

# Cohesion in Comics and Graphic Novels: An Empirical Comparative Approach to Transmedia Adaptation in *City of Glass*

CHIAO-I TSENG\* AND JOHN A. BATEMAN

**Abstract** The effective study of transmedia adaptation requires descriptions that allow us to track how changes in media may correlate with both similarities and differences across medial realisations of a work. To the extent that such description can be made systematic and reliable, it becomes possible to apply a variety of empirical methods for revealing reoccurring patterns of medial influence. In this article, we set out how a transmedially extended notion of cohesion offers a level of description of precisely this kind. Taking Paul Auster's novel *City of Glass* (1985) and its adaptation in graphic novel form by Karasik and Mazzuchelli (2004) as an example, the article offers a cross-media cohesion analysis that demonstrates how the mutually intertwining thematic shifts in the novel and its graphic novel adaptation differ. We argue that this is largely due to the affordances of their respective medium and apply this result to suggest how empirical findings on narrative involvement may be related more firmly to properties of the artifacts analysed. This opens up a path for the design of more focused empirical investigations of how adaptation may impact on readers' processes of narrative perception.

**Keywords:** *Comics, visual narrative, cohesion, empirical analysis, transmedia comparison, complex narratives.*

## INTRODUCTION

In recent decades, scholars have endeavored to uncover how the act of adaptation gives rise to complex transformative processes of diverse kinds—as Hassler-Forest and Nicklas (1) state in the opening of their recent book on the politics of adaptation, 'adaptation is all about change: from one work of art to the next'. Investigations of transformative processes in adaptation, particularly in cross-media adaptation, must confront long-debated issues such as the perennial discussion of medium-specificity and, more recently, the phenomenon of media convergence and its political and ideological consequences (Jenkins; Hassler-Forest and Nicklas). Any effective approach to transmedia adaptation will need to be able to compare what is diminished or added during, or by, this process. Making such comparisons explicit can be expected to support more fine-grained explorations of how media changes bring consequences for the interactions of textual mechanisms, media perception, and ideological involvement (Hassler-Forest and Nicklas 2).

However, the task of systematically relating textual, perceptual, and ideological analysis poses considerable challenges for adaptation studies. Changes and convergences

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of media clearly trigger textual repurposing and affect readers'/viewers' perceptual engagement, but there are still insufficient analytical methods available for interrogating such processes empirically. Discussions are, as a consequence, either limited to detailed characterizations of specific cases or maintained at a level of theoretical or philosophical abstraction that, however insightful, does not support engagement with broader bodies of work. This situation compromises even the explanations or accounts offered of single cases or works because the degree of individual variation that is actually possible is not known. Explanations of individual behavior cannot be sensibly pursued without a broader understanding of general mechanisms and the consequences of those mechanisms for reception.

Achieving more clarity on these issues is then the primary motivation for pursuing empirical studies. However, empirical methods rely on the development of reliable and repeatable ways of describing their objects of analysis so that comparisons can be drawn and overly individual sources of variation factored out. Perceptual studies, the focus of this special issue, make even more stringent demands in this regard. When engaging with naturally occurring materials as 'ecological stimuli', that is, materials not artificially constrained for experimental purposes (Willems 3), it is well established that variation both within and between subjects will typically be sufficiently high that obtaining statistically significant results is by no means straightforward. Moreover, despite a growing awareness of the beneficial role that perception studies may play in unraveling the intricacies of the reception of aesthetic artifacts and performances, the quest for forms of description capable of supporting empirical analysis is in aesthetics regarded quite critically. Such criticism is often justified and reflects a profound general methodological problem faced whenever questions of aesthetics are to be approached more analytically: abstracting technical features of a work so that they may be quantified for empirical study runs the risk of destroying the very properties of a work that are responsible for its aesthetic reception. This is then the challenge that the current paper takes up. On the one hand, reliable and robust characterizations of data need to be developed so that reoccurring phenomena can be isolated in sufficient quantities that their likely consequences for reception can be pinpointed; on the other hand, those characterizations need themselves to be sufficiently 'abstract', or meaningful, as to engage with issues of aesthetic concern.

The framework for the analysis of complex semiotic artifacts that we introduce in this paper aims precisely at meeting these requirements. Drawing primarily on discourse and social semiotic theories, this framework will be argued to provide an effective descriptive tool for analyzing how narrative interpretation is guided and signaled by discourse mechanisms that operate beyond the confines of single media. These mechanisms are seen as responsible for guiding the construction of discourse structures which in turn function to reflect certain patterns of ideological engagement. We suggest that this framework is particularly suitable for investigating issues of cross-media adaptation because of its linking of, on the one hand, fine-grained technical details that may be reliably located in the objects of analysis and, on the other, more abstract narratively organized patterns.

A considerable body of previous research has employed semiotic and linguistic categories to establish schemes for the description of the formal and rhetorical devices

deployed in comics and graphic novels (Varnum and Gibbons; Saraceni; Groensteen; Cohn; Baetens; Cohn). These vary in terms of both breadth and robustness. Although the work of Cohn is also focused specifically on supporting empirical, and even experimental, methods, other approaches have tended to be more discursive and interpretative. The comics medium therefore still presents challenges for reliable schemes of analysis—especially when the artifacts addressed are narratively and structurally complex.

The framework we employ centers on a transmedial extension of the discourse principles of cohesion, a concept developed originally for language (Halliday and Hasan) and subsequently extended for dynamic audiovisual media by Tseng (Tseng). Here, we show further not only that this may serve as a general tool for static visual narrative of the kind found in comics and graphic novels, but also that it provides an appropriate level of abstraction for cross-media comparisons of the kind needed in adaptation research. Cohesion allows a systematic description appropriate for empirical investigation of how readers comprehend the presentation and tracking of ‘dominant narrative elements’, such as characters, objects, and settings, abstracted beyond both the text-image distinction and panel frames. From this vantage point, it becomes possible to compare and contrast the narrative strategies adopted in different media with respect to quite specific narrative goals—all aspects commonly held to be decisive in aesthetic reception.

Although there have also been other attempts to apply notions of cohesion in comics, these have tended to restrict their accounts to specific components of cohesion and have not explicitly explored transmedial phenomena. The proposal of Stainbrook (Stainbrook), for example, focuses almost exclusively on sequential relations between panels in the style suggested by McCloud (McCloud). In contrast, the account of cohesion we set out here examines a broader selection of the formal devices by which reoccurrence, repetitions and modifications are signaled in order to obtain maximum leverage on the task of transmedia analysis.

We begin our discussion with an introduction to the concept of cohesion, demonstrating its potential for articulating finer-grained theoretical accounts of narrative construction. We will show how descriptions of cohesion that anchor narrative construction in the operation of concrete discourse mechanisms can help unpack the narrative complexity of works that involve more cognitive load for their readers’ narrative interpretation processes. To illustrate the method at work, we take a challenging case: Paul Auster’s *City of Glass* (1985) and Karasik and Mazzuchelli’s graphic novel adaptation (2004). This selection serves several purposes simultaneously. First, the novel *City of Glass* is a narratively complex work, addressing issues of identity, time, social and familial relationships, the nature of fiction, and more: it thus clearly can be expected to place significant cognitive load on its readers. Second, the graphic novel adaptation offers a transmediated retelling of (aspects of) the novel and so may be sensibly hypothesized to be thematically anchored in a similar body of narrative concerns. This relates the two works at a more abstract, narrative level of description, while still demanding that potentially media-specific aspects of that narration be made accessible to study. Finding potential areas of commonality of this kind is important methodologically when triangulating across media differences and serves to bring differences in narrative complexity into particular relief.

