bottom of panels, and by having no tails or thought bubbles, the latter being a logical consequence of the fact that they communicate information from an agency outside the story world. Presumably for the same reason, no pictograms or runes occur in captions in

[7] First-person character text in some comics occurs in boxes that are visually indistinguishable from those used for non-diegetic narrator text (eg. in Marjane Satrapi's *Persepolis* and in some sections of Manu Larcenet's *Le Combat Ordinaire*). It is thus necessary to distinguish between boxes' *visual form* and their *narrative function*.

our data; pictograms and runes suggest emotions and humor, while non-diegetic narrators are taken to be neutral, 'invisible' agents. Remarkably, however, several captions in *Pirates* feature exclamation marks (e.g. in 8.3.1; 10.3.1) and question marks (e.g. 18.1.1; 39.2.1), suggesting a degree of emotional involvement on the non-diegetic narrator's part.

Picaros, César, and *Pirates* make systematic use of a distinctive color for captions which in *César* are also used to provide translations of Latin words. *Bandit* uses mostly white captions, while the four yellow captions (8.1.1, 9.1.1, 10.3.2, 41.3.1) all indicate the passing of time (but cf. 19.1.2). In *Picaros,* narrator text in captions is moreover rendered in a different font, and in *Pirates* captions resemble tattered scrolls. The external narrator texts in *Avengers* consist of bold-face colored words that often appear directly on background visuals.

3.4 Diegetic, non-balloonic verbal inscriptions as part of pictures. Inscriptions are non-onomatopoeic verbal texts that are part of the visuals (street names, headlines, labels, graffiti, etc.). Like captions, but unlike onomatopoeia, inscriptions are meant to be silently read rather than mentally vocalized. Their status is primarily cued by *where* they occur, but font choice may also reveal something about the material or cultural dimensions of the object on which they appear. Thus *Picaros* uses a 'print' font for newspaper text (e.g. 5.1.2 and 9.2.4), and an irregular font for Alcazar's hand-written letter (53.4.2), while the name of a slave trader's shop appears in 'angular' print in *César* (15.3.2). *Bandit* uses a very different type of font than *Picaros* and *César* for the (painted) names of saloons and other prairie town buildings (e.g. 8.2.2, 16.1.1, 23.1.1).

4. Ontology of the balloon

Balloons and paraballoons are *containers* of verbal and non-verbal information. Furthermore, because of the orientation of the tail or line of thought bubbles, balloons indicate the *source* of salient information, and imply a *destination*. Moreover, non-standard varieties of balloons qualify the *manner* in which this information is to be understood. According to Lakoff and Johnson (e.g. Lakoff and Johnson 1980, Johnson 1987, Lakoff 1993), containment is a central human schema, enabling us to make sense

of numerous phenomena. Balloons contain information and can be seen as a visualization of Michael Reddy's (1979) *conduit* metaphor. Reddy points out that our ideas about language are modeled and constrained by the consideration that we understand meaning as residing *in* words and sentences. Communication is typically understood as a process in which a speaker puts meaning into words, which are then sent to the listener who then extracts the meaning from them.[8] The balloon appears to be a visual variety of the conduit metaphor: it is a 'bag' of words (or other signals) with a more or less specific meaning that is transmitted from a source to a destination.

While the source of balloonic information typically emanates from a human being or anthropomorphized entity, the destination of information is twofold. In most cases information is provided for the benefit of fellow–characters, but it is *always* provided for the benefit of the reader, who has privileged access to balloonic information that may not be available to other characters in the story world. Thought balloons are a good example because they are often the equivalent of interior monologue, conveying information that a character may suppress, or depicting dreams and hallucinations. We speculate that, owing to the conduit metaphor, any visual signs occurring in balloons acquire objective status. While iconic information in panels, such as gestures and facial expressions, may be ambiguous, visual signals in balloons have the same objectively explicit status as words.

'Manner' usually pertains either to the sound quality with which the information is conveyed (where 'loudness' is the most dynamic variable), or to the emotional state of the character from which the balloon emanates.

