

ARTICLE

Ordering Comics

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Abstract

Comics can be ordered in a range of ways, most overtly by issue number for works within a series, and by page number for pages within works. The internal elements of a comic can also be ordered by formal details found within pages. We identify four kinds of formal details specific to comics pages or two-page spreads: how their elements are arranged, how they are viewed, what events they represent, and when information about those events is presented.

Keywords: arranged order; discourse; diegesis; chronological order; comics; narrated order; viewed order

1. Introduction

Comics can be ordered in a range of ways, most overtly by issue number for works within a series, and by page number for pages within works. The internal elements of a comic can also be ordered by formal details found within pages. In this paper, we identify four kinds of formal details specific to comics pages or two-page spreads: how their elements are arranged, how they are viewed, what events they represent, and when information about those events is presented.

Though comics may or may not contain explicit sentences, typically rendered in caption boxes or speech or thought bubbles, the following sentences illustrate these four formal orders:

- | | | |
|---------------------------------|-------------------------------|----------------------------------|
| 1. The family thanked the hero. | 2. Muggers had accosted them. | 3. The hero stopped the muggers. |
|---------------------------------|-------------------------------|----------------------------------|

The first order, which we term “Arranged Order,” is the sentences’ spatial arrangement relative to one another within the shared visual field of this page. That is left, middle, and right. Had they been arranged vertically, then their Arranged Order would have instead been top, middle, and bottom.

The second, which we term “Viewed Order,” is the sentences’ temporal arrangement relative to one another on the page of when they are read (or viewed). The cultural norm of reading English from left to right and from top to bottom (termed a “Z-path” in comics) allows the three temporally simultaneous sentences to be understood sequentially. That is first, second, and third. But that is not necessary, since a reader’s attention could fall on the sentences differently. Viewed Order potentially varies per viewer.

The third, which we term “Chronological Order,” is the temporal arrangement of events that the sentences represent relative to one another as they occurred in the represented world (chronologically). That is second, third, and first. Muggers accost a family, a hero stops the muggers, and the family thanks the hero. Since “chronological” refers to events following one another, it is relative to the individual participants of the events—as demonstrated in stories

involving time-travel. The events of a time-traveler have a chronological order distinct from the chronological orders of people and objects that do not time-travel.

The fourth, which we term “Narrated Order,” is the temporal arrangement of events that the sentences represent relative to one another are presented (or narrated). That is first, second, and third. The narrator states that the family thanked the hero, that muggers had accosted the family, and that the hero stopped them. Flashbacks are the prototypical example of Narrated Order diverging with Chronological Order. Telling events “out of order” means that the events occurred chronologically and now those events are being presented in a Narrated Order that differs. Also, when multiple events occur at the same moment chronologically, they must be placed in some sequence when narrated. While verbal narration involves such things as tense (the first and third sentences are past, and the second is past perfect), Narrated Order does not. Had the verbs been differently tensed (all past, say, or the first present and the others past), then neither the Narrated nor the Chronological Orders would change.

These distinctions require a more general distinction. While the terms “discourse” and “diegesis” have been used in various ways, we stipulate meanings to aid the visual analysis of comics. While we were previously (Goldberg and Gavalier 2022) focused exclusively on linguistic objects (such as prose novels), we now expand our definitions to include pictorial content. When regarding comics, call a “discourse” a comic understood as its purely physical properties, which can be used as a means of representing some content. Call a “diegesis” the represented content constituted when a discourse is viewed and interpreted. As we discuss in detail elsewhere (Gavalier and Goldberg 2021; Goldberg and Gavalier 2022), a discourse is response-independent in the sense of analyzable without referencing to viewers. A diegesis is response-dependent in the sense of analyzable only with referencing to viewers.

We claim that the four formal orders—Arranged, Viewed, Chronological, and Narrated—comprise a formal system itself ordered in two orthogonal ways. On the one hand, Arranged and Viewed Orders are arrangements representing events. External to the story world, they are discursive orders. Chronological and Narrative Orders are arrangements of represented events. Internal to the story world, they are diegetic orders. On the other hand, Arranged and Chronological Orders are arrangements *independent* of some subject: the external viewer and internal narrator. They are in that sense objective. Viewed and Narrated Orders are arrangements *dependent* on some subject: the external viewer and internal narrator. They are in that sense subjective. They can be displayed together thus:

	Discursive	Diegetic
Objective	Arranged	Chronological
Subjective	Viewed	Narrated

Orders require units to be ordered. In our opening example we treated sentences as the primary units of prose. Though sentences appear often in comics, they are not the primary units of a comics page. With Arranged and Viewed Orders, we treat discursive panels as such units. Though a comics page need not include panels, panels are a traditional visual device for grouping sets of marks comprising images and often words. For Chronological and Narrated Orders, units are diegetic events. Like panels, events are ambiguous. We accept cognitive scientists Jeffery Zack and Barbara Tyverky’s definition of “event”: “a segment of time at a given location that is conceived by an observer to have a beginning and an end” (Zack and Tyversky 2001).

As far as we know, we are the first to distinguish these four orders. Ultimately, the question may not be whether this set of orders exists but whether the set is interesting, salient, or useful for understanding comics practice—much as Currie (2004) argues on behalf of any specific set of genres from an infinite number of possible genres. We begin by considering two comics scholars who anticipated but confuse our distinctions. We then provide examples of different combinations

of our four orders, demonstrating comics' unique expressive power. We end by suggesting questions that our analysis of Arranged, Viewed, Chronological, and Narrated Orders raises.

2. Reordering McCloud

Because Scott McCloud and Thierry Groensteen are especially prominent comics theorists who anticipate some of our results in unclear ways, we spend this and the next section clarifying them. Those interested in only how our results apply to particular comics may without loss skip them.