Our specific goal for the current paper is then to show that, despite the complexity and differences inherent to the works addressed, the same general mechanisms and methods of cohesion apply, thus furthering reliable and robust comparative description. No aspect of the descriptive framework employed is specific to these works, however, either individually or as a pair in comparison. Our discussion consequently demonstrates the generality of the method, not only across distinct instances of narrative but across media, that is, transmedially, as well. Moreover, the different contexts of the works selected—in the case of the novel, as one component of a trilogy and, in the case of the graphic novel, as a self-sufficient work for a rather specific audience—may give rise to differences that we might wish, as analysts, to track across their specific medial realizations. In this respect as well, we will argue that the ability to produce comparable descriptions of narrative strategies reliably and across media is an essential prerequisite for empirical study and particularly for studies involving perception.

#### TRACKING ELEMENTS BEYOND PANEL AND BEYOND TEXT-IMAGE DISTINCTIONS

In this section, we introduce our general framework for characterizing cohesion in comics. The framework identifies formal features of the medium that may serve as explicit hypotheses concerning how readers are guided along particular paths of meaning construction as the visual narrative unfolds. In the context of film research, the theoretical approach of cohesion in moving images (Tseng) has provided a powerful discourse semantics for examining cohesive ties between film elements within and across images; this has already been correlated with particular patterns of narrative complexity in film (cf. Tseng and Bateman; Bateman and Tseng) and so it is a logical next step to consider this for other visual forms of narrative as well.

The cross-media cohesion framework extends the linguistic cohesion system (Halliday and Hasa; Martin) in order to characterize forms of cohesion that operate both within and across expressive ‘modes’ (Bateman). Considered at its most general, cohesion classifies the ‘reoccurrence’ relations by which ‘texts’ indicate their internal connectivity—standard examples would be sequences formed by introductions of characters with full reference forms, for example, ‘Quinn’, followed by reduced anaphoric references, for example, ‘he’, ‘him’, ‘the man’, etc. Cohesion covers several distinct kinds of relationships that together offer a useful characterization of the ‘texture’ of textual artifacts.

Just as is the case for the linguistic cohesion system, cross-media accounts of cohesion need to define both the types of relations available and their realization in specific presentational patterns that permit their identification. In Tseng’s (Tseng) development of cohesion for film, for example, the kinds of reoccurrence relations defined realize the presentation of people, places, and things (characters, settings and objects) as well as the filmic resources that allow the reappearance of these narrative elements to be tracked over the course of a film. Performing a cohesion analysis for a segment of film then produces a cohesive structure that picks out how relevant people, places and things are actually tracked across a narrative, usually bringing into relief the textually constructed unity of the particular filmic text.

This framework can be applied equally to comics analysis. One motivation for this is the intuition that there is an area of semiotic work—that of introducing and tracking

relevant entities—that is shared by (visual) narratives across diverse media of expression. This suggests that the analytic method provided by the multimodally extended version of cohesion may support systematic transmedia comparison with respect to how this specific narrative ‘work’ is undertaken. This then also offers ways of effectively differentiating between the possibilities offered by differing media.

Figure 1 sets out the framework for cohesion as formulated specifically for comics and graphic novels. It is modeled as a so-called system network of the kind used extensively for linguistic description in the theory of systemic functional linguistics (Halliday and Matthiessen). System networks show the abstract ‘choices’ available for language users drawn from the meaning potential of their language. The system network in Figure 1 correspondingly shows the functional potential for cueing identities of characters, objects and settings as a comic unfolds, whether within or across panels, and regardless of whether this is done verbally or visually.

System networks thus take on two closely related tasks: the first is to characterize inter-relationships and dependencies among choices and is thus similar to many approaches to classification; the second is to describe the structural consequences of any choices made. The former captures the work of the paradigmatic axis; the latter the syntagmatic axis. Following the lead of Saussure and, more directly, Hjelmslev (Hjelmslev), both axes are considered essential but separate components for any complete description. The kinds of structures associated with these options in the current case consist of cohesive chains holding with respect to particular cohesively relevant discourse entities of visual narratives, such as characters in activities, particular settings, objects and so on.

The notation used in networks of this kind is as follows. Right-facing square brackets connect contrasting and mutually exclusive options together into ‘systems of choice’,

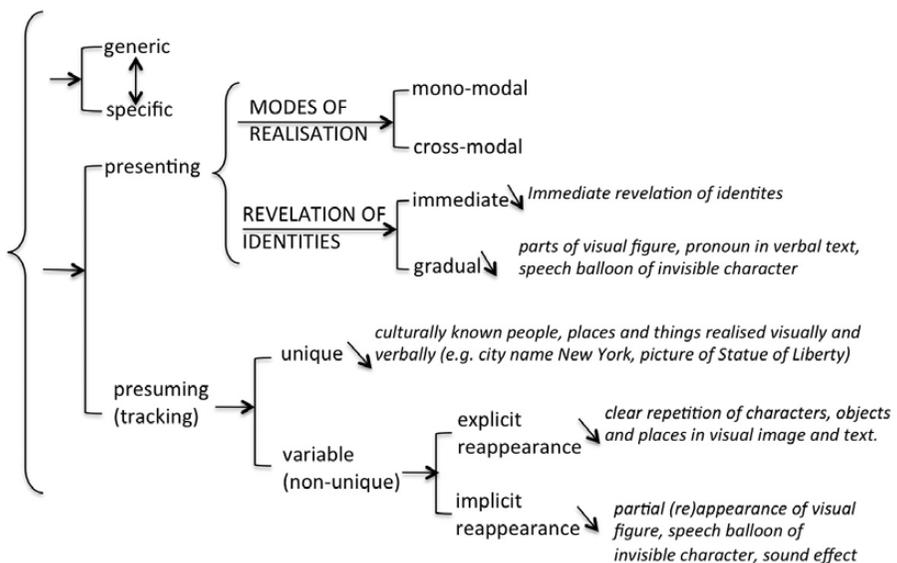


Figure 1. The cohesion system developed for comics and graphic novels.

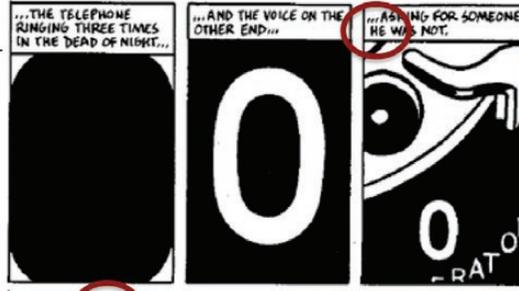
while right-facing curly brackets group systems of choice into ‘parallel’ options that must all be considering as the network is used. The most developed system rooted in the leftmost large curly bracket, for instance, offers a choice between [presenting]—that is, choices for introducing an identity for the first time—and [presuming]—that is, resources for tracking a previously presented identity; only one of these two features may be selected for the classification of a single cohesive relation. Systems are generally identified either in terms of the choice itself, that is, [presenting/presuming], or in terms of an explicit name given for reference, generally written in small capitals.