5. Embodiment or arbitrary convention?

An intriguing question is whether the various dimensions of (para)balloons should be considered as completely arbitrary conventions whose use seems natural only because we have become so used to them, or whether they are motivated. If we are to look for possible forms of motivation we may take our cue from what is known in cognitive

[8] Reddy discusses as a serious danger of this *conduit* metaphor, so deeply embedded in language itself, that meaning is understood as something that is objectively there, packaged into words by a sender and unpackaged, identically, by a receiver. In fact, meaning is construed with considerable effort by both sender and receiver, with the ever-present risk of misunderstandings.

linguistics as the theory of "embodied realism" (e.g. Lakoff and Johnson 1980, 1999). Embodied realism, or experientialism, refers to the ways humans make sense of their lives, as reflected in their use of language, which can be explained by the human body's reliance on sensory facilities and motor skills. This leads for instance to the dominance of the 'source-path-goal' schema, which does not only govern literal movement but also helps structure goal-directed behavior, as in expressions such as 'we are making *progress* on this project', or 'she is *ahead* of me'.[9] Here we will consider whether it makes sense to detect any embodied features in the balloon parameters identified above.

5.1 Typography. The choice of typeface is a visual feature of increasing importance, as computer programs provide users with a wide range of fonts. There does not appear to be anything 'embodied' in the choice of most standard typefaces or sizes for different sources of verbal information, with the exception of large, bold typeface to indicate loudness. This latter can be seen as a manifestation of the general notion that big equals more and, more specifically, size indicates volume. A 'cultural' motivation (as opposed to an embodied one) can be found in the fonts chosen for the Roman tour guide's multilingual translations in *César* (1.3.1).

5.2 Balloon color. There appears to be no embodied motivation for the use of balloon color other than white. Of course, in some albums there is internal color consistency once an (arbitrary) convention has been established, as holds for the yellow serrated balloons in *Picaros* indicating electronically relayed text. Onomatopoeic gunshots (*Picaros* and *Bandit*) and punches (*César*) occur in (para)balloons of varying colors, as do expressions of pain. A more extensive study might lead to the conclusion that the color red (see e.g. *Picaros* 11.2.2, 42.2.2) is preferred for situations associated with violence, strong negative emotion, and pain. As 'red' is associated with blood and heat, there might be an embodied motivation for its use in non-iconic signs.

[9] See Johnson (1987), Lakoff (1993), Turner (1996), Kövecses (2002), Forceville (2006), Forceville and Jeulink (2007).

5.3 Balloon contours. The *Picaros, Pirates* and *Avengers* samples recurrently deploy deviant balloon contours to mark special communicative circumstances. When contours are asymmetrical they are also often 'jagged'. Contours with irregular round, droplet-like edges are found in *Picaros* whenever a character drinks the whisky that professor Calculus has made unpalatable, causing the character to spit out the whisky. Here one can assume that the splashy contour iconically imitates the expelled liquid. A variant occurs in panel 3.3.2, where Haddock, after drinking, suddenly worries whether there may be poison in the whisky. Here the contour suggests dripping rather than centrifugally-dispersing droplets, perhaps mimicking 'breaking out in a sweat' or suggesting that the balloon falls apart or melts. Hergé is highly consistent in his use of irregular contours to suggest a negative emotion or experience. It is moreover noteworthy that in most cases, Hergé's irregularly contoured balloons also break the frame, adding to the impression of abnormality and excess. In *Pirates*, speech balloons with a deviant or jagged tail indicate a sudden increase of narrative tension or unexpected danger (9.3.2), accusations (15.3.3; 25.2.1), or sudden rage (26.1.1).

We hypothesize that the above is not an arbitrary convention. As far as *form* is concerned, we can roughly distinguish between, on the one hand, 'angularity' or 'jaggedness' and, on the other, 'roundness' and 'smoothness'. As far as *contour* is concerned, there is a rough dichotomy between symmetry and asymmetry. Other things being equal, angularity and asymmetry have more negative connotations than roundness and symmetry. Sharp, angular things are dangerous and potentially harmful, unlike rounded, smooth things. In addition, humans have a strong preference for balance and symmetry (Arnheim 1969: chapter 1; Ramachandran and Hirstein 1999: 27). The idea that asymmetry in balloon-contour connotes 'bad' things may therefore be rooted in embodied cognition. Moreover, these phenomena also play a role on the level of elements *within* (para)balloons: the 'rule' that angularity and asymmetry evoke negative connotations appears to be borne out in letters, pictograms, and runes as well.

