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Poetics

journal homepage: [www.elsevier.com/locate/poetic](http://www.elsevier.com/locate/poetic)

## Inducing narrative tension in the viewer through suspense, surprise, and curiosity

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### ARTICLE INFO

#### Keywords:

narrative tension  
suspense  
surprise  
curiosity  
enjoyment  
interest

### ABSTRACT

Research into narrative tension is of interest in terms of the progress of knowledge of the processes and mechanisms by which stories are received and enjoyed. We have created four versions of an audiovisual story with three different structures of fiction (suspense, surprise, curiosity) and one of non-fiction. We have investigated the effects of the narrative tension of these stories with four groups of subjects (N=94). The results show that the organization of the stories, depending on their structures of suspense, surprise, or curiosity, induces narrative tension, while the non-fictional story, induces cognitive and affective effects of another kind. Narrative tension appears during narrative progression. It is manifested by cognitive-affective responses that include anticipations, diagnoses, retrospections, and emotions. In narrative tension, curiosity plays a triggering and organizing role in suspense and surprise. The emotions and cognitions that result from narrative tension during plot construction underpin the experience of enjoyment. The Multidimensional Narrative Tension Theory of Enjoyment that emerges from this research allows establishing connections between narrative theory concerned with narrative progression and plot, the psychology of interest, and the psychology of media enjoyment.

### Introduction

Research into narrative tension is of interest for the progress of knowledge in two complementary fields that deal with the reception and enjoyment of stories. From a text-oriented approach, modern linguistics defines tension in different ways (Leshchenko, 2018). For example, tension can be defined as an attribute of the structures of language (Admony, 1969; Yeltsova, 2006); as a property of the communicative units of language (Myshkina, 1998); as a category of the text, manifested at various levels of units of language, above all lexical and syntactic (Yudina, 1990); as a phenomenon of language, literature, and art (Fill, 2003); or as a phenomenon that emerges in interaction with cultural tools (Candel, 2018).

However, considering this approach, the greatest interest concerning this research is the role of narrative tension for Narrative

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<https://doi.org/10.1016/j.poetic.2022.101664>

Received 19 May 2021; Received in revised form 16 February 2022; Accepted 23 February 2022

Available online 9 March 2022

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Theory (Phelan & Rabinowitz, 2005; Hühn et al., 2009; Puckett, 2016; Garrett, 2018). There has been a shift in recent years in narrative theory from an immanent structuralist position to a post-classical one (Herman, 1999; Alber & Fludernik, 2010; Baroni, 2017; Ionescu, 2019). One of the consequences of this narrative renewal is the need to investigate in greater depth the knowledge of the cognitive processes in reading (Herman, 2003; Herman, et al., 2014; Fludernik, 1996). This is no longer considered as an activity of simple assimilation of the story but a reconstructive activity of the plot that relates the possible worlds of the text to the reader's narrative schemas. This is a dynamic process that requires the structural participation of the reader during the reading. The plot is not something static that is already available before the reading. It has to be constructed (Morgan, 2013; Baroni, 2015). Hence, Phelan (1989; 2007) proposed replacing the plot with *narrative progression*, as a process that leads the reader, during reading, to construct the plot gradually (Danner, 2008; Toolan, 2009; Shang, 2011; Shen, 2014; Shang & Phelan, 2019).

In parallel to the above development, the renewal of narrative theory came also to incorporate the study of thymic functions, referring to passionate and emotional phenomena aroused by the text (Hébert, 2007; Fontanille & Zilberberg, 1998; Zilberberg, 2006). The thymic functions refer to the state of mind, spirit, or feelings and are related to the subjects' behaviour, affectivity (as well as emotional bodily reactions) that make their experience states of euphoria/dysphoria or pleasure/displeasure in relation to a trigger. The works of Bally (1965) or the Greimasian perspective (for example, Greimas & Courtés, 1979; Greimas & Fontanille, 1991; Courtés, 1991; Hébert, 2007) are interested in the linguistic markers of emotion in language. There is also a second perspective (rooted in Aristotelian pathos), which is interested in the communicational dimension of poetic effects of an affective or passionate nature involving the emotions and thus focused on the *emotions aroused* by the discourse that induce *narrative tension* (Baroni, 2007; Brooks, 1992). This set of works on thymic functions place the emphasis on the inducement by the text of affective responses, providing a second way to take the role of the reader into consideration.

The twin cognitive and affective development described above has recently led to the need to incorporate narrative tension as a core element of narrative theory. Narrative tension is difficult to fit into classical narrative theory. It has now taken on a necessary status in current post-classical narratology due to this renewed role attributed to the reader. Baroni (2007) defines *narrative tension* as a phenomenon that occurs when the interpreter of a story is enticed to wait for an outcome, characterized by an anticipation tinged with uncertainty. This confers characteristics of passion to the act of reception. Three features can be identified in the definitions of narrative tension that have been proposed (Lehne & Koelsch, 2015; Leshchenko, 2018): (1) During the narrative progression there is a process of distribution of information by which the text provides certain information about the plot, but also withholds others (Baroni, 2009; Barthes, 1970). The reader experiences a gap between the information she has available at any time and the information missing to be able to construct the plot. This gap provokes a state of conflict, dissonance or instability. (2) This state of instability generates uncertainty as the text does not provide, from the start of the reading, the informational elements that allow a resolution to the instability. (3) Given this informational dilation, the recipient may anticipate and generate expectations to try to resolve the imbalance generated.

As Phelan suggests (Shang & Phelan, 2019), we have to distinguish between two vectors in the narrative progression, which function together. First, there is the process of distributing information, which follows the internal logic of the story, leading the characters and events from start to finish. Then there is the recipient's path of response to this internal movement of the story. In this double vectorisation of the narrative progression (Hansen et al., 2017), the theorisation of narrative tension suggests that when a gap is produced in the first vector, and the information is withheld, the response of the recipient in the second vector is both a cognitive and affective imbalance, in accordance with the three features described above.

Thus, the study of narrative tension constitutes a field of study of interest for modern narrative theory, as it has theoretical effects on the notion of narrative sequence and plot construction (Dannenberg, 2005; Adam, 2011; Baroni & Revaz, 2016) in its twin cognitive and affective dimension. It also helps modify the way of understanding the story/discourse duality, as the focus is no longer on the story; it has shifted to the discourse structure and processes that take place during the narration. However, a number of questions have to be explained for this theoretical progress to be effective.

The definition of narrative tension suggests that withholding information during reading triggers cognitive and emotional states in the reader. However, the question is to understand how the text manages to produce these effects and what precisely occurs in the reader during the process, and with what consequences. An initial study, which constituted the starting point for this line of research, is the work of Sternberg (1978). He argues that the organization of the discourse and its progress according to a structure of suspense, curiosity or surprise, would induce these emotions. Another question that the text-oriented perspective poses is whether the narrative tension generated during the narrative progression has any function related to enjoyment. To respond to these questions, we must turn to a second reader-oriented perspective, and particularly to position ourselves within the field of the psychology of emotion and entertainment, where an attempt has been made to examine the cognitive and emotional processes and mechanisms that sustain the experience of enjoyment. The focus on this second perspective is not based on the inscribed and questioned reader, within and from the text, but that of an empirical recipient. In 1911, Wundt (2012) had already included tension in his three-dimensional model of emotion. However, as Lehne & Koelsch (2015) note, recent emotion research has largely neglected the role of tension in emotion, and surprisingly little is known about the psychological mechanisms underlying experiences of tension. Similarly, the notion of narrative tension has only been addressed in very few works (Lehne & Koelsch, 2015) and partially and indirectly so far (Brewer & Liechtenstein, 1981). For Leshchenko (2018), from the reader-oriented perspective, tension is the reader's psychological response to the development of fictional/factual events. This response is formed by the interaction of three major constituents: uncertainty, expectation/anticipation and investment/engagement and have been analysed essentially in relation to suspense (Vorderer, et al., 1996).