The leftmost curly bracket offers an example of simultaneously available systems. In this case, the two systems [generic/specific] and [presenting/presuming] are ‘simultaneous’, requiring that choices be made from the features presented in each of the two systems. This means that one of the following four feature combinations must be selected: (1) [presenting] + [generic]: for example, introducing a general group of children for the first time, (2) [presenting] + [specific]: for example, introducing a specific character for the first time, (3) [presuming] + [generic]: for example, re-identifying a general group of children which appeared previously and (4) [presuming] + [specific]: for example, re-identifying a main character. Analogously, one option from each of the named systems of modes of realization and revelation of identities needs to be selected. In general, networks of systems may employ quite extensive cross-classification.

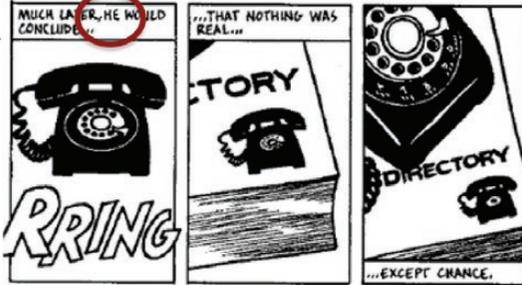
The other descriptive task of such networks, defining the form of realization of each feature, is represented by the texts shown in italics following tilted arrows. For instance, the feature of [gradual] revelation of identities following on from the system of [presenting] in the figure is realized by parts of visual figure, pronoun in verbal text, speech balloon of an invisible character. We will exemplify each feature below, but for now it is sufficient to point out that this form of realization, anchored in the affordances of the comics medium, is specified following the functional choices made throughout the system network.

We will illustrate the use of this classification network for analysis by turning to one of the principal discourse entities that can be found in the opening two pages of the graphic novel version of *City of Glass*, the main character Quinn; these pages are displayed in Figures 2 and 3 (left). In panel 3 in the first figure, counting panels from left-to-right and top-to-bottom, the identity of the main character is presented for the first time as ‘HE’ in the caption text (before his full identity is revealed as ‘Quinn’ in the first panel on page 3: cf. Figure 3) and thus it is appropriate to choose the feature [presenting] from the system [presenting/presuming] to describe this. This choice leads on to the simultaneous systems modes of realisation and revelation of identities, that is, the manner of the element’s presentation in the narrative. For the former, Quinn is identified only verbally and so the feature [mono-modal] is selected. For the latter, the pronoun ‘HE’ indicating only that some male character realizes the choice of [gradual] rather than [immediate]. The option [immediate] would classify a presentation strategy whereby the identity of some character/object/place is completely revealed at the outset of the presentation and so does not apply here. Examples specifically of the [immediate] presentation strategy are when the face of one character is clearly seen or when the name of a character is revealed (e.g., using ‘Quinn’ instead of ‘HE’).

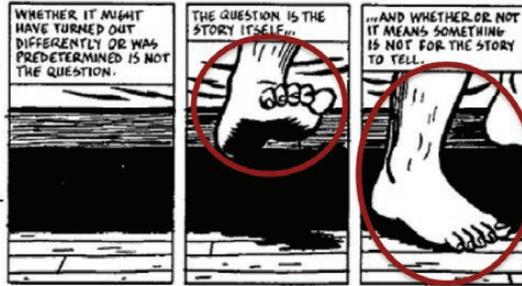
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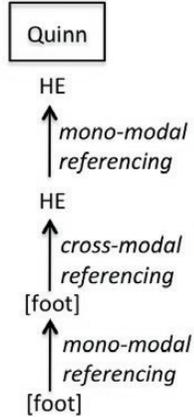
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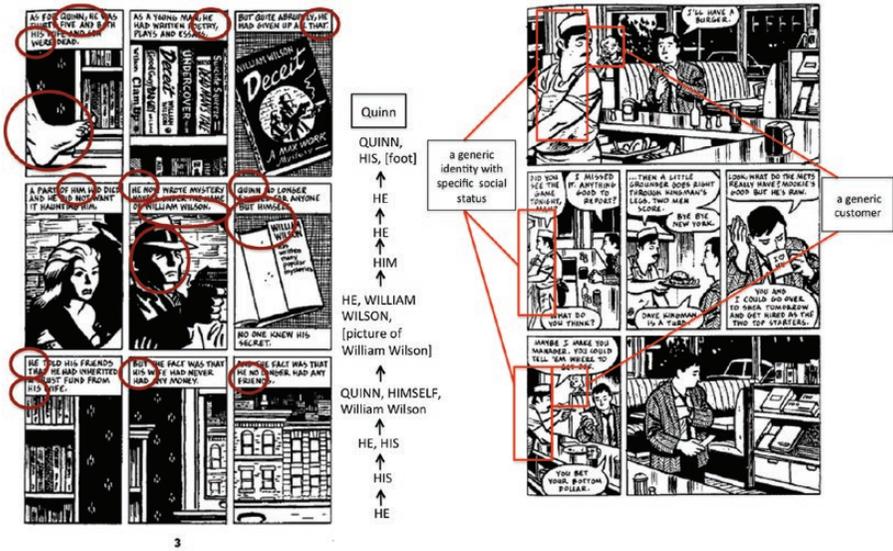


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**Figure 2.** Presenting and tracking the main character ‘Quinn’ showing instantiation of features in the system networks in identity tracking and the corresponding cohesive chain. Italic texts are the choices instantiated from the comic cohesion system. Capital letters are verbal texts and descriptions in square brackets are visual images (Karasik and Mazzuchelli 2). Figure details: reproduced/Karasik and Mazzuchelli (2004) *City of Glass*, Picador, with permission from Carol Mann Literary.

Following the logic of the network, a further choice must also be made for Quinn in the current panel from the system of [generic/specific]. The features available here refer to the degree of generality of identities of characters, objects and settings. The arrow connecting the features of this system indicate that the choice is modeled as a continuum rather than as contrasting options. Realizing generic and specific identities is not an either/or choice, but a range of relative degrees of generality, varying from the most general characters, objects and settings to specific individual identities. The generality of identities can be manipulated in visual narratives by several strategies. For instance, a character wearing certain visual attributes that represent a specific social type in a viewer’s culture is regarded as less generic than any character without such social



**Figure 3.** Left: Continuing the tracking of the main character ‘Quinn’ (Karasik and Mazzuchelli 3). Right: Different degrees of generic/specific characters, the woman in the background in the top and bottom right panels, the cook and Quinn (Karasik and Mazzuchelli 35). Figure details: reproduced/ Karasik and Mazzuchelli (2004) *City of Glass*, Picador, with permission from Carol Mann Literary.

cultural cues. Figure 3 shows cases in which the contrast of three different degrees of generic/specific identities can be found—the specific main character Quinn, the more generic character of a social type, the cook, and a generic woman in the restaurant in the first and bottom left panels. In this example, the main character is introduced as ‘he’, a specific male character rather than a generic man, but he is made more specific still when his name and pseudonym ‘Quinn’ and ‘William Wilson’ are revealed on page 2. A generic character, although unnamed or unlabeled in the narrative, can also be gradually ‘specified’ when he or she repeatedly appears and is recognized by reader-viewers as a certain specific character. In silent graphic novels such as Shaun Tan’s *Arrival* or Thomas Ott’s thrillers, for example, *Dead End*, *The Number 73304-23-4153-6-96-8*, main characters are never given specific names but are made specific through their reappearances across the novels.