5.4 Balloon contents. As indicated, pictograms have clear denotations and, in many cases, unambiguous connotations. In *Picaros,* the pictorial runes found in balloons and paraballoons are restricted to the expression of music, in *César* to droplets surrounding

drunken 'hiccups', and in *Bandit* to curses – although in the latter case the distinction between runes and pictograms is sometimes unclear. Whether all, some, or none of these elements are motivated signs is an issue that cannot be resolved here.[10]

5.5 Location of source of balloons. The convention of the balloon tail pointing to the mouth of the speaker makes sense if we see the tail as a variation on an 'arrow' (Lefèvre and Baetens [1993] use the Dutch word for 'arrow', *pijl*, for the tail), but this may be the result of a cultural rather than an embodied motivation. In contrast, the convention of a tail pointing outside of a panel to denote the speech of somebody who is not yet, or no longer, in the field of vision or attention of the person(s) represented in that panel does seem to reflect our everyday embodied experience.

6. Convention and creativity in comic balloons

On the basis of the comics we have investigated, we propose the following description of the prototypical balloon. It is (i) a symmetrically formed (ii) white-colored (iii) oval or rectangular container (iv) with a continuous contour (v) located above or to the side of the character's head (vi) and linked by a tail (or thought bubbles) to a visible character, who thereby is designated to be the source of the information represented in the balloon (vii) which information is verbal text.

If we compare the balloon forms discussed in our data with the *Comic Life* inventory, it is noticeable that artists often vary freely from the stylized norms proposed there. Furthermore, in *Picaros*, *Avengers*, and *Pirates*, the basic balloon form differs in minor respects from the stylized norm (beveled corners, multiple protrusions, and variations on the round-edged rectangle). Balloon form thus provides an opportunity to help create a specific visual style for specific works.

The possibilities for creative play with balloonic norms are substantial, not least because the variables can be combined in many permutations. For instance, although

[10] For a tentatively affirmative answer for runes, see Kennedy et al. (1993), Forceville (2005), Shinohara and Matsunaka (forthcoming) and Eerden (forthcoming).

pictograms have almost completely fixed meanings, making them functionally equivalent to what in other arts are called 'symbols', it is possible to vary pictograms.[11] Moreover, one occasionally comes across unique iconic visuals in balloons, for instance depictions of people or events that a character is speaking or thinking about, and across deliberately unreadable text (Figure 3a). Another source of creative play pertains to exposing the balloon as artifice. One way of doing this is by turning balloons into literal containers (Figure 3b) or objects (Figure 3c); or letting characters somehow interfere with their own or another character's text or thought balloon. An interesting example of this is Figure 3d, in which a young man either is in the process of putting a real heart (his own?) in his thought balloon, in between an 'I' and a 'U' – or of removing it. The balloon use is daring on three counts: it allows a character to manually add something to (or detract from) a layer of text that ordinarily can only be manipulated at the level of narration; the (bleeding) heart is possibly ripped from his own body; and the 'real' heart grimly plays with the convention of the pictogram that one might have expected to see instead.

PICTURE TEMPORARILY OMITTED TO REDUCE FILE SIZE (SEE PDF VERSION)	PICTURE TEMPORARILY OMITTED TO REDUCE FILE SIZE (SEE PDF VERSION)	PICTURE TEMPORARILY OMITTED TO REDUCE FILE SIZE (SEE PDF VERSION)	PICTURE TEMPORARILY OMITTED TO REDUCE FILE SIZE (SEE PDF VERSION)
Francois Ayroles (2001). [s.n.] Lapin 28. Paris: L'Association, p. 67.	Willy Vandersteen (1995). *Suske en Wiske: De Tamtamkloppers*. Antwerpen: Standaard, p. 4.	Merho [Robert Merhottein] (1994). *Kiekeboe* 26 Antwerpen: Standaard, p. 14.	Found on internet; source and provenance irretrievable

Figure 3a-d. Creative balloon use, examples a-c thanks to Gert Meesters

[11] Examples in our data are *Bandit* 21.3.1 and *César* 5.3.3, 39.3.2; for many more see Gasca and Gubern's (2001) richly illustrated book.