The twin paths we have just taken allow us to observe that the text-oriented and reader-oriented approaches are complementary. Both are interested in the reader's activity, even though one is focused on the model and abstract reader inscribed in the text and in the other it is an empirical-psychological reader. One is more interested in understanding the text and the other in the reader. Both are

interested in understanding how the text induces the emotions that accompany reading in the reader/viewer, and also in how the reader responds, what they experience. Narrative tension has a structural role in both. Thus, a dialogue between the two perspectives is desirable. In this respect, the process of narrative tension postulated by narrative theory raises some hypotheses about the cognitive and affective dimensions to which psychology has still not responded. Even when both dimensions form a single part of the tension process, some questions relate to the emotional dimension and others to the cognitive.

Based on the proposals of Sternberg (1978), the Structural-Affect Theory of the Story Schema of Brewer & Lichtenstein (1981; 1982) demonstrated that the reorganisation of the story in the discourse according to certain dispositions could induce emotional responses of suspense or surprise in the empirical reader. It was a first important step for testing the hypotheses suggested by contemporary narrative theory with respect to the affective dimension. However, we consider that three aspects must be investigated further.

First, Brewer & Lichtenstein (1981; 1982) examine suspense and surprise, but not curiosity. Now, the emotion of curiosity, which organises the discourse time structure at a global level in a different way than suspense and surprise (Sternberg, 1978; Baroni, 2007; 2017) may also appear in the narrative progression as a response to local rather than global imbalances. The plot is defined by the interplay between tension and resolution (Baroni, 2011). As Todorov says, in this process of plot articulation there are two forms of interest that contribute in different ways to configure the plot. One is curiosity, whose dynamics move from effect to cause. The other is suspense, in which we are first shown the cause, which guides our interest to the effect (Todorov, 1971: 60). In addition, as Baroni notes (2011), extending the argument of Tomashevsky (1965), when the narrative is organized based on the outcome (effect), the story is unlikely to awaken the reader's expectations and thus a movement of suspense. In this case, what he suggests is that there is a shift in the narrative interest from "what" to "how"; in other words, from suspense to curiosity. In this way, the dynamics that lead to an articulation of the plot may be triggered, although in a different form, more similar to the hermeneutic code defined by Barthes (1970).

A second insufficiency is of a theoretical and methodological nature. The research by Brewer and Lichtenstein (1981) explores whether the subject has experienced a specific emotion, suspense or surprise, in an arrangement of suspense or surprise. However, the imbalance may induce different levels of interest and orientation (forward, backward, etc.). The emotional process does not have to be monolithic and present a single emotion during the whole period of reading. The recipient may experience one or more emotions in different narrative sequences. It is therefore necessary to test whether during the period of reading, the emotional process is monolithic (only one emotion) or whether it may be multi-dimensional (various emotions).

Third, Brewer and Lichtenstein (1981) construct the stories sticking to a narrative progression following the node-outcome vector. They are only interested in the global effects of the story in its event-outcome structure, in other words by the core element of internal logic postulated by Phelan (Phelan, 2007; Shang & Phelan, 2019). However, another two aspects have to be taken into account. One has to do with the nature of the imbalances experienced by the recipient during the narrative progression. These may be induced by different imbalances, not only by the overall ones, linked to the outcome of the event, but also to those imbalances or conflicts that are generated at a local level in the narrative progression. The narrative tension is generated throughout the narrative progression. This tension may be induced by the delay in providing elements that lead to the outcome, but also by the deviations that lead to tension because they are forms of imbalance through discordance or dissonance. A second aspect has to do with the displacement of the current narrative theory from the *fable* to the *sujet*. Given that it is here where the construction of the plot takes place, the reader is susceptible to considering local aspects that arise in the discourse structure, which are not necessarily geared to the resolution of the climax but which lead to a tension imbalance.

With respect to the second cognitive dimension, narrative theory postulates that when the discourse structure is organised in such a way that it produces informational imbalances leading to narrative tension, it not only creates emotions but also cognitions in the form of anticipations and expectations. The hypothesis proposed by Baroni (2007) in narratology is that given the lack of sufficient elements of textual information, the narrative tension generated in the reader is manifested in cognitive states that fulfil either a prognostic, diagnostic, retrospective, or recognition function. These different types of cognitive responses would be aroused by the type of discourse structure and would be specific responses to the textual organisation of suspense, curiosity or surprise. Despite their relevance for understanding the processes of narrative tension, this hypothesis has not yet been tested and will be one of the objectives of this research.

Finally, the limited number of empirical studies carried out have used brief written texts. There are no studies with extensive and complete audiovisual stories that are equivalent and allow a comparison of the organisation of suspense, surprise, and curiosity and of the discourse structure.

Based on the gaps and questions raised above, a first objective is to investigate whether, during the exposure to narrative structures of suspense, surprise and curiosity in audiovisual stories, specific levels of affective and cognitive narrative tension are induced in the viewer for each of these three narrative structures. It is therefore a question of analysing the response of the recipient's narrative tension in the narrative progression.

H1. During narrative progression viewers manifest cognitive imbalances and emotional responses of narrative tension characteristic of each of the discursive structure types, suspense, surprise and curiosity.

Enjoyment and entertainment are multi-dimensional constructs that cover different variables and diverse perspectives (Eden, 2017; Bartsch, 2017). There are no studies that have investigated the possible relationship of narrative tension with some of the variables of these constructs. Consequently, given the purposes of this research, we are taking into consideration some of the variables that allow this exploration to be initiated. In this way, our second objective may relate the recipient's responses of local narrative tension in the different sequences of narrative progression, with overall assessments of arousal, Affective Reaction, appreciation and engagement. With these four variables we aim to explore the possible relations between narrative tension and some complementary dimensions of enjoyment and entertainment.

H2. There is a positive relationship between the local responses of narrative emotional/cognitive tension during the narrative progression and the overall appraisals of enjoyment.

## Materials and Methods

To compare the responses to discourse structures of suspense, surprise and curiosity, the same basic material must be used and reorganised in respective versions according to the means of organisation proposed from the theoretical construct outlined above. In this audiovisual research we have created an audiovisual project edited in four different versions that have been tested with four groups of participants (available on YouTube: [Appendix](#)).

### Participants and Procedure

Ninety-four university students studying communication ((age,  $M= 21.38$ ,  $SD=4.15$ ) were distributed into four independent groups: SUS (Suspense), CURI (Curiosity), SUR (Surprise), INF (Non-fictional). Computers were available to participants during the session. They entered a link that took them to an application where they could view the short film corresponding to their experimental group. Next, they completed a set of scales and tasks that included various successive viewings. First, they expressed their overall Affective Reaction to the short on a scale of Arousal (AROU) and on a scale of Affective Response (AFRE). Next, the cognition and emotional states of the subjects aroused by the short during the narrative progression were registered in five specific points. Each of these evaluated one of the five events that configure the plot. For point 1, the subjects saw a frame that corresponded to the status of the close of the event that structures the sequence. The subjects were asked to write everything they remembered having experienced and thought at this precise time during the short (COGP). Next, after they were told what the emotions of suspense, curiosity and surprise consisted of, they were asked to write any emotion they experienced in this specific scene and to give a score from 1 to 5 according to the level of intensity (EMOP). The procedure to evaluate the local cognitions and emotions was repeated for each of the five points. These points appear numbered in brackets from [1] to [5]. Their precise placement in the structure of events is indicated in the subsection on materials below. There it can be seen to what specific event of the discourse structure each of them corresponds. Finally, related to the experience of entertainment, the subjects filled in a scale of appreciative enjoyment attitudes (APR) and a scale of engagement (ENG).

### Material and Instruments of measurement

Taking into account the quinary model (Adam, 2011; Labov & Waletzky, 1967), which covers the narrative sequence and plot (Baroni & Revaz, 2016) and the event structure proposed to study surprise, suspense and curiosity (based on Sternberg, 1978; Brewer and Lichtenstein, 1981; 1982), we have created the base story *El Avecinero* [*The Bird-Butcher*]. It is an audiovisual production, with the participation of amateur actors, whose idea, script, direction and realization, production and editing was carried out at the LipsiMedia-Laboratory with the material and technical support of the Audiovisual-Media Laboratory of the University of Valladolid (Cf. Appendix : credits in short-films). The main character of *El Avecinero* appears to be a lover of birds, which he feeds in parks. He smiles when he sees them eat, and appears to be happy. He also has many birds at home that he treats lovingly. However, during the story, the viewer discovers the real identity of the character, as his relationship with the birds is not what it appears. He procures the birds in natural environments, feeds them with natural products and finally kills them to sell them.