This progression of cohesive strategies across the visual narrative constitutes an essential part of the analysis. The cohesive strategies adopted for an element are collected together in order to build cohesive chains. Such chains are formed whenever particular elements are placed repeatedly in sequences of cohesive ties over the unfolding of a text. Whereas all elements in a textual artifact typically enter into numerous cohesive links with other elements, it has been observed in work on language that it is the participation of elements in chains of connections that is textually significant rather than individual elements alone. Although several distinct kinds of cohesive chains are active within visual narratives, we focus here on tracking identities of characters, objects and places; these chains are accordingly termed identity chains. We will now describe the

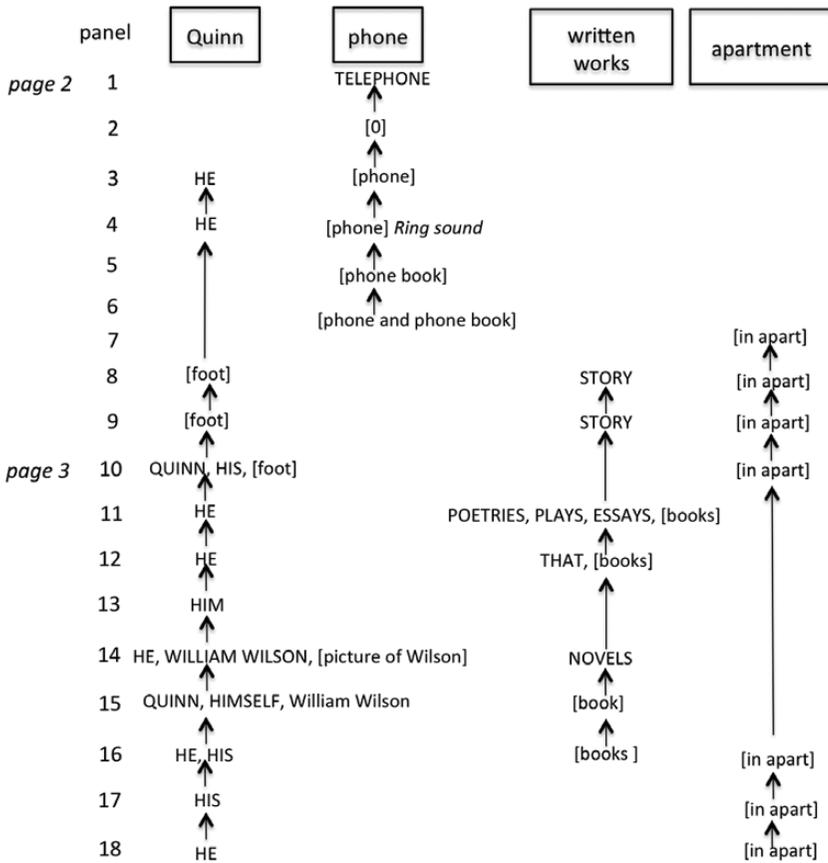
technique of constructing identity chains for comics in detail so that the analyses that follow are clear.

A general impression of how cohesive chains are formed was already provided visually in Figures 2 and 3; we saw how each element presenting and tracking the main character Quinn was circled in both the visual and verbal components of the text. These elements are linked cross-modally throughout the two pages. For Quinn, we consequently have the following progression of cohesive links: first, in panel 3 his presentation is realized through the choices of [specific], [mono-modal] and [gradual revelation] from the cohesion system as just described. Then, in panel 4, his identity is presumed/tracked (rather than presented) again in text as 'he' and then cross-modally tracked again, in panels 8 and 9 at the bottom of page 1, as a visual figure, his foot. For the identity tracking in panel 4, the two choices from the network that express these presuming/tracking cases are: (1) [specific identity] from the system of [generic/specific] because of the same element 'he'; and (2) [explicit reappearance] under the [unique/non-unique(variable)] and [explicit/implicit] systems because his identity is, first, not a [unique] identity that needs to be widely known in the viewer's culture, for example, a president or other public figure, and, second, realized explicitly because the reader can relate the 'he' in panel 4 back to the same 'he' in panel 3. For the identity tracking in panel 8, the two features selected are: (1) [specific], because the foot is linked to the specific main character, but (2) [implicit reappearance] because only a part of the visual image of the character is revealed. Other forms of the feature [implicit reappearance] could be realized, for example, as sound effects or speech balloons of an invisible object or character.

We represented sets of cohesive strategies of this kind graphically on the right-hand side of Figure 2 above; the maintenance of the identity chain is shown using arrows that link successive elements back to previous elements of the same chain. This shows the ties built for Quinn across the page, thereby tracking the discourse strategies used for identifying the character. Referring to the figure, we can also see that the tracking of Quinn's identity is realized cross-modally, for example, the image of Quinn's foot in panel 8 referring back to 'HE' in a verbal text in panel 4.

This trait of cross-modal referencing is an important property of the cohesive framework of visual narratives that distinguishes it sharply from that of the language system. That is, here a character, an object or a particular setting has the potential to be presented or reappear simultaneously or successively in different modes. Cross-modality also shows the different perspective taken by the framework of cohesion in comics when compared with the categories of text-image relations put forward by Cohn (Cohn). The method of cohesion does not distinguish the two modes at the outset and then investigate their relation; on the contrary, the present analytical perspective treats any comics as a multimodal text and examines how certain discourse elements are cross-modally realized (e.g., here identities of narrative elements).

Drawing on the concepts and features of cohesive chains we have described to this point, Figure 4 shows the overall cohesive chain of the dominant narrative elements across the first two pages of the graphic novel. The first and longest chain is the identity chain of Quinn, who is thereby identified analytically as the main character on the basis of his reoccurrence in these cohesive chains. This is then the abstract analytical



**Figure 4.** Cohesive chains of the dominant narrative elements from pages 2 and 3 of Karasik and Mazzucchelli (2004). Capital letters are verbal texts and descriptions in square brackets are visual images.

structure constructed from the elements circled and interlinked in Figures 2 and 3 (left). The chain reflects not only how the main character is presented and tracked cross-modally throughout the two pages, but also how some panels use more than three cross-modal elements to portray Quinn’s identity, for example, panels 10 and 14. This kind of chain construction in the beginning of a visual narrative is transmedially comparable to the chain patterns in other character-centered/subjective types of visual narratives, such as have been found, for example, in our previous work on the beginnings of examples drawn from film noir (e.g., Tseng 85–107). We return to further cases of cross-medial correlations below.

Three other prominent narrative elements can be identified according to their participation in chains in these first pages of the graphic novel: a telephone, written works, and the setting of Quinn’s apartment. Each of these participates in a cohesive chain made up of a sequence of cohesive relations just as we have seen for the Quinn chain.

The object chain of the telephone is first introduced cross-modally and immediately in panel 1 with the verbal text TELEPHONE with the black image, which is a close-up

of Quinn's telephone. The visual presentation of the telephone employs the dynamism of a gradual 'zoom-out' portrayed across four panels. In panel 4, the telephone is also cross-modally realized with its sound effect. The chain pattern shows that there is a transition between the object chains from panel 6 and panel 8: the ending of the 'telephone' chain is followed by the opening of the 'written work' chain. The chain pattern as such often shows how different kinds of transitions are constructed. In the present example, the explicit transition of the two object chains signals the dramaturgical thematic change. The center of attention changes from Quinn's ringing phone to Quinn's stories and written works.

The second, 'written works' chain is established by a few similar cross-modal objects—POETS, ESSAYS, PLAYS, and the image of books, which all fall broadly into the same object category of written works. In other words, the relation that holds these elements is not strictly co-reference but another type of cohesive mechanism, comprising a semantic relation that realizes ties of similarity. Drawing on this linguistic notion, a semantic relation is established through two types of similarity ties: meronymy, that is, a part-whole relation between two elements, and hyponymy, which refers to elements under a common broader classification. In the present case, the relation between POET, ESSAYS, PLAYS are co-hyponyms, considered as falling under the same classification of written work, while the relation between STORY and the images of books denotes a part-whole relation.