7. Concluding remarks

In this chapter we have offered the first version of a 'blueprint' of the comics balloon by identifying a number of its crucial variables in five different comics sources. This is only a modest beginning. Examples of significant phenomena encountered but not counted in our data include balloons 'breaking the frame', letters 'breaking the balloon', and untranslated foreign/alien balloon text, while the current formulation of the norms and variables themselves requires extensive comparison with many other comics, and is in need of further extension and refinement. Moreover, calculating *correlations* between variables will be necessary to fully reap the fruits of the laborious counting work exemplified here; as we have informally noted, many deviations from the norm occur in specific combinations (e.g. bold face *and* angular jagged balloon form *and* the balloon breaking the frame). Finally, we have only hinted at the subject of creative balloon use. Nonetheless we hope the current chapter offers a starting point for further analyses. Let us summarize what we see as the merits of our approach:

Charting and analyzing balloon variables aids in the characterization of stylistic features. Clearly, the somewhat arbitrary choice of comics in this chapter does not allow for sweeping or conclusive generalizations. But at least cautious claims can now be formulated as hypotheses and, more importantly, they suggest how, in the interest of comics scholarship, further comparisons can be conducted within and across oeuvres, styles, and cultural traditions.

Recurring deviations from a balloonic norm invite theorization of and experimentation with the ways in which pertinent information is conveyed visually. Just as designers in other genres and professions, comics authors strive for new and creative ways to make form meaningful and concise. Balloons are a crucial element of comics, demonstrating substantial variation but ultimately governed by conventions. The analytic approach adopted in this chapter also provides the basis for experimental research, since balloon variables can be combined in many different permutations and their effect on viewers tested under controlled conditions.

Balloon variables can be studied for their place on the 'embodied-accultured' continuum. We have suggested that features such as 'symmetry' versus 'asymmetry' and

'jaggedness' versus 'roundness', both in balloon form and in elements occurring within balloons, suggest deeply rooted, embodied and hence possibly universal features of human perception. Other variables may be more culturally or idiosyncratically determined. Investigations of balloons in comics are thus highly germane to discussions about the continuum between embodied and accultured meaning, as argued by cognitive linguists (e.g. Lakoff and Johnson 1980, 1999; Kövecses 2002, 2005; Gibbs 1994; 2006; Yu 1998).

Acknowledgments This chapter was written in 2008 during the authors' fellowship at the VLAC (Vlaamse Academie), the Centre for Advanced Studies of the Royal Flemish Academy of Belgium for Science and the Arts in Brussels, where they worked on the project *The Agile Mind: Creativity in Models and Multimodal Discourse*. The first author has gratefully used the library of the *Centre Belge de la Bande Dessinée* in Brussels. We warmly thank Gert Meesters (University of Liège) and Lisa El Refaie (University of Cardiff) for their insightful comments on, and corrections in, an earlier draft of this paper.

8. References

Arnheim, Rudolf. *Art and Visual Perception: A Psychology of the Creative Eye*. London: Faber and Faber, 1969 [1954].

Bal, Mieke. *Narratology: Introduction to the Theory of Narrative* (2nd edition). Toronto: University of Toronto Press, 1997.

Bordwell, David, and Kristin Thompson. *Film Art: An Introduction* (8th edition). Boston etc.: McGraw-Hill, 2008.

Cohn, Neil. "A visual lexicon". *Public Journal of Semiotics*. Vol. 1(1): 53-83, 2007. [Flash version]. http://www.semiotics.ca/issues/pjos-1-1.swf (December 2008)

Eerden, Bart. "Anger in Asterix: The metaphorical representation of anger in comics and animated films", in *Multimodal Metaphor*. Berlin: Mouton de Gruyter. Eds. Forceville, Charles, and Eduardo Urios-Aparisi, forthcoming.