At the level of action, we should remember that an event has two features. It is a structure with a beginning, development and an end. It is connected to other events and the interrelation of all of them gives rise to the unity of the plot. Our story has a structure with four events. Event A: A trigger, event or complication (the character tries to hunt, breed and kill birds). Events B and C: Resolution or development of the action (the actions by the character to achieve his objective). Event D: outcome or result (killing and selling the birds).

At the level of the character's identity, according to the semantic table defined by narratology (Bal, 1997), he is a deceptive character.

Based on this basic structure, three fictional short films were created with the structures of suspense, surprise, and curiosity. We will refer to these three short fictional films, as well as the three groups of subjects to which each of them is ascribed, tension-creating, as they aim to induce narrative tension. A fourth short was also produced, which we call the non-fictional. This short respects the chronology of the event structure and does not create informational disruptions during the narrative progression, as happens in the three other tension groups (their event structure is summed up below). The time in which each event in the short takes place is indicated in brackets. This fourth audiovisual product is presented as an informative (non-fiction) report in which the character is presented as real.

### Event Structure: Suspense

A (00:00-00:56). The leading character is striking something violently with a butcher's knife, but the framing of the shot does not allow us to know what. During this action, there is extradiegetic music expressing tension and a shot is inserted in which we see with a colour different from the rest of the shots, the face of a character. A voice off is heard saying, "I have to kill..." [1]. The responses to the possible questions arising from this event are extended until the final event D.

B (00:57-02:40) and C (02:40-02:58). The start of the above plot is prolonged and fed by the sequences B and C. We see the main character in the park, where there are many birds. He enjoys seeing them. He has a box (Ba), on which the camera focuses in close-up

[2]. But we don't know what it is inside. Next, we see the character in a bird shop buying a cage (Bb), in his house happy with his birds (Ca) and talking on the phone about the health of his birds (Cb).

D (02:59-05:05). The leading character enters a butcher's shop with the box under his arm. He sits down and talks to the butcher. We discover suddenly that the close-up of the character who appeared briefly inserted at the start of A is the same shot. The character was the butcher. The editing of this sequence leads us to consider that perhaps the leading character has to kill the butcher (Da) [3]. The leading character slowly opens the box (music of intrigue) and we discover that inside are dead birds (Db) [4]. This is when the viewer discovers what he was striking with the butcher's knife in A, and what he had in the box: the pieces of birds that he was trying to sell to the butcher. The viewer again sees the initial shots of A, but now he is shown a long shot showing the desk, and discovers that the leading character was striking with the butcher's knife at the start of the story. They were birds that he was cutting into pieces. Also heard is the whole incomplete phrase heard in A ("I now have to kill... these birds for the sale this week"). Then, in the following shot, we see him trying to sell them to the butcher. He opens the package and we discover that inside were the pieces of birds (Dc) [5]. Thus, the conflict (A) closes here: what he killed were the birds to sell them.

*Event Structure: Curiosity*

A (00:00-01:03). The viewer can see what the leading character is cutting. He is cutting up birds. At the same time, we hear the

| TYPES OF COGNITIVE RESPONSE   | SPECTATOR'S VERBAL MANIFESTATION  | FUNCTION                  | PREDOMINANT DISCOURSE |
|---|---|---------------------------|-----------------------|
| <b>Speculate on what will occur:</b>                                |   |                           |                       |
| 1. Anticipations  | e.g.: something is going to happen here. A murder?                                    | Prognosis                 | Suspense              |
| 2. Specific delay (Uncertainty)                                     | e.g.: It looks as if the character with a knife wants to kill the other character     |                           |                       |
| <b>Manifest the need for information:</b>                           |   |                           |                       |
| 3. uncertainties  | e.g.: It seems that he likes birds  | Diagnosis                 | Curiosity             |
| 4. questions  | e.g.: Why...? Let's see if we know why  |                           |                       |
| 5. incomprehension  | e.g.: I don't understand why... (specify what I don't understand)                     |                           |                       |
| <b>Ruptures and readjustments of the schemas activated earlier:</b> |   |                           |                       |
| 6. Schema update  | e.g.: I thought that this character liked birds, but, actually, he was a bird-butcher | Retrospection             | Surprise              |
| 7. Verbal manifestation of Surprise                                 | e.g.: it is surprising. It looked one thing but it is another                         |                           |                       |
| <b>Reaction to specific images:</b>                                 |   |                           |                       |
| 8. Emotional assesment  | e.g.: how disgusting it is to see how chickens are cut                                | Local emotional appraisal | Non Fiction           |
| <b>Thematic comment:</b>  |   |                           |                       |
| 9. Unconnected to the plot  | e.g.: I do not like industrial meat consumption                                       | Neutral                   | Non Fiction           |

Fig. 1. Types of cognitive response. Source: Own elaboration.

phrase, “I now have to kill these birds...” Next, some characters appear with strange clothes who, to the music of drums, dance in a strange and intriguing way [1]. This scene is different from the realistic style of the rest of the short and constitutes an element that triggers curiosity.

B (01:04-02:10) and C (02:11-02:53). Like the suspense edit, here we see in succession: the scene in the park (Ba) [2] the bird shop (Bb), the home (Ca), the office (Cb).

D (02:54-05:06). Sequence in the butcher’s shop. Conversation with the butcher (Da) [3]. He opens the box and we see the dead birds (Db) [4]. Back at the cutting room in A. The phrase is completed (“I now have to kill these birds... to sell them this week”). The dream dancers appear again [5].

*Event Structure: Surprise*

The structure is the same as in previous edits. The difference is that here the event A is omitted, so the viewer has the impression during the sequences B and C that he is a lover of birds. However, in D the viewer discovers the real identity of the leading character. He is not a lover of birds, but a butcher. With respect to the points assessed, we have: in the park (Ba) [1], home (Ca) [2], the butcher’s (Da) [3], opens box (Db) [4], cutting room (Dc) [5].

With respect to the instruments of measurement, after viewing the short, we have used for the overall emotional appraisals, the Arousal scale (Bruner, 2009) (AROU) and the Affective Response scale (Bruner, 2009) (AFRE). After evaluating the cognitions and affects in the five points indicated above (, EMOP), the scale of appreciative attitudes of enjoyment (Ducoffe, 1996 a, b) (APR) have been used, together with the engagement scale (Busselle & Bilandzic, 2009) (ENG). For the EMOP variable, all the emotions experienced in each of the five points were recorded, as well as their evaluation on a 5-point Likert scale. Finally, for the cognitions in the points (COGP) we used, from a cognitive response approach (Greenwall, 1968), the Thought-listing technique (Cacioppo & Petty, 1981). For each of the points of the story, the subject was presented with a frame of the short film that corresponded precisely to the point of the story about which he/she was asked to evoke all the thoughts he had at that point. Once they had written their answers, they moved on to the next point and so on up to the fifth. In this way, it was the participant himself who determined the interval between points. For the scoring thought listing, the judges segmented the thoughts at each point. In the coding scheme, all thoughts were analysed according to their polarity-origin-target (Cacioppo & Petty, 1981) and presentation-related thoughts (Woelke & Pelzer, 2020). Based on the research objectives and hypotheses, in the categorization of cognitive responses, three independent judges, all of them experts in Communication research, found nine types of thoughts that could be grouped into five dimensions of cognitive response (Cf Fig. 1). The level of agreement between three independent judges for this categorization and dimensions was measured by means of Kappa’s Fleiss, obtaining a  $k=.784$  and  $k=.825$  respectively.

All variables included in the methodology (AROU, AFRE, APR, ENG, COGP, EMOP) were numerically coded and statistically processed using SPSS-25.