McCloud (1993) works in the comics form, demonstrating the page qualities that he simultaneously discusses, thereby intentionally merging discourse and diegesis. McCloud nevertheless fails to distinguish our four orders. When talking about panels coming "before" and "next," he refers to Arranged Order. When talking about eyes "focused," "moving," and "changing direction," he refers to Viewed Order. When talking about "representing," he refers to Narrated Order. And when talking about "past" and "future," he refers to Chronological Order.

McCloud draws a comics page with 10 panels, each containing text and images (104). The text in seven panels is framed by a speech bubble with a pointer indicating that McCloud's cartoon representation is speaking. Though the text in the seventh panel is framed by a caption box and the text in the eighth is unframed, the implication is that McCloud's speech is continuous.

He begins in the first panel:

In comics, as in film, television, and real life, it is always now.

It is unclear which of the four orders McCloud means. Arranged Order is non-temporal, so the temporal descriptions cannot apply. Because of the adverb "always," he cannot be describing Chronological Order, since sometimes events depicted in comics (and other media) occur before the narrative point at which they are being described through flashbacks or flashforwards. He could be describing Narrated Order, since a narrator "always" narrates from their "now" within their diegetic world, or Viewed Order, since a viewer "always" views from their "now" within the actual world. Perhaps he is describing both, because both are subjective. If so, he is conflating narrator and viewer, who are distinct.

The distinction between the diegetic "now" of Narrated and Chronological Orders and the discursive "now" of Viewed Order is overt in historical fiction and diaries where a first-person narrator of the story-world narrates from their present moment about events that the reader understands as taking place in the past. McCloud (1993) is not historical fiction or diary but does represent past events, and, since it is nonfiction, actual ones where McCloud and his audience exist in the same timeline. McCloud's cartoon avatar also represents temporal characteristics about himself. He was 33 when McCloud (1993) was published, and his self-representation conforms loosely to that. When McCloud (2006) was published 13 years later, he added areas of gray to his cartoon hair. McCloud turned 63 in 2023, and a viewer in 2023 likely understands the "now" of McCloud's (1993) narrator as referring to McCloud the writer-artist in 1993 not 2023. So "always now" could refer to either the viewer (and so Viewed Order) or to McCloud's narrator (and so Narrated Order) but not to both. Yet McCloud may intend to do so anyway.

He continues in the next three panels:

This panel and this panel alone represents the present.

Any panel before this—that last one, for instance—represents the past.

Likewise, all panels still to come—this next panel, for instance—represent the future.

Because McCloud is talking about particular panels *qua* panels, he is talking about discursive order—Arranged, Viewed, or both. Though not distinguishing them, what he says does not apply to Viewed Order. Though he indicates "this next panel" and "panels still to come," McCloud cannot know that the panel will actually be next in Viewed Order or whether a viewer has already looked



ahead to those "still to come." However, "This panel" and "Any panel before this" and "this next panel" are also diegetic since McCloud's avatar speaks as though aware that he exists on a comics page. McCloud's analysis merges without distinguishing Arranged and diegetic Chronological Order.

He continues in the fifth and sixth panels:

But unlike other media, in comics the past is more than just memories for the viewer and the future is more than just possibilities.

Both past and future area real and visible and all around us.

Gone is talk of “representing.” The point now is arrangement, so the temporal terms “past” and “future” do not apply. He continues to talk about Arranged Order without distinguishing it from Viewed. But it is also unclear whether he means the past and future in discursive or diegetic time. If diegetic, then the “representing” continues, which visually it must since McCloud continues to draw his avatar speaking. Both Arranged and Chronological Orders remain merged.

His speech, though not his avatar, continues in the seventh panel:

Wherever your eyes are focused, that’s now. But at the same time your eyes take in the surrounding landscape of past and future!

Beneath his text he draws a lone eyeball inside a panel frame surrounded by other panels containing indistinct content—a representation of a comics page like the comics page in which the image appears. This contradicts what seemed to be his point above, which was reason to think that he meant Arranged rather than Viewed Order. Also, instead of referring to certain panels as “next” or “still to come,” he understands the arrangement as temporally simultaneous. The “now” seems discursive (the viewer’s), and yet “past and future” seem diegetic—otherwise there would be nothing remarkable (and so warranting an exclamation point!) about objects in the periphery of a viewer’s scanning eye.

The eighth panel includes overt ordering with five smaller panel frames, each in turn containing –3, –2, –1, an eye surrounded by circular motion lines, and 1. Above the image he writes:

Like a storm front, the eye moves over the comics page, pushing the warm, high-pressure future ahead of it, leaving the cool low-pressure past in its wake.

The order of the inner panels is merely conceptual according to the subject (the grid of the previous image is gone) and so refers to a presumed Viewed Order, as further suggested again by an eye. The numbers would presumably change, –3 to –4, etc., as the eye continues, still suggesting Viewed Order. Taken in isolation, the panel content, including the reference to “future” in the text, would be accurate—but also absurdly self-evident, describing the order of everything anyone sees. Again, “future” must mean diegetic and presumably Chronological Order with the assumption that it matches the Narrated Order, since the “future” would progress differently if any of the inner frames employed flashbacks or flashforwards.

The contradiction continues in the final two panels, where McCloud’s avatar speaks again:

Wherever the eye hits land, we expect it to begin moving forward.
But eyes, like storms, can change direction!

Again, what matters is no longer the spatial placement of panels but when those panels are viewed. Viewed rather than Arranged Order is what he has in mind—though the contradictorily diegetic future is “moving forward,” not the viewer’s. And if the viewer’s eye does “change direction,” it would move (inevitably) forward in real time while moving backward in diegetic time.