Finally, the third chain of the setting of Quinn's apartment is introduced in panel 7 with partial, gradual revelation because the floor (and perhaps the bed) first suggests the setting to be someone's apartment. The specific identity of the setting is fully revealed from panel 8 to panel 10 when Quinn gets up from the bed and walks barefoot towards the living room contextualized by the books, shelf, and wall paper.

We have termed the elements identified so far as 'prominent' narrative elements. Here it is crucial to note that this selection is not made on the basis of a prior interpretation of the text and its narrative but is solely based on the participation (or not) of elements within cohesive chains. Many more elements could have been mentioned but these do not participate in further chains and so may be formally removed from consideration. Thus, other narrative elements that might have potentially been relevant simply by virtue of their presence in some panel fall away at this point because they do not participate in chains. In this way the textual focus on participation in cohesive chains serves as a 'self-selection' device. Any elements that do not reappear in chains are not being presented by the narrative as contributing textually to the narrative's development (Tseng).

The overall chain pattern in the beginning two pages of *City of Glass* reveals an important dimension of the configuration of narrative flow—the two pages center substantially on the main character Quinn in his apartment and his involvement with different thematic objects. Chain patterns of this kind are not realized solely in complex narratives, however; similar patterns have been found in both texts and film regardless of their complexity (Tseng 114). This already suggests a significant contribution of cohesive analysis: similar deployments of cohesive relation resources guiding narrative interpretation operate beyond the confines of individual media. This perspective will be strengthened further when we conduct a broader transmedia cohesive

analysis of both the graphic novel variant of *City of Glass* and the original novel in the sections following.

## COHESIVE STRUCTURES IN THE BEGINNING OF THE GRAPHIC NOVEL *CITY OF GLASS*

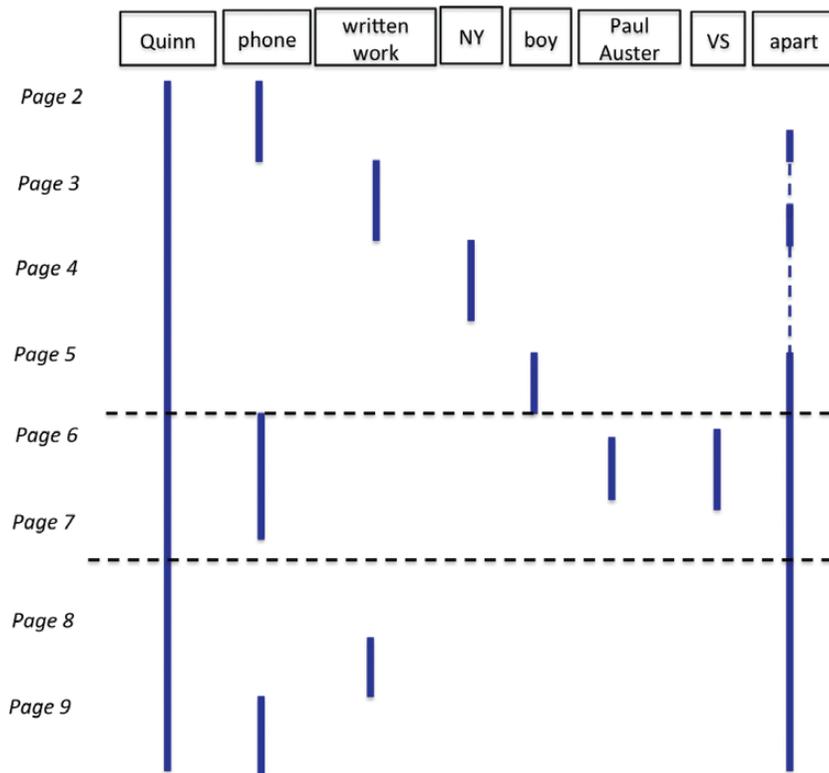
In this section, we address the issue raised as one main task of this paper: to show how the deployment of cohesive relation resources can guide narrative interpretation and offers an empirical basis for transmedial comparison. We will do this by employing the cohesion framework to analyze the opening pages of the graphic novel *City of Glass* and then comparing the pattern of cohesive chains to that in the original novel. Although space precludes our setting out this analysis at the same level of detail as that illustrated for the first two pages, the procedure followed to produce cohesive chains remains identical across all the pages analyzed.

The story of the graphic novel variant of *City of Glass* centers on Daniel Quinn, a writer who uses the pseudonym William Wilson. The story starts with a narrator describing Quinn's intention to write as his attempt to evade his grief, caused by the death of his wife and his son. On a succession of evenings, late at night, the phone rings. The caller wants to talk to a private detective called Paul Auster. Quinn tries to tell the caller that he has the wrong number but the voice is too fixated to accept any answer. At last, Quinn agrees to meet his caller, whose name is Peter Stillman, assuming the identity of Paul Auster. Then a real detective story begins because Peter Stillman wants Quinn to protect him from his insane father, whom Quinn should find for him.

The corresponding cohesive chain analyses of pages 4–9 are mapped out in abbreviated form in [Figure 5](#). This overview shows again that Quinn is the focal element throughout and the setting is generally located in Quinn's apartment. Although there are a few gaps in this chain on pages 2 and 4, these gaps are filled with the dotted vertical lines because these are the places where the narrator and visual images depict Quinn's mental state, who is actually, diegetically in his apartment at the time of these parallel narrations and depictions.

Apart from the most robust chains of the main character and his apartment, the two horizontal dotted lines distinguish three phases and two types of chain patterns running across the eight pages. The chain pattern of the first (top) and third (bottom) phases denote the configurations of a similar event type: these two phases both deal with how Quinn is engaged with distinctive themes and objects in his life (telephone, written work, New York, Boy). As the chain patterns show, these themes and objects are elucidated consecutively as the story unfolds. The middle phase constructs a very different chain pattern with five parallel chains, signaling a simultaneous interaction across these different people, themes, and objects within the setting. Differences of this kind show vividly the idea of texture mentioned above: phases are distinguished by variations in texture according to the chains and their interconnections.

Through reflecting how cohesive mechanisms are mobilized differently across different phases as the story unfolds, these chain patterns then also provide an effective empirical basis for distinguishing thematics-oriented event types (seen in the first and third phases) from action-oriented event types (seen in the telephone conversation/interaction constituting the second phase). As already suggested in the last section,



**Figure 5.** The overall pattern of the cohesive chains constructed from page 2 to page 9 in Karasik and Mazzuchelli (2004). The dotted lines distinguish three phases and two types of chain patterns across the eight pages.

despite the well-known narrative complexity triggered by the shifts between narrator's 'voice-over' depiction and characters actions, the graphic novel of *City of Glass* exhibits rather straightforward cohesive patterns framed within the two most robust chains of Quinn and his apartment, supported by visual and verbal consistency.

In particular, the analysis of cohesion in the beginning eight pages of *City of Glass* presented here has already demonstrated that a certain path of narrative interpretation process is activated, supported by rather conventional types of cohesive mechanisms often employed transmedially in the opening of a narrative, such as the beginning of a fiction film. The chain pattern of the middle phase of Figure 5 is, for instance, similar to the chain pattern of the beginning of Alfred Hitchcock's *The Birds* (1963) as analysed in detail by Tseng (2013, p. 78).