**Results**

*Narrative Tension*

In the analysis of the cognitive responses to the five points of narrative progression new types of cognitions appear. We will use the term *cognitions* here to refer to the complete thoughts that the subjects manifest having produced in each of the five tested points of the story. As shown in Fig. 1, in the anticipations and the uncertainties, the viewer speculates on what will occur. These two types of response have a function of prognosis and, as we will see, predominate in the Suspense edit (see Fig. 2). The cognitions of uncertainty, questioning and incomprehension manifest the need for information and have a diagnostic function. They predominate in the Curiosity

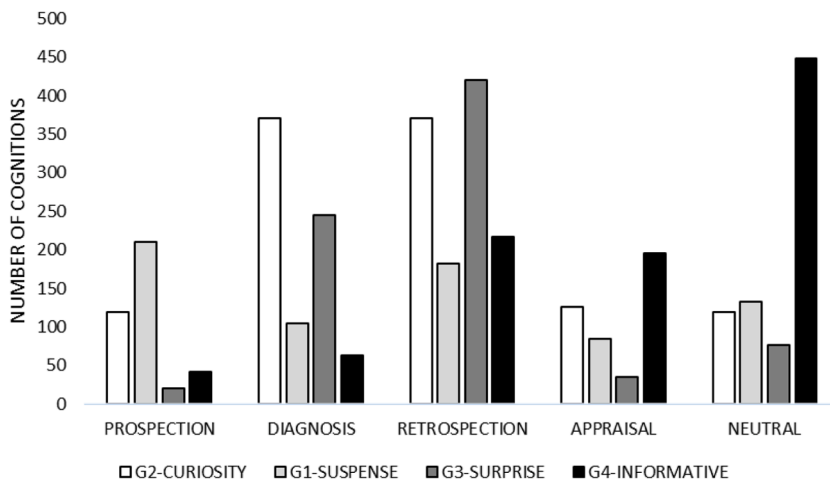


Fig. 2. Types of cognitions in the groups. Source: Own elaboration.



edit. The reworkings of the schemas and the verbal manifestation of surprise constitute ruptures and readjustments of the schemas activated earlier by the subject during the narrative progression. They have a function of retrospection and predominate in the Surprise edit. These seven types of response are cognitive imbalances that manifest the gap between the viewers' information at this point in the narrative progression and the information they would need to satisfy their expectations in relation to the plot. Thus, they establish a relationship between *fable* and *sujet*. In contrast, the other two types of response are of a very different nature and fulfil other functions. In the type of response, that we call *emotional appraisal*, the viewers label a specific element of the discourse that has caused them a strong emotional impact. In these responses, linked to some specific element of the textual surface, there is a predominance of dysphoria, as a number of them do not correspond to the cutting up of the birds: for example, the violent sound of the butcher's knife striking the small birds or the close-up image of the tearing of the meat. In many cases they are thus not responses that show narrative tension, as in the seven types above; instead, they manifest emotional tension. These cognitions therefore have to be placed in relation to the appraisal process in which the arousal is labelled verbally and thus acquires an emotional valence (Schachter & Singer, 1962). From the point of view of the cognitive response approach (Greenwald, 1968; Cacioppo & Petty, 1981), the polarity is above all negative, the Origin based on the message and the Target in the content. Finally, in the ninth type of *neutral* cognitive response, the cognition of the viewer is alien to the plot. The viewer is limited to making some type of commentary. In some cases it refers to techniques of filming and edition of the short; in others it simply describes what she sees on the screen; in others she makes thematic reflections (for example, on intensive farming or organic food). This type of response has a *neutral* function to the extent that does not demonstrate an imbalance induced by the story but a distancing or response directly related to the content of the story. The Polarity is neutral, the Origin is in part in the message or response by the subject, the Target is diverse and not related to the story. This ninth category predominates in the non-fiction edit. In conclusion, the focus of thoughts (COGP) differs depending on whether the viewer is watching a fictional or a non-fictional story. In fiction, "modified externally originated thoughts" that are triggered by the content of the story predominate, and in the target dimension, thoughts from the content of the stimulus and the source predominate. On the other hand, in non-fiction, internally originated thoughts predominate and, in the target dimension, they are focused on the audience, the medium or channel.

Second, even when the five categories of cognitive response appear in the four experimental groups (See Fig. 2), the type of cognition that predominates in each group corresponds to the type of edit or discourse structure. As well as confirming the H1 hypothesis, some new results are added. In the comparison between the informative group and the three tension groups there is a significant difference. In the three groups in which the discourse structure has been divided to provide a determined type of informational imbalance (either of suspense, curiosity or surprise), a narrative tension is produced through cognitions of prognosis, diagnosis or retrospection. In contrast, in the non-fiction group, in which there is no withholding of information during the narrative progression, two types of cognitions appear that are not notably present in the tension groups and that we have denominated above as *emotional appraisals* and *neutral* cognitions. In addition, these two types of cognitions are the most abundant of this non-fiction group (See Fig. 2).

For all the subjects (N=94) a total of 3,693 thoughts or cognitions were collected. Their percentage distribution, according to the functions they fulfilled, are: prospecting (11%), local appraisal (12%), neutral (22%), diagnosis (22%), retrospection (33%). Within the retrospections, we have to distinguish between the diagnostic retrospections and the schematic retrospections. The former are produced when the awareness of an actual fact allows the clarification of past information on which the subjects manifested their curiosity and which, in the light of new information, is now clarified (19%). The retrospection of schemas corresponds to the process of readjustment of past schemas that the new surprising information leads us to review and modify (4%). Thus a relevant fact is that the diagnostic function (characteristic of curiosity) is the most abundant of all the cognitions (52% of total cognitions).

Third, from the point of view of the audience's involvement with the character, an interesting phenomenon appears. Of the total cognitive responses collected in Fig. 2 (3,693 cognitions), in the fictional groups, an average of 227,2 cognitions per group are of the prospective, diagnostic, or retrospective type, while in the non-fiction group the average of these three types of cognitions is half (107,4 cognitions).

At the same time, while in the fictional groups, an average of 127.5 cognitions are of appraisal and neutral type, in the non-fiction group this average is three times higher (429.3). Therefore, the cognitions related to imbalances in the fictional groups are mainly of a prospective, diagnostic, and retrospective nature, while in the non-fiction group they are mainly of an appraisal and neutral type. Furthermore, concerning the content of these cognitions, we discovered the following phenomenon. 89.6% of the cognitions of the fictional groups refer to the character and the action. These are responses that verbalize the process of plot construction in the narrative progression in a dynamic of cognitions that are situated in the past, present and future of the story in its evolution towards the conclusion for the character. In contrast, for the non-fiction group, only 27.8% of cognitions refer to the character and his actions. A very significant percentage of cognitions in this factual group (72.2%) corresponds to another plane of cognitions unrelated to the plot of the story. Some are reactions of rejection to the violent images of bird sacrifice. Others express the viewer's ideas and opinions about animal husbandry techniques, ecological processes, political decisions about food, etc. These thoughts are formulated from the content but carry the origin of this viewer's reflection outside the plot (Greenwall, 1968). Thus, in the fictional groups, the viewer does not make moral evaluations about the character but situates the character in the development and resolution of the plot. On the contrary, in the non-fiction group, the receivers step out of their role as spectators and give input to their persons, expressing opinions and beliefs about the subject matter of the story. This leads him to introduce at the same time moral evaluations about the character (especially negative ones).