3. Reordering Groensteen

Groensteen is arguably the most highly referenced comics theorist across continents, most notably after he (Groensteen, 2007, first published in French in 1999) helped to establish the prominence of semiotics in comics analysis. Groensteen (2010) specifically addresses the nature of time in comics. Unlike McCloud (1993), Groensteen does not work in the comics form, demonstrating the page qualities that he simultaneously discusses. However, like McCloud, Groensteen merges discourse and diegesis and confuses our four orders.

Contrasting comics with film, Groensteen claims that “the cinematic image only has a single tense: the present” (5). Semiotic murkiness already is evident. Tenses are specific to verbs not images. Tensed verbs establish the chronological relationship of an event and its narration. The

narrator of a sentence may either align with the event (telling the event from the same moment as the event) or misalign (telling the event before or after). If an image has a narrator, that narrator always aligns with the narrated event because the viewpoint (the spatiotemporal vantage point from which the subject of the image is observed and rendered) is embedded in the image. This is presumably what Groensteen means but not what he says.

He goes on to claim that “cinematic images” are in the “present” “tense” even “within a flashback,” because “we find ourselves once again in solidarity with the instant, in immediate communion with the events related, even if these preceded the principal narrative of the events previously told” (5). A flashback describes Narrated Order, which Groensteen analyzes in relation to “the instant” of Viewed Order. But that conflates the two subjective orders. Since tense is diegetic, even if an image could be present tense, that present has no relationship to the present of viewers.

Groensteen continues: “at the moment when we look at an image, indeed any type of image, it puts a scene before our eyes in the here and now” (6). “Now” is relative only to a viewer, but “here” as a spatial term refers to Arranged Order, though for single images there is none. That is Groensteen’s point: film consists of single images, comics of simultaneously arranged ones. Thus, in comics, unlike in film, “images cannot produce the illusion that events are unfolding in the present,” because “each new image does not obliterate the previous one or take its place, but rather adds onto it in the manner of accumulation and collection, with the full range of images remaining easily accessible at all times” (5).

Yet what Groensteen says is quadruply problematic. First, the contrast between comics and film concerns Arranged Order: comics have one and film does not. For film, there is no Viewed Order either: one image, one moment of viewing it. Second, even if comics viewers perceive images as they accumulate or collect, they still perceive their accumulation or collection in the viewers’ present. Third, the accumulated images have Arranged Order, which Groensteen ignores presumably because viewers must ignore it to focus on any single image. Nevertheless, for multiple images on a comics page to be perceived as simultaneously “in the present,” Arranged Order and Viewed Order must be distinct. And fourth, when Groensteen talks about “the illusion that events are unfolding in the present,” he means unfolding in either (a) the discursive present of the viewer or (b) the diegetic present of the story. Yet (a) is false. Rather than an illusion, events literally unfold in the present relative to the viewer. Conversely (b) is unclear. Though there is an illusion, it is of animation in contrast to still images (whether viewed individually or simultaneously in an arrangement). A clearer contrast would be between comics and slideshows.

Instead, Groensteen understands the accumulation of a comics page as having occurred in the past, explaining that images in comics are “not linked in the same way to the present” as are images in films and that “all comics should be seen, by their very nature, as being in the past, on account of the panoptic spread of the images: at the very instant when my attention is focused on one of them, I can already perceive the following frames—I can see the future is *already there*” (6). This too is confused. Is the “future” relative to the events conveyed by the images, involving the diegetic Chronological or Narrated Order, or is that “future” the viewer’s, involving the discursive Arranged or Viewed Order? Since he mentions “the very instant when my attention is focused,” that suggests Arranged Order. But then the point is anodyne. When viewers look at any fixed visual field consisting of multiple parts that can be apprehended individually (say, a kitchen), the parts would by Groensteen’s logic be “in the past” because the accumulation (a toaster to the left of a sink, a sink, a coffee machine to the right of the sink) has an Arranged Order. All Arranged Order would be “in the past.” If Groensteen’s claim instead alludes to Viewed Order, it is false, since a viewer’s actual future is indeterminate. They may or may not continue viewing the individual images on a comics page (or the objects on a kitchen counter). Nor does Groensteen mean either kind of diegetic order, Chronological or Narrated, because he is focused on “the very instant when my attention is focused” and so on viewer rather than diegesis. Since the diegetic content of “the following frames” could be in the past, present, or future relative to the diegetic content of the currently viewed image, Narrated Order does not apply either.

Groensteen again continues: “it is possible for me to seize, by glancing ahead, events that are yet to come,” concluding, “the future is already present” and therefore “the present must tend to slip

towards the past” (6). While Groensteen might seem to be talking about Viewed Order when discussing “events that are yet to come,” he is referring not to events such as the viewer’s reading the comic but to events represented by the comic. If Groensteen did mean Viewed Order, then “the future” is not “already present.” Someone can simply stop looking at the comic. That it is possible to glance ahead is not a function of the viewer having done so but of the later images occurring simultaneously in Arranged Order. But since Arranged Order is spatial and not temporal, it does not have a “future,” and the images exist regardless of when or if they are viewed. Hence Groensteen confuses Viewed Order with Arranged Order. As for “the present must tend to slip towards the past,” the claim seems to be about Arranged Order, a restatement of the point about accumulation and collection, though it is unclear what the equivocal verbs “tend” and “slip” denote or, since the phenomenon apparently is not fixed, what determines it.