In the beginning of *City of Glass*, the chains of the location (Quinn's apartment), main characters (Quinn and Paul Auster) and the side object and character (phone and VS) are co-patterned to realise a conventional beginning of the fictional narrative genre, introducing the most dominant narrative elements coherently for anchoring viewers' subsequent narrative predictions. In previous work, we have extensively

analyzed how the mechanisms of cohesive chains are mobilized in the beginning of different fictional genres and how the narrative elements of main characters and settings are in most cases coherently mapped out regardless of genre and differing degrees of narrative complexity (Tseng and Bateman; Bateman and Tseng).

In sum, to this point our analysis of cohesion in the graphic novel has shown that the constant transitions between thematic-oriented and action-oriented event types in the graphic novel are actually compensated by the most straightforward, conventional types of cohesive mechanisms at work, which in all likelihood guide readers to specific paths of quite intended narrative interpretation. This then naturally sets out a collection of clear hypotheses for further empirical investigation.

#### A TRANSMEDIA COMPARISON OF THE NOVEL AND GRAPHIC NOVEL

This section turns to the cohesive mechanisms deployed in Auster's original novel and compares them to those in the graphic novel examined in the previous section. The method applied for establishing cohesive chains from the novel is based on the well established functional linguistic approach to cohesive structures developed by Halliday and Hasan (Halliday and Hasan; Hasan) and, as noted above, requires no adaptation in order to characterize the specific work at issue.

To add more depth to the discussion, it will be useful at several points to draw in addition on Atkinson (Atkinson), who provides an insightful analysis of *City of Glass* by specifically focusing on the feature of metafiction. Atkinson first defines metafiction as a questioning of fictional boundaries and the condensation into a single fictional text of ontologies that logically should not co-exist. In other words, there are ambiguous levels of authorial voices in the story giving rise to an uncertainty as to who is speaking and from where they are speaking (109). He then continues to compare metafictional features in the original novel and in the graphic novel adaptation, arguing that the adaptation of the novel to the graphic novel is hampered by the impossibility of retaining the metafictional framework of the original text—in particular, the ontological shifts in the novel become more stable in the graphic novel due to reoccurring confirmations of the visual resemblance between characters (121) and the placement of the narrator's verbal text into panels. In the graphic novel, therefore, the intertwining narrative threads of the original work are substantially disentangled because the visual narration is imbued with a consistency not found in the shifting narrative voice of the novel (108).

The following comparative analysis of cohesion in *City of Glass* will offer empirical support for Atkinson's contention by unraveling the rather straightforward thematic shifts brought about in the graphic novel due to the cross-modal consistency of narrative elements as well as due to the constraint of affordances in the comic medium. In particular, we will systematically map this consistency by showing the patterns of cohesive mechanisms at work. After constructing cohesive chains from the novel, we then compare the different degrees of thematic shifts across the two media.

We analyze the events in the opening eight pages of Auster's novel, which generally correspond to the events in the graphic novel analyzed in the previous section—that is, from the beginning of the story until the scene where Quinn walks from the bathroom to the ringing telephone. Our transmedia comparison of the cohesive structures uncovered then focuses on four main constraints of the graphic novel adaptation centering

around: (1) descriptions about spaces and places, (2) abstract and emotional themes, (3) presentation of event contexts, and (4) deployment of event types as the narrative unfolds.

*More flexibility of spatial depiction and abstract themes in the novel*

We begin by summarizing the analysis of the first three pages (pages 3 to 5) of the novel. The events of these pages generally conform to pages 2 to 5 in the graphic novel. The novel starts with a description of Quinn—he is thirty-five years old and once had a wife and a son, who are both now dead. Quinn is a writer of mystery novels, which he publishes under the name ‘William Wilson’. Because he is not interested in being recognized or interviewed, he never meets his agent and publisher, only contacting them by mail. He is a person of total solitude, stubbornness, and emptiness. His favorite activity is walking through the streets of New York, where he lives and where he always feels lost in a labyrinth. He sometimes takes strolls for hours, without any destination or specific direction. Figure 6 shows the cohesive chains established across these pages of the novel. Applying the same principles of cohesion analysis that we have introduced above, the cohesive chains established in the verbal texts again track the most dominantly employed narrative elements of people, places and things. Each link of a chain thereby denotes elements within a sentence in the verbal text.

The cohesive chains in the opening events in the novel immediately show that a substantial difference between the novel and the graphic novel can be seen in the number of chains—which in turn corresponds directly to the number of dominant narrative elements involved in the story. In the novel, more themes are dealt with. Compared to the cohesive chains in the graphic novel, eight more chains/themes are now included in the chain pattern, that is, time, narrator, family/friends, places, art/entertainment, mind, money, agent. This shows that more varieties of themes are discussed surrounding the main character Quinn, not only his interactions with family, friends, his agent, and publisher, but also details about his life, such as important time and spaces in his life, his money, the art/entertainment he used to like, etc.

Apart from the themes surrounding Quinn, the voice of the narrator is also identified by using ‘us’ and ‘we’ in the beginning of the novel. While the graphic novel simply uses text boxes and capital letters to denote an external, non-diegetic voice in the story, the narrator is signaled as a speaker, although without specific identity nevertheless belonging to one of the narrative elements.

The transmedia comparison of chain patterns also shows that one of the most robust chains in the graphic novel, Quinn’s apartment, is not particularly established in the novel. Instead, in the novel, the general element of places is described with more flexibility, including both narrative elements of Quinn’s New York apartments and abstract spatial concepts related to Quinn’s life and his world. This analytical result is directly related to Atkinson’s (Atkinson) contention about how the novel allows meta-fictional texts to ‘continually dumbfound the reader with sudden shifts in mode or context’ (111), while the spatial containment in the graphic novel hampers its metafictional potentials (112).