The following results have been obtained from the analysis of local emotions experienced during the exposure to the short and appraised in the five points of the narrative progression. In an initial analysis, to analyse the emotional response of the participants, two criteria have been used. First, the total points obtained for each type of emotion in the evaluation of the viewers in the five points appraised. Second, we have taken into account the experimental groups in which these different emotions have appeared. The

application of these criteria results in five categories of emotional response: curiosity, surprise, suspense, other emotions, lack of emotion. The category of other emotions includes various emotions. Given that they are relatively scarce in the total, that they are only found in one of the experimental groups and that they share similarities, these emotions have been combined in this category to facilitate the analysis below. Based on these considerations, three results may be observed in Fig. 3. The five categories of emotion are present in the four groups. However, the emotions of curiosity, surprise, and suspense receive the highest scores and are characteristics of the three groups of Curiosity, Surprise, and Suspense. The other two categories are minor. In the non-fiction group, curiosity and lack of emotion are predominant. In this group, the categories of other emotions and the lack of emotion obtain scores higher than the rest of the groups. This first result indicates that there are two groups; the first refers to the non-fiction edit and the second includes the other three. The ANOVA shows that the differences between the four groups are significant for suspense ( $F(3, 90)6.492, p=.001$ ), surprise ( $F(3, 90)9.090, p=.000$ ) and non-emotion ( $F(3, 90)12.276, p=.000$ ). They are not significant for curiosity ( $F(3,90)2.961, P=.036$ ) and other emotions ( $F(3,90)1.736, P=.165$ ). In the post-hoc comparisons of Scheffe it is worth noting that the differences with respect to the information group and the other three groups are significant, forming two differentiated subsets. (INF-SUS: Mean difference 9.29; Deviation Error 1.79, Sig. .000; INF-CURI: Mean difference 8.33; Deviation Error 1.68, Sig. .000; INF-SUR: Mean difference 8.10; Deviation Error 1.68, Sig. .000).

Second, an analysis has been carried out after segregating each emotion Fig. 4.a-Fig. 4e present the average score of each of the five categories of emotion for each experimental group. These results show that the emotions of suspense and curiosity predominate in Group 1 (Suspense) (Fig. 4.a, Fig 4 b). The emotion of surprise predominates in group 3 (Surprise) (Fig. 4 c). The categories of other emotions and the lack of emotion predominate in group 4 (non-fiction) (Fig. 4 d, Fig. 4 e).

Third, taking into account that we measure the emotional states during the narrative progression, and that the edit of group 3 (SUR) aims to induce surprise at the end of the story, when the spectator finally discovers event A (the trigger), which had been omitted at the start of the short, the question is to know what has occurred during the narrative progression, before the end. As included in Fig. 5, the emotion of surprise reaches its peak in the events 4 and 5, which correspond to the moment of surprise, on discovering the true identity of the leading character. With respect to what happens during the narrative progression, we see that the viewer experiences different states in events 1, 2 and 3.

To conclude this section, in addition to confirming Hypothesis 1, some phenomena of additional interest appear. In fact, the organisation of the edits of surprise, suspense and curiosity, which withheld information, lead to specific types of narrative tension, so we have to conclude that every one of these types of edit induces this specific type of narrative tension.

In the cognitive dimension, each type of story induces a specific cognitive tension, either through retrospection, anticipation or diagnostics. Similarly, emotional tension induces specific types of emotion for each type of tension story.

This contrasts with what happens in the non-fiction group. This edit, which does not withhold information and develops chronologically, does not induce narrative tension. The cognitions are of a different nature to that induced in the narrative progression and there is a lower rate of other emotions, or a lack of them.

In conclusion, although H1 (specific tension depending on the type of structure) is fulfilled, at the same time a multidimensional narrative tension phenomenon appears, characterized by a set of diverse local emotional reactions that are articulated in the whole. Narrative tension is therefore not a monolithic phenomenon according to which each story induces a single type of emotion, but rather articulates different types of emotions in a totality whose overall emotional tone is specific to each type of story.

*Narrative tension and enjoyment*

To verify our second hypothesis we analysed the global appraisals which the subjects have experienced and relate them to the local appraisals with the aim of seeing if the narrative tension that appears in the narrative progression has an influence on the global emotional, appreciative and enjoyment reactions to the short film.

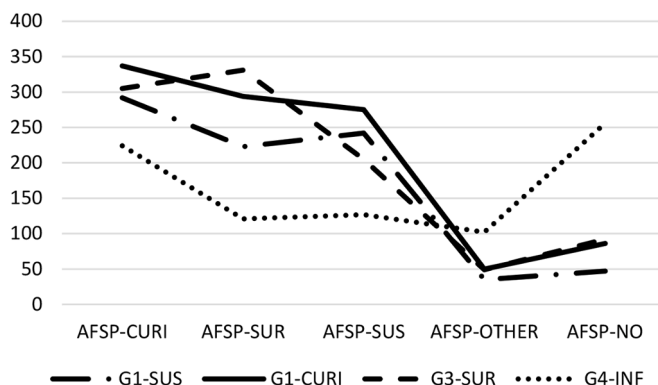


Fig. 3. Emotions experienced (EMOP) by the subjects in each group during the narrative progression. Source: Own elaboration.



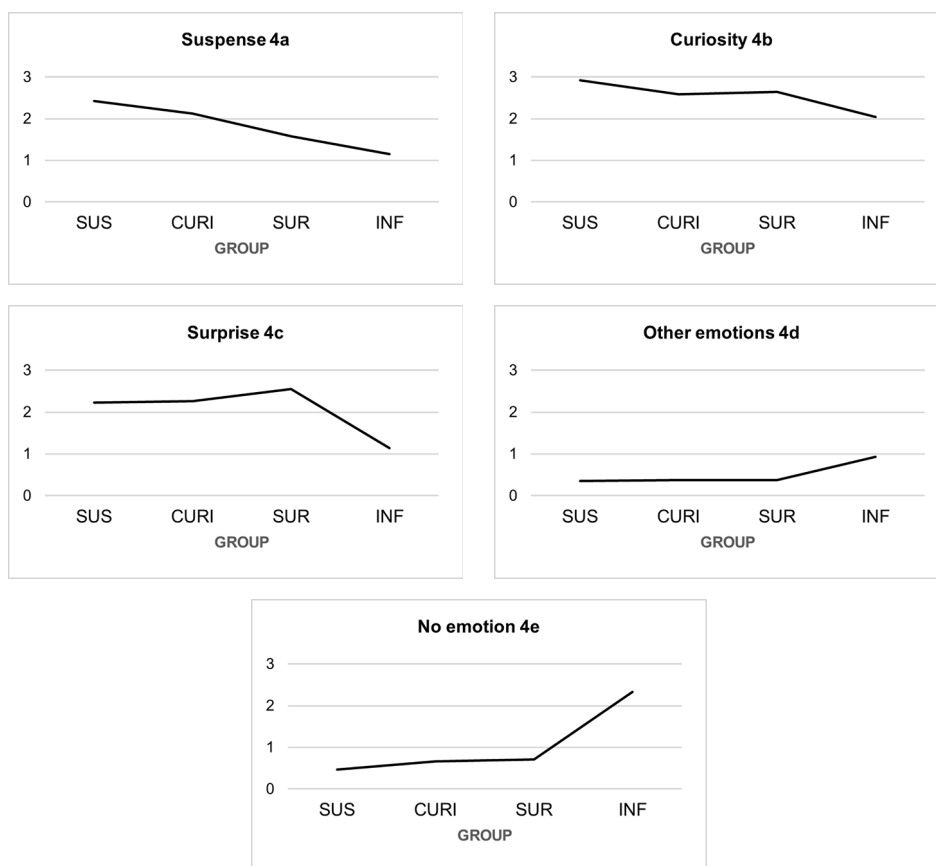


Fig. 4. Average emotion experienced: (4a) Suspense, (4b) Curiosity, (4c) Surprise, (4d) Other emotions, and (4e) No emotion, in the set of five events in the narrative progression. Source: Own elaboration.

#### Global appraisals of arousal, Affective Reaction, appreciation and engagement

Even when the level of Arousal is greater in the Surprise group (SUR) (Fig. 6a), the differences between groups are not significant in ANOVA ( $F(3, 90) 1.179, p=.322$ ). Appreciation is higher in the Suspense and Curiosity groups (Fig. 6b), although the differences between groups are not significant either ( $F(3,90) .927, p=.431$ ). Also, with respect to Affective Reaction, the differences observed (Fig. 6c), are not significant ( $F(3, 90) .701, p=.554$ ). The fact that there are no statistical differences between the groups in these three variables does not mean that the responses are the same. Arousal is an indicator of tension, so the same level of tension may be induced for very different reasons. This is the case with respect to the present research. As shown by the analysis of cognitions and emotional states during the narrative progression that sustain the arousal experienced by the subjects, they differ between the factual group and the fictional groups. We will see a second argument below.