Finally, observing a general “temporal imprecision” that comics artists may manipulate, Groensteen claims that “the opening frame of a comic includes an implicit ‘that’s how it all started’, and to each that follows there corresponds a ‘and this is what happened next’” (6). This confuses Arranged Order (the opening frame is the opening frame whether viewed or not) with Narrated Order, while also returning to the misapplication of verb tenses: “is” establishes the temporal position of the narration as diegetically current through present tense, while “happened” establishes the temporal position of the narrated event as diegetically previous through past tense. If the opening frame includes no words, then event and narration would align. The opening frame is also where the accumulation and collection of the comics page “all started,” and so Arranged Order, and the opening frame may also contain content of the first diegetic event, aligning Arranged Order with both Chronological and Narrated Orders. And if a viewer attends to the opening frame first, Viewed Order aligns too. Yet, as we give examples of below, none of those alignments is necessary.

4. Arranged and Viewed Alignment and Misalignment

To illustrate our own analysis, we take our lead from Groensteen. Where Groensteen contrasted comics with film, we contrast comics with a medium sharing comics’ book format: prose-only novels. Arranged, Viewed, Chronological, and Narrated Orders align differently both in and between prose-only novels and comics. We look at the two discursive orders, Arranged and Viewed, first.

In prose-only works, Arranged and Viewed Order prototypically align. While a reader is free to read sentences in an order different from the typesetting, skipping forward or backward would likely produce confusion and contradict impressions of authorial intent. Typically, sentences in English are written to be read in one order, a Z-path (left to right, top to bottom). Though Arranged Order is atemporal, readers likely understand an arrangement of words as implying an intended Viewed Order. Readers may skim, and therefore skip over some words, or return to previous words for further clarity, but always while tracking Arranged Order. Whatever their selected Viewed Order, readers necessarily read one word at a time. While they are physically capable of adjusting their focus to take-in a larger block of text at once, they cannot decode diegetic content while doing so. Doing so means that they have paused the Viewed Order of individual words and so have stopped reading. There are however cases in prose-only works where the orders misalign. Perhaps the most notable are choose-your-own-adventure novels. There a reader is expected to read sentences (as part of paragraphs and sometimes chapters) out of Arranged Order, viewing non-consecutive sentences after physically turning to different pages in a book. Text-based computer adventure games incorporate this model, and though they do not have physical book sections to which readers physically turn, they do have physically encoded text sections of which reader choices determine Viewed Order.

In comics, Arranged and Viewed Order prototypically misalign. While a comic may or may not include text, it necessarily includes images. Because the diegetic content of an image can be apprehended with a glance, a comics viewer may skip around diegetic content—even

inadvertently—in ways that prose readers cannot because the diegetic content of a sentence requires word-by-word reading impossible at a glance. Also, though comics viewers can apprehend images one at a time with no awareness of the larger page, they typically do not. Even when images within a page arrangement are viewed one at a time, viewers are also simultaneously aware of the arrangement as a whole.

Hillary Chute identifies this “duality,” how “one’s eye may see the whole page even when one decides to commence reading with the first box of the first tier,” as “a defining feature of comics” (Chute, 2010: 8). Mikkonen and Lautenbacher confirm the theoretical viewing behavior through objective measurements of study participants: “Global attention appeared essentially in the starting phase of the reading, regularly focusing on the center of the double-page spread, but also in the refocusing or checking for possibly meaningful elements during and at the end of reading” (Mikkonen & Lautenbacher, 2019: 23). And Ian Hague explains the duality through the physiological process of accommodation in eye muscles:

When focusing on nearby objects, the ciliary muscles contract and cause the lens to become thicker and increase its curvature. Conversely, when we focus on more distant objects the muscles relax and the lens becomes flatter.... [A]ccommodation takes us from focusing on the broader spread to the tighter focus on the more specific details (panels, word balloons, etc.) adjusting the curvature of the eye to ensure that we are able to see each element clearly as required. (Hague, 2014: 46–47)

Groensteen himself establishes that “the panoptic spread”—the set of images before a comics viewer at a given moment—is the central unit of concern, and that the viewer is capable of “glancing ahead” within that spread. Though Viewed Order will differ according to viewer, we suspect readers of this essay viewed the above page from McCloud’s (1993) in a manner that illustrates this point.

The paradigmatic comics page then is both a sequence of individual images viewed independently and sequentially and a set of images viewed simultaneously. In comics, therefore, Arranged Order and Viewed Order paradigmatically misalign. As with a page of prose, however, Arranged Order is deeply associated with Viewed Order, which in English-language comics often defaults to a Z-path and secondarily to an N-path (top to bottom, right to left). Comics viewers familiar with those conventions likely assume a Z-path. Even in such a case though, actual Viewed Order likely (and, according a range of comics scholars, paradigmatically) misaligns with any path inferred from Arranged Order.