Eisner, Will. *Comics and Sequential Art*. Tamarac, Flor.: Poorhouse Press, 1985.

Forceville, Charles. "Visual representations of the Idealized Cognitive Model of anger in the Asterix album *La Zizanie*". *Journal of Pragmatics*. Vol. 37 (2005): 69–88.

--. "The source-path-goal schema in the autobiographical journey documentary: McElwee, Van der Keuken, Cole". *New Review of Film and Television Studies*. Vol. 4 (2006): 241-261.

--. and Marloes Jeulink. "The source-path-goal schema in animation film". Paper presented at the 10th International Cognitivist Linguistics Conference, Jagiellonian University, Krakow, Poland, July 2007.

Fresnault-Deruelle, Pierre. *Dessins et Bulles: La Bande Dessinée comme Moyen d' Expression*. Paris: Bordas, 1972.

--. "La visualization des phénomènes sonores", in: *Récits et Discours par la Bande: Essais sur les Comics.* Paris: Hachette, 1977: 169-201.

Gasca, Luis, and Román Gubern. *El Discurso del Comic*. Madrid: Catedra, 2001 [1994].

Gibbs, Raymond W., Jr. *The Poetics of the Mind: Figurative Thought, Language, and Understanding*. Cambridge: Cambridge University Press, 1994.

---. *Embodiment and Cognitive Science*. Cambridge: Cambridge University Press, 2006.

Johnson, Mark. *The Body in the Mind: The Bodily Basis of Meaning, Imagination and Reason*. Chicago: University of Chicago Press, 1987.

Kennedy, John M. "Metaphor in pictures". *Perception*. Vol. 11 (1982): 589-605.

---, Christopher D. Green, and John Vervaeke. "Metaphoric thought and devices in pictures". *Metaphor and Symbolic Activity*. Vol. 8 (1993): 243-255.

Kövecses, Zoltán. *Metaphor: A Practical Introduction*. Oxford: Oxford University Press, 2002.

---. *Metaphor in Culture: Universality and Variation*. Cambridge: Cambridge University Press, 2005.

Lakoff, George. "The contemporary theory of metaphor", in *Metaphor and Thought* (revised edition). Ed. Ortony, Andrew. Cambridge: Cambridge University Press, 1993: 202-251.

---, and Mark Johnson. *Metaphors We Live By*. Chicago: University of Chicago Press, 1980.

---, *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books, 1999.

Lefèvre, Pascal, and Jan Baetens. *Strips Anders Lezen*. Brussels: Sherpa and BCB, 1993. [This study is also available in French.]

McCloud, Scott. *Understanding Comics: The Invisible Art*. New York: Paradox, 1993.

Peeters, Benoît. *Case Planche Récit: Lire la Bande Dessinée*. Tournai: Casterman, 1998.

Reddy, Michael J. "The conduit metaphor: A case of frame conflict in our language about language", in *Metaphor and Thought*. Ed. Ortony, Andrew. Cambridge: Cambridge University Press, 1979: 284-324.

Ramachandran, Vilayanur S., and William Hirstein. "The science of art: A neurological theory of aesthetic experience". *Journal of Consciousness Studies*. Vol. 6 (6-7) (1999): 15-51.

Saraceni, Mario. *The Language of Comics*. London: Routledge, 2003.

Shinohara, Kazuko, and Yoshihiro Matsunaka. "Pictorial metaphors of emotion in Japanese comics", in *Multimodal Metaphor*. Eds. Forceville, Charles, and Eduardo Urios-Aparisi. Berlin: Mouton de Gruyter, forthcoming.

Turner, Mark. *The Literary Mind*. New York: Oxford University Press, 1996.

Walker, Mort. *The Lexicon of Comicana*. Lincoln NE: Authors Guild Backinprint.com Edition (first published by Museum of Cartoon Art), 2000 [1980].

Yu, Ning. *The Contemporary Theory of Metaphor: A Perspective from Chinese*. Amsterdam: John Benjamins, 1998.