Something similar occurs in the case of Affective Reaction. The emotional states that the subjects have manifested in the narrative progression differ between the factual group and the fictional groups. The global appraisal represented by the AFRE scale shows that in all the groups there is a similar overall emotional response, even when it is for different reasons.

Finally, in the Engagement variable (Fig. 6d), there are statistically significant differences between groups in ANOVA ( $F(3,90) 10.125, p=.000$ ). The multiple comparisons in the post-hoc Scheffe test show that these differences are due to the existence of two subgroups, one formed by the non-fiction group and the other by the other three groups. The differences between the factual group and the three fictitious groups are significant (INF-SUS: Mean difference  $-.54$ ; Deviation Error  $.14$ , Sig.  $.003$ ; INF-CURI: Mean difference  $-.67$ ; Deviation Error  $.14$ , Sig.  $.000$ ; INF-SUR: Mean difference  $-.55$ ; Deviation Error  $.13$ , Sig.  $.001$ ).

#### Relation between local emotions and global enjoyment

Finally, to assess whether there is a relationship between narrative tension and some indicators of enjoyment and entertainment, we have carried out a regression analysis to see if there is any type of relationship between the local emotions experienced during the narrative progression and the four global emotional variables. We would like to highlight three of the results included in Table 1. First, there is a statistically significant relationship between having experienced affective narrative tension of the Suspense and Surprise type during the narrative progression, and the level of Arousal reached at the end of the viewing of the short film. However, there is no relationship of this kind for the tension categories of Curiosity, Other Emotions and No Emotion. Second, there is a relationship between the affective narrative tension of Suspense, Curiosity and Surprise with the level of global Appreciation. In contrast, there is no

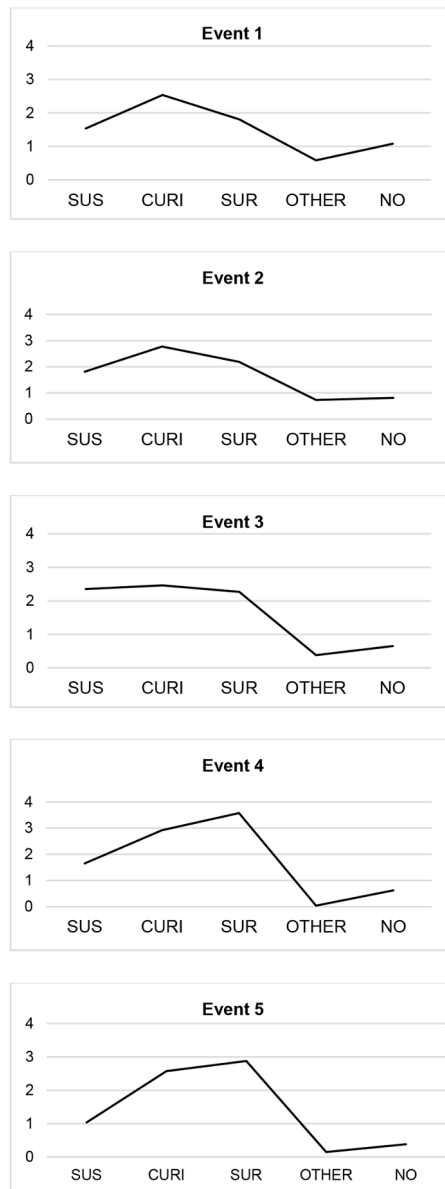


Fig. 5. Average of the emotional state experienced in each of the five local events tested in group 3 (Surprise). Source: Own elaboration.

relation between the latter and the Other Emotions and No Emotion categories. Third, there is a relation between the tension categories of Suspense and Surprise and the Engagement variable, but not for the other three categories. To interpret these results, it has to be remembered, as we saw above, that the affective tension states of Suspense, Surprise and Curiosity predominate in the three fictional groups, while Other Emotions and No Emotion do so in the non-fiction group.

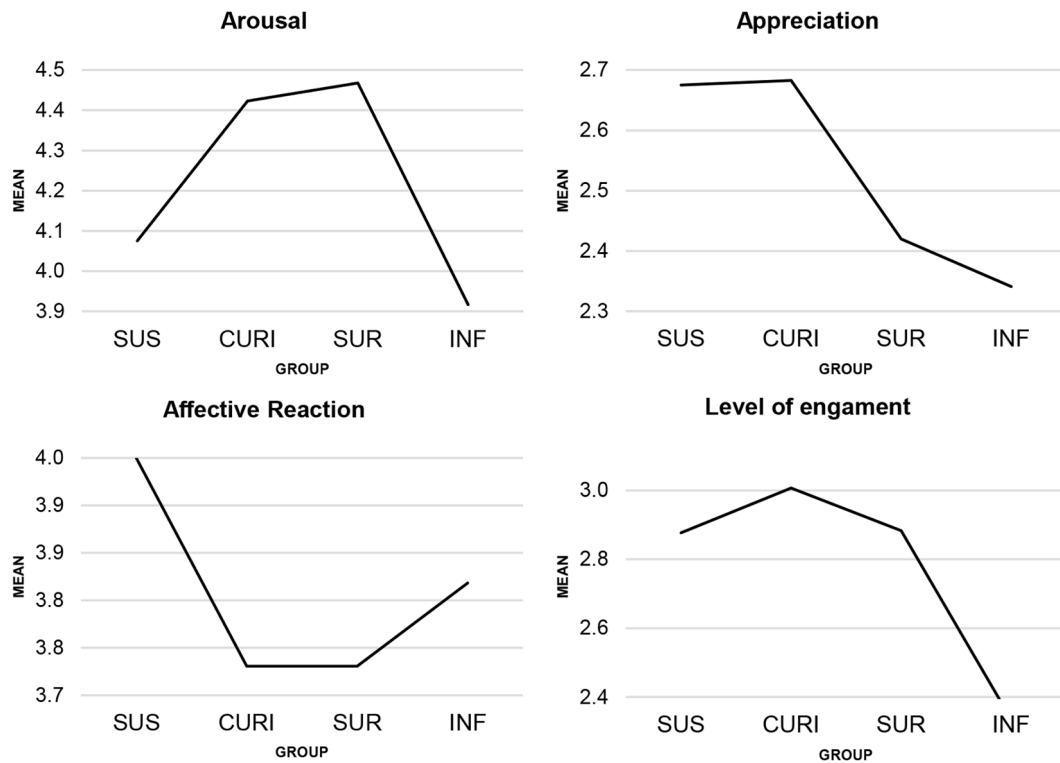
Ultimately, while local emotions in fictional stories contribute to overall enjoyment, the type of local emotions experienced in the non-fiction narrative does not contribute to the enjoyment.

**Discussion**

The results obtained provide knowledge that can advance a theory that allows us to understand the role of narrative tension in the reception of a story. The discussion is organised into five aspects that support the proposed theory.

*Tension in the narrative progression*

Until now, some studies have been conducted regarding the affective dimension, but not the cognitive dimension of narrative



**Fig. 6.** (a. Arousal level in each group. (b. Appreciation level (APR) in each group. (c. Level of Affective Reaction (AFRE) in each group. (d. Level of engagement (ENG) in each group. Source: Own elaboration.

tension. The results obtained shed light on this and demonstrate that the tension discourse structures do induce specific types of cognition in the form of anticipation, retrospection and diagnostics. Even when all these are present in the tension stories, each type predominates in a type of specific discourse structure (H1). These results confirm the general hypothesis formulated from narratology by Raphael [Baroni \(2007\)](#) on the cognitive dimension of narrative tension. However, this description of tension is not complete. The interaction between the text-oriented and the reader-oriented approach has allowed us to show that during narrative progression, the story induces narrative tension in the receiver in a double dimension. This integrates both cognitive and affective components and constitutes a process that contributes directly to the enjoyment of narrative fiction. When the story does not withhold information, cognitions of this type hardly appear; they are replaced by others in the form of discourse appraisals and neutral responses. Thus, it may be said that the information withheld in the text plays a role in the appearance of imbalances that are manifested in specific cognitions. The second result of interest is that there are abundant diagnostic cognitions linked to curiosity. They play an important role, as we will see below, concerning the emotional dimension of narrative tension.