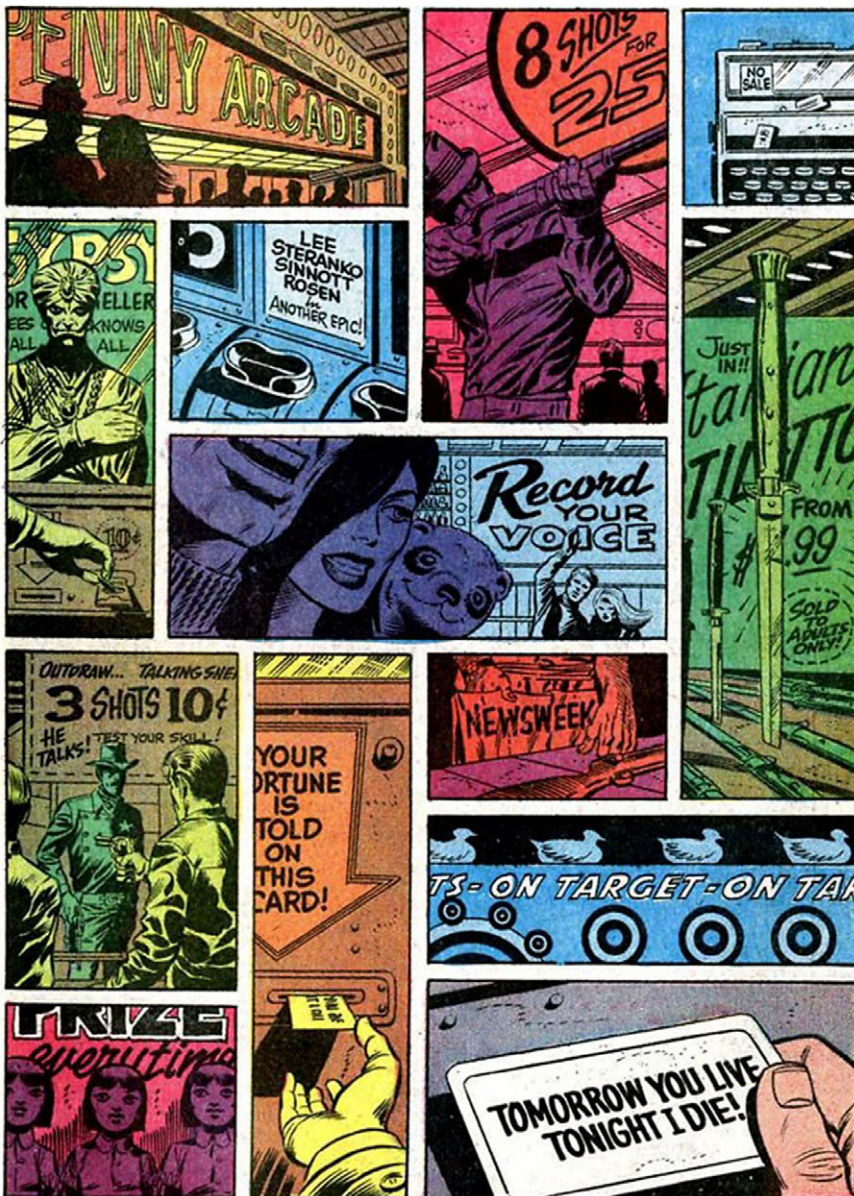
5. General Discursive and Diegetic Alignment and Misalignment

Prose-only works provide a further revealing contrast. Discursive and diegetic orders relate differently in comics from how they do in prose. In comics, a page as an arranged unit relates to what the page diegetically represents, and so the beginning and ending of the page are diegetic considerations. Alan Moore instructs comics writers that “all that’s needed to accomplish a good transition is to write in basic units of a single page, so that the reader’s action in turning the page becomes the beat in which I change scene without disturbing the rhythm of the story” (Moore, 2003: 17). In contrast, Dennis O’Neil suggests employing an opening page “hook” that poses “a question. A Character is reacting in horror to something the reader can’t see: What is it? A character is opening a box: What’s inside?” or “have a character about to open a door—the reader may want to see what’s on the other side” (O’Neil, 2001: 37). Instead of aligning page and scene so the two conclude in unison, the page break occurs mid-scene at a moment of high narrative tension, urging the viewer to turn the page quickly. Either comics approach presupposes a relationship between discursive and diegetic orders that does not exist in prose-only works, where the placement of diegetic content is unrelated to page considerations.

In prose-only works, Arranged (and therefore prototypically also Viewed) Order may align or misalign with Chronological and Narrated Orders. A sentence placed and read on the top half of a page may describe a diegetic event that takes place and is simultaneously narrated at a current moment within a narrative, and then another sentence placed and read in the bottom half of the same page may narrate a diegetically later event. If so, discursive (Arranged/Viewed) order and diegetic (Chronological/Narrated) order align. The diegetic significance of Arranged Order is nevertheless limited for the same reason that the diegetic significance of Viewed Order is limited. A line of text (words arranged in a horizontal beginning at the left margin and ending at the right margin) is determined by such things as font size and page width. The gutter (which in prose-only works is only the physical gap between bound page) and margins are not manipulated in relation to diegetic content.



In comics, discursive and diegetic orders commonly align. Setting aside global and vacillating attention and considering only images apprehended individually, Viewed Order may align with Chronological Order, which for images is necessarily aligned with Narrated Order. This is the norm that Groensteen overapplies, incorrectly presuming that spatially lower images necessarily depict temporally later diegetic events. Yet Groensteen does describe the typical diegetic temporality of works in the comics medium: viewers are conditioned to expect a spatially next discursive image to depict diegetic content that is temporally next too. So diegetic order (Chronological/Narrated) aligns with Arranged Order, which (to the degree possible given global and vacillating viewing within a page) partially aligns with Viewed Order.



The norm is ubiquitous. A page from Flowers' (2019) *Hot Comb* includes nine panels, eight that frame images and text and one that frames only text. The panels are narrated chronologically. The first establishes a general time period (Thursday evening), the second that the narrator is in a bar, the third where the bar is located, the fifth that the narrator is with a friend, the sixth and seventh that the narrator and narrator's friend are laughing, and the eighth and ninth that another friend with them is laughing too. Though all the accompanying text is written in present tense ("He's laughing"), the images have no verb tenses but each aligns with the present moment of narration. While some of the panels could be understood to occur simultaneously and the exact span of time is ambiguous, the combined images imply a range of minutes but probably not hours. Regardless, Chronological, Narrated, and Arranged Orders align, and, to the degree that a specific viewer follows the intended sequence and ignores global attention to the overall page, Viewed Order aligns too.