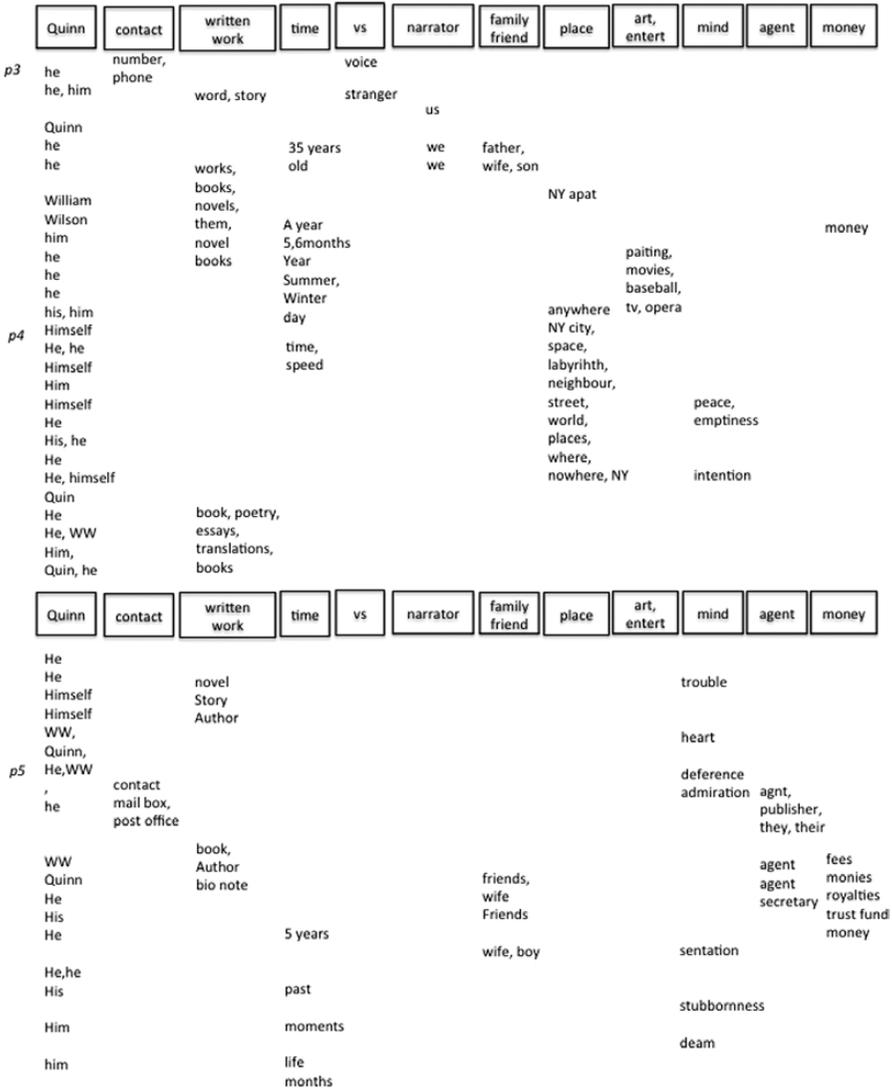


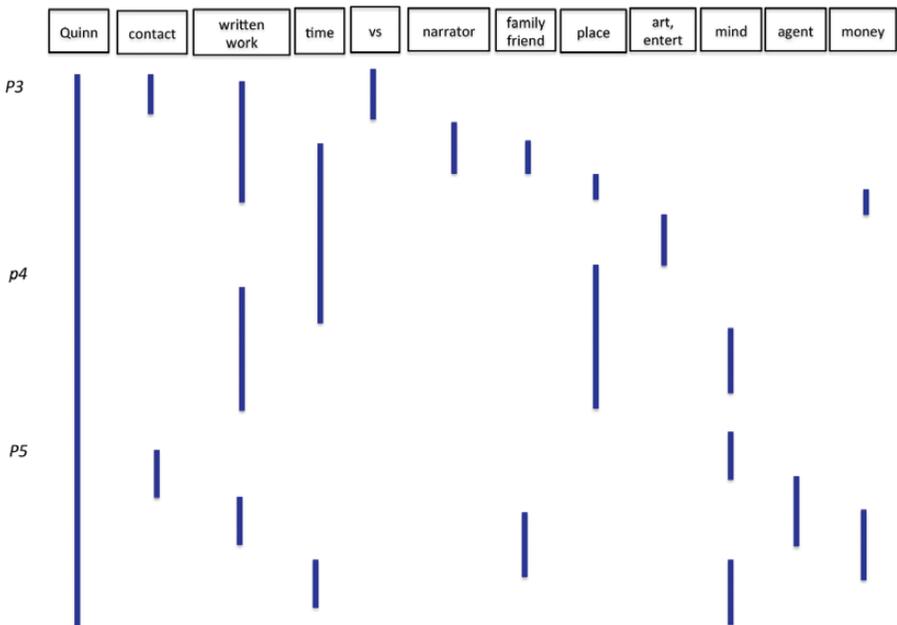
Figure 6. The cohesive chains constructed from pages 3 to 5 in Auster’s novel *City of Glass* (1985).

This general metafictional difference is most vividly instantiated in one particular description about New York in page 4 in the graphic novel and pages 3–4 in the novel. The original passage of Auster’s text foregrounds Quinn’s desire to be ‘nowhere’ and ‘anywhere’. However, in the comic adaptation, the passage from Auster’s text is reproduced in the panels, where readers are suggested to interpret Quinn walking against the backdrop of the New York skyline at night. Atkinson argues that the character’s movement is never seen independently of a visual context and ‘the image of the city as

a whole is invoked through the metonym of the skyline and is conceptualized prior to the act of walking. In other words, there is a centralized and visualizable conception of New York' (112). In this case, the character's strong desire to be 'nowhere' is rendered impossible by the visual structure that frames his action.

The overall chain pattern in the opening three pages of the novel is mapped out in Figure 7 in a similar fashion to that used earlier for the graphic novel. This depicts approximately the same events in the first phase in the graphic novel shown in Figure 5. The comparison of the chain patterns again immediately reflects what Atkinson (Atkinson) proposes as the main trait of metafiction, namely, the uncertain, unclear ontological shifts in the novel. Not only does the lack of a robust setting chain reflect the unspecified space of the depiction, but also, the thematic shifts across these pages are not straightforward as they are in the graphic novel.

In the graphic novel, for instance, the element of the telephone is portrayed mostly in the action-oriented event type when Quinn is seen holding the receiver or talking to the caller. However, in the novel, the element of the telephone can be tracked not only in the event of telephone conversations in Quinn's apartment, but also, as we will see in the following analysis, the 'telephone' element is often portrayed in other event types, such as in the emotion-oriented depictions of Quinn's general feelings and attitudes toward this specific object in his life. Again, due to the constraints of medium affordances, these perspectives from Quinn's inner thoughts and feelings are substantially reduced in the graphic novel.



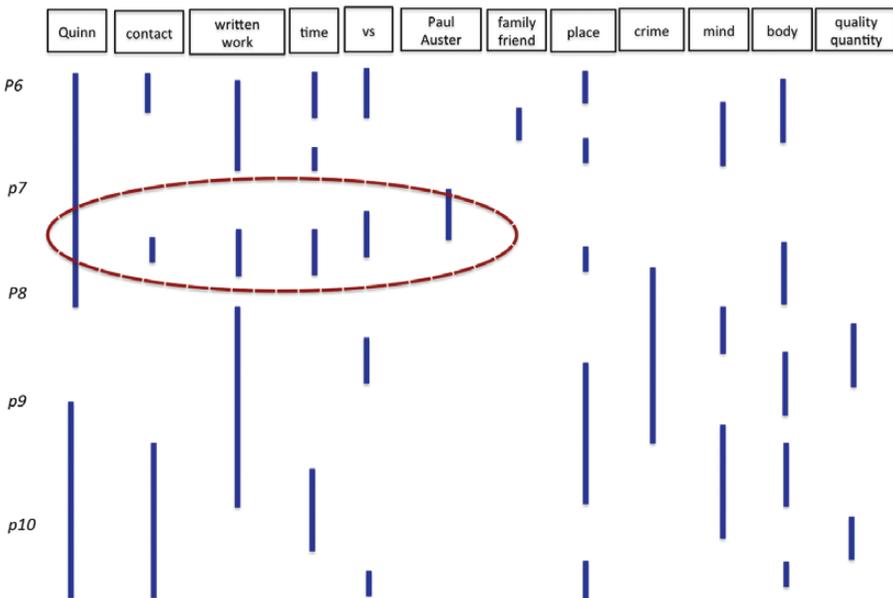
**Figure 7.** The overall pattern of the cohesive chains constructed from pages 3 to 5 in Auster's novel *City of Glass* (1985).

*More flexible temporal deployments of events in the novel*

The overview of the cohesive chains in pages 6–10 of the novel is displayed in Figure 8. The dotted ellipse overlaid on the cohesive chains singles out the chain patterns of the telephone conversation between Quinn and the caller. The chain patterns show that this event in the novel is embedded into the overall narrative flow rather than functioning as an independent story phase with distinguishable transitions from and to other phases, as was the case in the graphic novel shown in the middle part of Figure 5.