In studying suspense and surprise, both [Baroni \(2007\)](#) and [Brewer & Lichtenstein \(1981\)](#) consider that each type of discourse induces a type of specific emotion. Brewer and Lichtenstein's study investigates the emotion of suspense in the discourse of suspense, and surprise in the discourse of surprise. However, our study shows that even though each type of discourse tension structure induces one main emotion, a multidimensional emotional response is characteristic. Second, neither [Baroni \(2007\)](#) nor [Brewer & Lichtenstein \(1981\)](#) stop to consider curiosity. However, as we have found, it has a considerable presence in the tension levels of the subjects, both in the cognitive and in the affective dimension. When we investigate the set of emotions experienced by readers as they read, a phenomenon appears that has not been observed until now and that affects not only the level of curiosity but also the functional role that it has in the genesis of narrative tension with the global emotional response.

#### *The relationship between narrative tension and enjoyment*

The results allow us to establish relations between the local response of narrative tension and the global response of enjoyment (H2).

The results indicate that experiencing suspense and surprise during the narrative progression influences the level of global enjoyment of the short film (arousal, appreciation and engagement). In contrast, curiosity, which has a strong presence in tension relations, paradoxically does not present this relationship. Its function appears different. The results indicated that, given its diagnostic nature, curiosity has an organisational function in cognitive imbalances. When these imbalances are noted, they contribute to triggering the other two cognitive processes. As we have found, in some cases it promotes anticipation, in other cases retrospection of two types (confirming previous diagnostics that reconstruct schemas).

Thus, curiosity, as considered so far, is not simply another emotion that can characterise a whole story, as is the case with suspense

**Table 1**

Relation between the local emotions experienced in the narrative progression and the four overall variables of enjoyment. Source: Own elaboration.

| EAFPtotal                 | R <sup>2</sup> | F              | B      | SE B  | β      | t      | p     |
|---------------------------|----------------|----------------|--------|-------|--------|--------|-------|
| <b>AROUSAL</b>            |                |                |        |       |        |        |       |
| constant                  | .099           | 10,058 (1, 92) | 4.975  | .259  |        | 19.188 | 0,000 |
| Suspense                  |                |                | -0,070 | .022  | -0.314 | -3.171 | 0,002 |
| constant                  | .225           | 4927 (1, 92)   | 4,893  | 0,317 |        | 15,440 | 0,000 |
| Curiosity                 |                |                | -0,051 | 0,023 | -0,225 | -2,220 | 0,029 |
| constant                  | .319           | 10,419 (1, 92) | 5,083  | 0,286 |        | 17,783 | 0,000 |
| Surprise                  |                |                | -0,074 | 0,023 | -0,319 | -3,228 | 0,002 |
| constant                  | .255           | 6,379 (1, 92)  | 4,391  | 0,134 |        | 32,816 | 0,000 |
| Other emotions            |                |                | -0,067 | 0,027 | -0,255 | -2,526 | 0,013 |
| constant                  | .001           | .098 (1, 92)   | 4,219  | 0,146 |        | 28,976 | 0,000 |
| No emotion                |                |                | 0,007  | 0,024 | 0,033  | 0,312  | 0,755 |
| <b>APPRECIATION</b>       |                |                |        |       |        |        |       |
| constant                  | .259           | 31,794 (1, 91) | 1,645  | 0,175 |        | 9,388  | 0,000 |
| Suspense                  |                |                | 0,083  | 0,015 | 0,509  | 5,639  | 0,000 |
| constant                  | .401           | 60,86 (1, 91)  | 1,182  | 0,187 |        | 6,336  | 0,000 |
| Curiosity                 |                |                | 0,105  | 0,013 | 0,633  | 7,801  | 0,000 |
| constant                  | .238           | 28,393 (1, 91) | 1,566  | 0,197 |        | 7,929  | 0,000 |
| Surprise                  |                |                | 0,084  | 0,016 | 0,488  | 5,328  | 0,000 |
| constant                  | .021           | 1,966 (1, 91)  | 2,591  | 0,100 |        | 25,896 | 0,000 |
| Other emotions            |                |                | -0,028 | 0,020 | -0,145 | -1,402 | 0,164 |
| constant                  | .001           | .119 (1, 91)   | 2,549  | 0,106 |        | 24,011 | 0,000 |
| No emotion                |                |                | -0,006 | 0,018 | -0,036 | -0,346 | 0,731 |
| <b>AFFECTIVE REACTION</b> |                |                |        |       |        |        |       |
| constant                  | .019           | 1,770 (1, 92)  | 3,644  | 0,130 |        | 28,030 | 0,000 |
| Suspense                  |                |                | 0,015  | 0,011 | 0,137  | 1,330  | 0,187 |
| constant                  | .033           | 3,154 (1, 92)  | 3,546  | 0,154 |        | 23,065 | 0,000 |
| Curiosity                 |                |                | 0,020  | 0,011 | 0,182  | 1,776  | 0,079 |
| constant                  | .032           | 3,006 (1, 92)  | 3,573  | 0,143 |        | 25,043 | 0,000 |
| Surprise                  |                |                | 0,020  | 0,011 | 0,178  | 1,734  | 0,086 |
| constant                  | .000           | .018 (1, 92)   | 3,802  | 0,066 |        | 57,177 | 0,000 |
| Other emotions            |                |                | -0,002 | 0,013 | -0,014 | -0,133 | 0,895 |
| constant                  | .081           | 8,056 (1, 92)  | 3,897  | 0,067 |        | 58,039 | 0,000 |
| No emotion                |                |                | -0,031 | 0,011 | -0,284 | -2,838 | 0,006 |
| <b>ENGAGEMENT</b>         |                |                |        |       |        |        |       |
| constant                  | .109           | 11,178 (1,91)  | 2,403  | 0,118 |        | 20,400 | 0,000 |
| Suspense                  |                |                | 0,033  | 0,010 | 0,331  | 3,343  | 0,001 |
| constant                  | .051           | 4,89 (1,91)    | 2,461  | 0,144 |        | 17,098 | 0,000 |
| Curiosity                 |                |                | 0,023  | 0,010 | 0,226  | 2,211  | 0,030 |
| constant                  | .071           | 6,984 (1,91)   | 2,432  | 0,134 |        | 18,195 | 0,000 |
| Surprise                  |                |                | 0,028  | 0,011 | 0,267  | 2,643  | 0,010 |
| constant                  | .015           | 1,369 (1,91)   | 2,724  | 0,062 |        | 44,255 | 0,000 |
| Other emotions            |                |                | 0,014  | 0,012 | 0,122  | 1,170  | 0,245 |
| constant                  | .003           | .241 (1,91)    | 2,739  | 0,065 |        | 42,115 | 0,000 |
| No emotion                |                |                | 0,005  | 0,011 | 0,051  | 0,491  | 0,625 |

in suspense stories, or surprise in surprise stories. Curiosity is present in all types of stories and fulfils a revitalising role. If curiosity can refer to the result of the plot, and thus be a general vector, it also plays a notable role during reading. One of the manifestations of the information gaps between the text and the reader are the diagnostic processes that result in some incomprehension of partial elements of the story, which does not necessarily have to affect the outcome of the plot. This process of incomprehension awakens interest and curiosity to explain this gap or partial contradiction. This result relates curiosity to the theory of interest, such as Loewenstein’s theory of emptiness (1994) or the family of knowledge emotions, a group of emotions associated with learning and exploring (Keltner & Shiota, 2003; Silvia, 2010; Silvia, 2017). The diagnostic experienced by the subjects may induce them to carry out prospectations in the form of anticipation and specific delays that respond to uncertainties. Similarly, the arrival of an unexpected element may arouse curiosity in order to explain what happened. The subject may thus activate retrospection, as occurs after experiencing surprise. This means that curiosity acts as a driver of interest connected with the emotional processes of suspense and surprise. To put it another way, the emotional response in each type of discourse provision is not monolithic, as was previously believed. There would not be a specific type of emotion (suspense or surprise) for each type of story in this case, but a multidimensional affective and cognitive response. This is characterised by a number of features. In each type of story there is an interrelation between the cognitions and emotions experienced, a connection between curiosity and other specific emotions such as suspense and surprise. Depending on the type of story, there is a greater activation of cognitive-emotional processes of this specific type of story. As shown in our results, in each type of specific story a type of cognitive process of prognosis, diagnosis or retrospection predominates, but at the same time, curiosity and other emotions also appear in each of the events of the quinary schema. This particular status of curiosity within narrative tension not only connects narrative theory to the psychology of enjoyment, but in addition establishes bridges between the psychology of interest and the psychology of enjoyment, areas that have been separate until now.