A comics page can also align orders in less common ways. In the opening page of *Captain America* #111 (March 1969), Jim Steranko draws 13 images depicting a penny arcade with no clear Arranged Order and therefore no implied Viewed Order (Steranko 2014: 213). "This page," writes Neil Cohn, "allows for no contiguous columns or rows of panels, and the colors of panels imply perceptual groupings between non-adjacent panels, thereby making a linear reading order difficult" (Cohn, 2013: 1). By "linear reading" order, Cohn means a Viewed Order inferable from the Arranged Order. The arrangement thwarts Z-path and N-path protocols, producing no commonly shared viewed path between viewers. Diegetically, the floorplan of an arcade also provides no single path, instead encouraging customers to wander and explore freely. As a result, events depicted in the images have no clear Chronological Order or Narrated Order. Steranko's arrangement reflects its diegetic content, aligning its intentionally ambiguous Arranged, Viewed, Chronological, and Narrated Orders.

6. General Discursive and Diegetic Misalignment

In prose-only works, flashbacks are paradigmatic examples of Chronological and Narrated Orders misaligning. Arranged Order also misaligns. In a flashback, spatially lower (and so typically later read) text may convey events that occurred diegetically earlier in the story. Nonetheless, that a flashback is occurring is signaled by a change in verb tense—from present to past or past to past perfect. By reading the text, the viewer understands that events are out of order. The same is true of comics that include text. In image-only comics, Chronological and Narrated Orders necessarily combine but then may misalign with either discursive orders.

In prose-only works, Arranged (and therefore prototypically Viewed) Order and diegetic orders may misalign because, unlike in comics, a page is an arranged unit not determined by what the page diegetically represents. Moreover the spatial position of words on a page of prose does not relate to either the Chronological or Narrated Orders of the words' content. A sentence typeset on the top half of a page might be written in present tense and describe an event occurring currently within the narrative. A later sentence typeset on the bottom half of the same page might be written in past tense and describe an event occurring previously within the narrative. The opposite arrangement is equally possible, but though discursive and diegetic orders would instead align in that case, the alignment would still have no significance because discursive orders are assumed and unchanging.

In comics, discursive and diegetic orders also may misalign. As with sentences of prose, image content may occur at any point within a diegetic timeline, regardless of the image's position on the page. While flashbacks are also common in comics, Moore and Gibbons (1987) misalign Arranged and diegetic orders to an atypical degree. *Watchmen* features a character who is simultaneously aware of multiple points of time. Analyzing the fourth chapter narrated by Doctor Manhattan, Ian Hague argues that the authors "give the reader the same power over the page as the nearly omniscient character of Doctor Manhattan has over time itself. The reader, like Manhattan, can see the past, present and future simultaneously in the page's surface, while at the same time being aware of the linear progression of the narrative through those temporal phases in the sequence" (Hague, 2014, 46).



The Arranged, Viewed, Chronological, and Narrated Orders of page 134 especially misalign. The first panel is set in 1981, the second moves 4 years forward to 1985, the third moves minutes backwards, the fourth moves weeks backwards, the fifth moves 26 years backwards to 1959, the sixth moves 26 years forward to minutes after the fourth panel, the seventh moves a moment forward, and the eighth panel moves 26 years backwards to 2 months before panel five. The

Chronological Order is: 8 (May 1959), 5 (July 1959), 1 (1981), 4 (1985), 6 (1985, minutes later), 7 (1985, the next moment), 3 (1985, months later), 2 (1985, minutes later). The Z-path inferable from Arranged Order instead aligns with Narrated Order, requiring text to reveal Chronological Order.

7. Arranged Misalignment

As discussed, Arranged Order in prose implies a Viewed Order that is typically followed, while in comics an Arranged Order's inferable path does not align with Viewed Order due to vacillating



attention to the page as a whole and to the images as a sequence. However, in some cases Viewed Order in comics can misalign with Arranged Order even when following sequence. In such cases, Viewed Order would likely begin by following a path inferred from Arranged Order, but as a viewer, discovering that the diegetic content of the images does not follow the Arranged Order's inferable path, searches for a Viewed Order that instead matches Chronological Order.

A one-page story from Tamaki's (2015) *SuperMutant Magic Academy* provides an example. Like Dr. Manhattan, the main character relates to time differently from typical characters: Everlasting Boy is immortal and experiences the passage of time at a pace that confuses the order of past events. The opening two panels of the 3x2 grid align Arranged, Chronological, and Narrated Orders, with Everlasting Boy sitting alone in the first and then with a bird-headed woman in the second. A viewer likely views the third panel next, before global awareness of the page draws attention to the panel below it, where an older version of the bird-woman sits with a cane—an indication that Narrated Order and the Arranged Order's inferable Z-path are not aligned with Chronological Order. Because Everlasting Boy is immortal, he appears stationary while the temporal leaps between panels might span minutes (in the first case), decades (based on the contrasting aging of the bird-woman), or centuries (based on the geological changes in the background). If now skimming to determine Chronological Order, a viewer may notice the bird-woman's cane in the third panel, implying that it diegetically follows the fifth, and then notice that Everlasting Boy's clothes are more deteriorated in the fourth panel than in the sixth. For the Narrated Order of 1, 2, 4, 5, 3, 6 to be perceived, Viewed Order likely adjusts to match it. Because it is not aligned with the Arranged Order's Z-path and requires a search for Chronological Order, Chronological Order ultimately realigns Viewed Order.

8. Full Misalignment

As discussed, Arranged and Viewed Orders align in prose-only works and misalign in comics. In comics, Arranged and Viewed Orders can also misalign with both Chronological and Narrated Orders, creating full misalignment.