The comparison of the chain patterns between the same event in the graphic novel and the novel shows one particular mechanisms cuing the viewer’s perception: the middle part of Figure 5 shows that in the graphic novel the telephone conversation event has a straightforward, independent event pattern, with only the chains of the setting, Quinn, the caller (VS), the phone, and the content of their conversation (Paul Auster). However, Figure 8 shows that the chains of Quinn, the caller (VS), contact (phone), the place and Paul Auster are also co-patterned with the chains of time, written work and body; the novel ‘embellishes’ this conversation event by describing other contextual events before the conversation takes place—for instance, how Quinn lies in bed reading Marco Polo’s work after finishing one of his William Wilson novels two weeks earlier and how he then languishes with Max Work keeping his company, etc. These vivid descriptions of Quinn’s inner states and earlier events, which function to provide a rich context surrounding Quinn’s telephone conversation, are all taken out or rearranged in the graphic novel. This is brought out quite precisely by the detailed cohesion analysis.

The greater flexibility of event deployments is also reflected in the chain of time established in the novel but missing in the graphic novel. In the novel, not only are



**Figure 8.** The overall pattern of the cohesive chains constructed from pages 6 to 10 of Auster’s *City of Glass* (1985).

Quinn's time-related personality traits and life style, such as procrastination and languishing, foregrounded, but also the elements in the time chain specify several time points in Quinn's life when the narrator describes Quinn's past stories or some time frames in Quinn's present events. These time elements are particularly indicated because the novel deploys events from different times in a more flexible structure. In contrast, in the comic medium, the temporal structure of the narrative is straightforwardly linear as signaled by visual coherence across the panels.

In sum, the transmedia comparisons in the patterns of cohesive mechanisms between Auster's original novel and its graphic novel adaptation explicitly show how the different affordances between verbal and comic media have led to a more constrained deployment and development of spatial, temporal and contextual treatments of narrative events in the graphic novel.

#### TOWARDS EMPIRICAL HYPOTHESES ON PERCEPTION

Studies of narrative perception and transportation have shown that when the readers of verbal narratives are transported or immersed into a narrative world, they experience not only cognitive and emotional engagement but also imagery involvement in the narrative (Green and Brock). In other words, the readers of the novel are able to create vivid imagery based on the information provided and inferences triggered by the verbal texts. With regard to *City of Glass*, Auster himself writes:

'The world of the book comes to life, seething with possibilities, with secrets and contradictions. Since everything seen or said, even the slightest, most trivial thing, can bear a connection to the outcome of the story, nothing must be overlooked.' (Auster 8)

On the basis of the transportation-imagery model, our transmedia comparison of cohesive chains in *City of Glass* also supports the formulation of the intriguing hypothesis that, even though the graphic novel provides explicit visual realization of the story, more straightforward narrative structures and more coherent thematics, readers of the novel may be led nevertheless to a sharper picture of Quinn far more quickly.

This suggests several experimental and perceptual investigations. Already in the beginning of the novel, the reader should be able to create a complex imagery of Quinn as an eccentric, lonely yet intelligent man who lives a life that is just regulated by himself, drawing on the varieties of contextualizing information of Quinn's personality and how Quinn likes or dislikes particular things and why Quinn acts in certain situations. In contrast, the freedom of the readers' creation of imagery in the graphic novel is substantially confined to the specific relatively simple figure of Quinn in the panels and so may be hampered by the removal and reduction of narrative elements about Quinn's mind, emotion, and character traits.

This might then also support comparative studies considering readers of the graphic novel who have also read the original novel and those who have not. With more background knowledge of the main character, readers may seek to extract more information from the graphic novel than those who do not have this information—such differences may then constitute hypotheses to be explored in, for example, eye-tracking studies. Several empirical studies involving eyetracking experiments have been conducted to examine the perception of moving images (Smith et al.; Smith), but few studies to date have investigated graphic novels. Recent work by Foulsham et al. (Foulsham et al) and

Tseng and Pflaeging (Tseng and Pflaeging) shows the empirical strength of the method of carefully manipulating the narrative structure of comic strips, but broader studies of more complex narratives and contrastive studies with the discourse comprehension of written works remain to be done.

This again marks out the particular potential of cohesive analysis for guiding the formation of empirical hypotheses for experimental investigation. The method of cohesive structure construction effectively bridges between lower-level textual devices and higher-level discourse and narrative features. Perceptual studies, including eye-tracking, reflect how viewers interpret the narrative but require highly systematic ways of capturing potential narrative interpretations abstractly in order to focus analytic attention adequately. This is precisely the role of cohesive chains.

How chains are tied together is also hypothesized to capture a reader's interpretative hypotheses concerning the text or graphic novel at a higher level of abstraction. This suggests a range of significant factors for experimental manipulation in order to investigate readers' behaviors. Such manipulations may explore cross-modal tracking of the same identity, e. g. if the readers consistently track visual cues in cohesive identity chains when reading verbal elements from the same chain in texts, which can be systematically measured through eyetracking experiments. Deliberately manipulating cohesive connections to produce experimental stimuli presents a further range of possibilities for narrowing the gap between perceptual studies and more abstract narrative and aesthetic considerations. Without levels of mediating description such as cohesive analysis, this important step remains extremely difficult to take.

## CONCLUSION

This article has proposed a discourse analytical approach to transmedia adaptation drawing on the transmedia development of the framework of cohesion. Building on previous work applying the method of cohesion in language and film, we have shown how this can be extended to provide detailed characterizations of aspects of the narrative strategies employed in graphic novels also. From the comparative results of the transmedia adaptation, we have shown how the systematic construction of cohesive chains has the potential for offering abstract descriptions supportive of empirical explorations of media-induced variations in adaptations. The robustness and generality of analyses of this kind was also demonstrated by the fact that neither the individual methodological steps followed during application of the framework, nor the contrasts brought into relief during comparison of the resulting cohesive chains, required any tailoring for the specific, rather complex, cases at hand. Moreover, we suggested how the analysis may also play a role in supporting higher level literary comparisons of the kind proposed by Atkinson, by relating those comparisons to concretely identifiable patterns in the artifacts being compared. This then promises in turn the possibility of bridging between high level interpretations and empirical investigations employing behavioral measures and perceptual experimentation.

Clearly there are many further aspects of these, and any other, aesthetic artworks that could usefully be brought into discussion. Cohesive analysis by no means exhausts what needs to be addressed when comparing and contrasting artworks realized in differing media. The method we have set out is concerned with one very specific task: that

of developing levels of abstract description for complex artifacts capable of offering a bridge between, on the one side, the necessarily more quantitative demands of empirical studies, which seek to locate reoccurring patterns across broader collections of data, and, on the other side, the interpretative characterizations of media and medium-specificity pursued in more hermeneutically inflected accounts. We see the construction of analytic bridges of this kind as the primary challenge facing any empirical approach to aesthetic artifacts, including attempts to employ perceptual studies as one case. On their own, empirical studies are in danger of underestimating, or even overlooking, properties fundamental to the workings of any artwork considered—properties that constitute the centerpiece of hermeneutic interpretations; conversely, hermeneutic explorations of aesthetic effect commonly remain unsupported, or are unsupportable, with respect to broader and more varied collections of artifacts and performances—thus cutting off potentially useful lines of evidence and argument. Mediating levels of discourse description, such as cohesion, may serve to help bring these worlds together in a mutually beneficial and complementary fashion.

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