Jousselin's (2020) *Mister Invincible: Local Hero* makes the implicit orders of a comics page explicit through the titular character's metafictional awareness of Arranged Order and ability to interact across multiple moments of Chronological and Narrated Orders. Like Dr. Manhattan and Everlasting Boy, Mister Invincible experiences diegetic time differently. Like McCloud's (1993) avatar in *Understanding Comics*, he merges the diegetic and discursive qualities.

In the collection's first episode, he sees beyond the frame of a first-row panel to the second row where two muggers are menacing a mother and child. The last panel of the first row includes motions lines indicating that he has leapt down to the last panel of the second row where he lands on and subdues one of the muggers. The other mugger draws a gun in the third row but then is struck by a bullet fired by Mister Invincible from the fourth row, which begins with his picking up the gun from the incapacitated mugger. The mother is appropriately bewildered. From the limits of her diegetic perspective, the hero materialized from overhead, and then a bullet materialized from below her feet but without disturbing the surface of the alley floor. Mister Invincible explains: "It's just the incredible magic of comics, ma'am."

His chest emblem is a comics layout (10 panel arranged in four rows), and the introductory panel of each one-page comic identifies him as "the one true comic book superhero!"

Like the viewer, Mr. Invincible is aware of the page as a whole and so Arranged Order, including the diegetic content of each panel. He is also able to break frames and move across panels and therefore across diegetic moments, creating interweaving Chronological and Narrated Orders that break the Arranged Order's inferable Z-path by inviting viewers to follow multiple, alternate Viewed Orders. While intuitively simple (Jousselin's target viewers are children), the effect is complex to analyze, especially as the interweaving produces multiple Chronological, Narrated, and Viewed Orders.

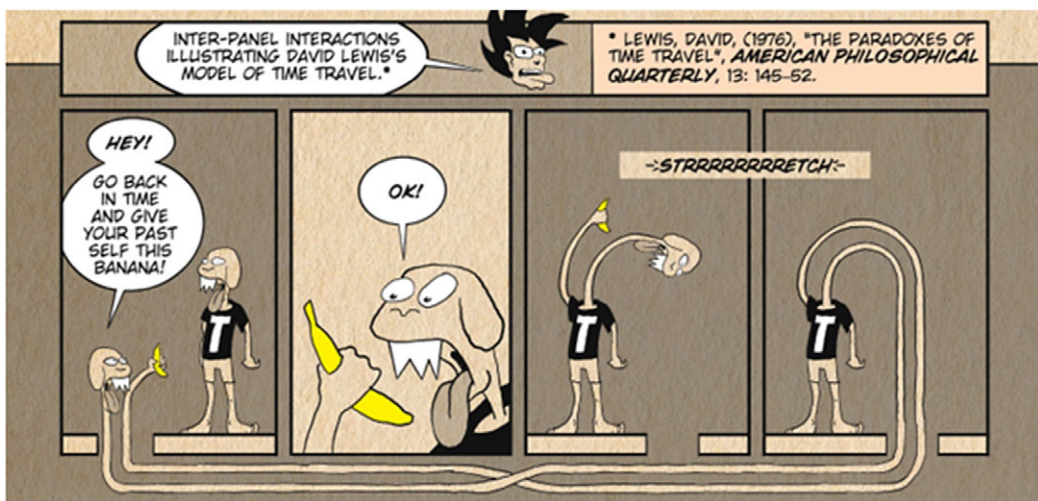


Chronologically, panels 2, 3, and 4 in the top row occur simultaneously with panels 5, 6 and 7 directly beneath them. In terms of Narrated Order, the second row would be a flashback—except panel 3 includes a dotted line and arrow connecting it to panel 6 as Mister Invincible peers down the page. If viewers follows the arrow, Viewed Order moves from panel 3 to 6. Similarly, panel 7 and 4 are connected by motion lines indicating that he leapt down a row, effectively turning the two panels into a single image. A bullet trajectory lines similarly connects panels 9 and 12, likely drawing

viewer attention to the lower panel rather than to the next in Arranged Order. Another bullet trajectory line connects panels 12 and 13, normally an unremarkable fact, but here a viewer must decide whether to follow the trajectory or return to the unviewed panel 10 of the previous row. While any individual viewer is likely to explore multiple Viewed Orders, a like one is 1, 2, 3, 7, 5, 4, 6, 8, 9, 12, 13, 10, 11, and 14.

For Tamaki, the Viewed Order emerged as a result of determining Chronological Order, but in this case it is unclear whether the two can fully align. Like Viewed Order, there are arguable multiple Narrated Orders—in part because there are multiple Chronological Orders linked to different characters' perspectives. While the mother's temporal awareness is standard, each Mister Invincible exists separately in time and views and understands events from that position, creating variant Chronological Orders. Moreover, the set of Mister Invincibles is aware of all discursive spatial points and all diegetic temporal points simultaneously, in a sense eliminating the temporal notions of Chronological and Narrated Orders by understanding those order spatially and so atemporally.

Mandik (2023) explores a similar conclusion in a recent short comic when drawing a character breaking frame in a far-right panel by extending their neck and arm into a previous far-left panel in the same row.



Because the Arranged Order of left and right corresponds with the Chronological Order of before and after, the character interacts with an earlier depiction of himself by appearing in different discursive spaces that represent different diegetic moments. Mandik terms the technique “inter-panel interactions,” which, since panels are discursive and the interactions are diegetic, encapsulates the defining combination of diegetic and discursive qualities. More broadly, the approach might be called a “discursive diegesis”—which is a comics-based form of metafiction that McCloud demonstrated in his temporal analysis of a comics page. Though the other examples explored above are not metafictional, they also demonstrate the complex interactions of discursive and diegetic qualities on comics pages—interactions clarified by our set of four orders.

9. Next in Order

If we are right, then McCloud and Groensteen were onto something in their analyses though fell short because they failed to distinguish Arranged, Viewed, Chronological, and Narrated Orders. At

the same time, because we are the first to distinguish them, we recognize that our analysis likely falls short and definitely raises questions that it does not answer. Taking such questions as avenues for future research, in closing we mention some relevant for the philosophy of comics, aesthetics and the philosophy of language more generally, and philosophy more broadly.

Regarding the philosophy of comics, we claimed that Arranged Order is the only spatial arrangement. Can Viewed Order be both temporal (reading one panel at a time) and spatial (read some panels as above and others as below)? Also, we understood those orders relative to a page. How useful it would be to extend the four orders to multiple pages—and how should we incorporate into those orders the ability of viewers to flip between pages? Further, we discussed only Arranged, Viewed, Chronological, and Narrated Orders. Are there other formal orders or other alignments or misalignments of them that we failed to notice? Finally, we regarded these four orders as only descriptive. Arranged Order is the spatial arrangement of images relative to one another within a page; Viewed Order, the temporal arrangement of images relative to one another on the page when viewed; Chronological Order, the temporal arrangement of events represented relative to one another as occurring in the represented world; and Narrated Order, the temporal arrangement of events represented relative to one another as presented. Does order each also have a prescriptive correlate? That would be, respectively, the order that images should have been arranged in, should have been viewed in, should have represented events in, and should have been presented in.

Regarding aesthetics and the philosophy of language more generally, we suggested how prose-only novels differ from comics based on these orders, and Groensteen discusses, but confuses, how film differs too. How do Arranged, Viewed, Chronological, and Narrated Orders (in descriptive form, descriptive form, or both) apply to other art-forms and modes of expression? Would they illuminate the nature of plays, ballets, art exhibits, etc., and, if so, do those orders align or misalign in the same or different ways? And can they make sense of more traditional works of language that unlike novels are not fiction, e.g., scientific articles, literary essays, religious texts, or philosophical treatises?

Finally, regarding philosophy more broadly, Viewed Order, which is (at least) temporal, depends on Arranged, which is spatial. Chronological, which is also temporal, depends on Viewed, and Narrated, which is temporal as well, depends on Chronological. Does that suggest some general primacy of the spatial, in storytelling or otherwise, or the existence of a more fundamental spatiotemporal order, in storytelling or otherwise? As well, though Arranged and Chronological Orders are both objective in the sense of not depending on subjects' viewing or narrating, subjects nevertheless are the ones arranging and reading (and writing) them. What would (or could) it mean for there to be truly objective orders generally? Lastly, comics are artifacts and in that sense distinct from naturally occurring objects, yet the former are created out of the latter and the latter can even in their natural states be used to tell stories. Besides the spatial and temporal, when it comes to communication does the subjective and objective distinction hold up?

Acknowledgments. We would like to thank attendees of PHIL COMIC CON and especially its organizer, Sam Cowling, for useful feedback, and Denison University and the *Canadian Journal of Philosophy* for making the conference possible.

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Works Cited

- Chute, H. (2010). *Graphic women: Life narrative and contemporary comics*. Columbia University Press.
- Cohn, N. (2013). Navigating comics: An empirical and theoretical approach to strategies of reading comic page layouts. *Frontiers in Psychology*, 4, 186. <https://doi.org/10.3389/fpsyg.2013.00186>.
- Currie, G. (2004). *Arts and minds*. Oxford University Press.
- Flowers, E. (writer-artist) (2019). *Hot Comb*. Drawn and Quarterly.
- Gavaler, C., & Goldberg, N. (2021). Perceiving images and styles. *Journal for the Philosophy of Language, Mind, and the Arts*, 2, 131–146. <https://doi.org/10.30687/Jolma/2723-9640/2021/01/008>.
- Goldberg, N., & Gavaler, C. (2022). *Revising fiction, fact, and faith: A philosophical account*. Routledge. <https://doi.org/10.4324/9781003051602>.
- Groensteen, T. (2007). *System of comics*. University Press of Mississippi.
- Groensteen, T. (2010). The monstrator, the recitant and the shadow of the narrator. *European Comic Art*, 3, 1–21.
- Hague, I. (2014). *Comics and the senses: A multisensory approach to comics and graphic novels*. Routledge.
- Jousselin, P. (writer-artist) (2020). *Mister invincible: Local hero*. Magnetic Press.
- Mandik, P. (2023). *Philosophy Through Comics*. *Daily Nous*. <https://dailynous.com/2023/07/25/philosophy-through-comics-guest-post/> (accessed 26 November 2023).
- McCloud, S. (writer-artist) (1993). *Understanding comics: The invisible art*. HarperCollins.
- McCloud, S. (writer-artist). (2006). *Making comics: Storytelling secrets of comics, manga and graphic novels*. William Morrow.
- Mikkonen, K., & Lautenbacher, O. P. (2019). “Global attention in reading comics: Eye-movement indications of interplay between narrative content and layout. *ImageText*, 10(2). <https://imagetextjournal.com/global-attention-in-reading-comics> (accessed 26 November 2023).
- Moore, A. (2003). *Alan moore’s writing for comics*. Avatar Press.
- Moore, A. (writer), & Gibbons, D. (artist). (1987). *Watchmen*. DC Comics.
- O’Neil, D. (2001). *The DC comics guide to writing comics*. Watson-Guptill.
- Steranko, J. (writer-artist) (2014). *Marvel masterworks: Captain America*. Marvel Comics.
- Tamaki, J. (writer-artist) (2015). *SuperMutant magic academy*. Drawn and Quarterly.
- Zacks, J. M., & Tyversky, B. (2001). Event structure in perception and conception. *Psychological Bulletin*, 127, 3–21.