### *Imbalance, tension, and involvement with character and action*

During narrative progression, each new piece of information provided by the text impels viewers to seek a rebalancing response that is not always available at the time. This manifests itself in the types of viewer cognitions we saw above (Fig. 2). For example, recalling previous information, hypothesizing something that may happen later, modifying their previous relationship with the action and the character. They also experience different emotions in response to that information (Fig. 3), and so on. This produces, as Baroni (2007: 131) hypothesized, a dynamic of *passionate dysphoria* in which the viewers enter into a process of playful excitement (Picard, 1986) in their search for answers about the resolution and overall understanding of the story. This type of dysphoria *passionate* is present in all three types of fictional storytelling (suspense-curiosity-surprise). On the other hand, in the non-fictional edits, another type of dysphoria appears, which Baroni calls *dysphorie passionnelle* and which often has a negative polarity.

From the point of view of the involvement with the character and the moral parameters, an interesting phenomenon appears. The progressive construction of the character differs in the three fictional stories because the way of providing information to the reader differs. However, at the end of the narrative, the character traits are the same in all three fictional stories. For example, in the surprise story the deceptive character (Bal, 1997) as the first sequence that allows us to know his true identity was omitted, something that is partially known from the beginning in the suspense story and completely in the curiosity story. What is interesting is that, despite these differences, the involvement of the viewer with the character in these three types of fictional story is similar and very different from the non-fictional true story. These results show a great difference in the viewers in relation to the moral parameters of the character. While in the factual story the viewer intervenes to express opinions and evaluations about the subject matter of the story, in the fictional stories the viewer does not enter into this dynamic and remains in an attitude of *passionate dysphorie*, of excitement about the final result of the actions in which the character is involved.

In the three fictional edits, the narrative progression of the spectators is articulated according to the character and the actions in which they participate. Their responses establish a dynamic relationship between the *fabula* and the *sujet* that follows the involvement with the character (Cf Figures 1-2.). Their cognitive responses throughout the five points of the story show their progressive construction of the character's identity. In the final resolution of the story, this involvement acquires a moral character. There his true identity is revealed, and we can observe the reactions of the viewer. In the suspense and curiosity confirming and completing the identity hypothesized during the story. In surprise, on the other hand, there is a moral response when the subjects discover that the protagonist is not a bird lover but a butcher. They express their surprise and moral evaluation of the character.

On the contrary, in the non-fictional edit, there is no such involvement with the character, nor the dynamic between the *fabula* and the *sujet*. Responses of a moral nature are at a more general level, referring to opinions (on animal husbandry, ecology, etc.) and emotional evaluations in the face of images in the discourse that induce rejection (Cf Fig. 1).

The present results, converge with a corpus of previous research in which it had been shown that there is a greater suspension of moral judgment in fiction than in non-fiction (Keen, 2007; Vaage, 2013; Fast & Van Reet, 2018;). The present research further adds to that discussion the phenomenon according to which while in fiction the viewers' involvement with the character is limited to placing the character in the context of the plot he or she is trying to solve, in factual storytelling, the viewer not only reintroduces moral judgment about the character but the viewers give way to the person and thus activate their own values, opinions and moral judgments about the subject matter of the non-fiction story. If in fiction the character is at the center of the tension, in non-fiction he or she takes a back seat to a more general reflection on the problems raised by the story and which connect with real-world concerns and issues (organic food, meat consumption, etc.). Therefore, in fiction, the narrative tension of the spectators develops within the diegesis of the story (vicissitudes of the character), while in non-fiction the viewers connect the diegesis with the real world, outside the story.

Finally, another aspect refers to the provisional identity of the character and its relationship with the degree of final enjoyment experienced. In a recent study, Salgado et al. (2021) found that, in the aesthetic evaluation of bad characters, they induced greater suspense, are more captivating and entertain more than good characters. In the present investigation, the final identity is the same in the three fictional edits. However, during the narrative progression, the viewer builds a provisional identity of the character that will be ratified (CURI), readjusted (SUS) or modified (SOR) at the end of the story. This provisional identity allows the viewer to consider the character, during the narrative, "good" in SOR (because the montage leads him to think until the denouement that the character is a lover of birds and takes care of them with affection), and "bad" in SUS (he raises birds with care and then sacrifices them with a certain degree of violence) and CURI (why does he sacrifice the birds in this way, a bit cruelly?). The core question that can be raised is whether the provisional identity attributed to the character contributes to the enjoyment of the story as suggested by the research of Salgado et al. (2021).

In our case, two results are of interest. On the one hand, both the "good" and the "bad" characters induce, in the three fictional stories, cognitive and emotional responses of tension. Moreover, the overall degree of entertainment is equivalent in the three fiction groups (Figures 6). On the other hand, and more importantly, the goodness or badness of the character, the involvement with him, occurs because his identity is integrated into the plot. The positive or negative valence of the emotions that the spectator experiences from the character's actions only contribute to enjoyment to the extent that they are integrated into the plot. That is where they acquire their value in terms of enjoyment. That is why the negative emotions induced by the "bad" character during the narrative progression are not evaluated in terms of enjoyment in isolation but are integrated into the whole as a function of the plot (for example: why does the character do that bad action? what does he/she intend with that bad action? What is going to happen?). These negative emotions induce suspense or curiosity and attract the viewer, as the study by Salgado et al. (2021) also points out. Therefore, the 'goodness' or 'badness' status of the character is not processed in isolation by the viewer but according to the function that his or her actions fulfil in the plot. This process of integration thus makes the isolated negative emotions become part of an integrating totality of enjoyment and, ultimately, of positive emotions and catharsis. This conception connects with the narratological tradition since Aristotle's *Poetics*, which relates the necessary integration of the parts with the whole of the plot (sustasis). Also with the concept of function (Propp,



1969; Lévi-Stratuss, 1960; Bremond, 1973; Bermejo-Berros, 2005) that understands the action of the character according to its meaning in the development of the plot.

#### *Knowledge and emotion in narrative tension*

The results of different research showed that suspense can be evoked even when readers know how the story will end (Gerrig, 1989; Hoeken & vanVleet, Hoeken & vanVliet, 2000; Lehne & Koelsch, 2015; Delatorre et al., 2018). Suspense is not simply the result of uncertainty about the outcome. The question raised by this research suggests that the cognitive imbalance caused by the progression in the distribution of information throughout the story is not sufficient to understand the receiver's response and the re-reading phenomena. It is then a matter of knowing what is contingent.

What the present results suggest is that suspense, in its cognitive component, is contingent for suspense to be produced but it is not sufficient because it has to be accompanied by the emotion induced by the text and experienced by the reader during the narrative progression. Cognition and emotion form an inseparable duality in the process of narrative tension. This allows us to understand that, in rereading, even when there is no longer suspense (in its cognitive dimension) about the outcome, the reader experiences pleasure because the cognitive processing of the story brings back to life the emotion-induced in the first reading. Cognition and emotion are thus mutually solicited in the narrative tension. Therefore, what would explain rereading and suspense is not the cognitive process of knowing the outcome of the story, but the narrative tension generated during the narrative progression. This tension, as the results show, is a state of disequilibrium that includes both cognitive and affective aspects that give the spectator's experience a lively component of passionate dysphoria (*dysphorie passionante*), which connects the enjoyment of narrative fiction with human ludic activities. Therefore, what this research suggests is that narrative tension does not depend only on the expectation of a resolution, as Baroni came to suggest in his definition of narrative tension or Phelan's first vector, but the second vector is also necessary (Shang & Phelan, 2019; Hansen et al., 2017) in its passionate dimension of the act of reading, that is, the involvement of emotions that appear during reading. The passion of the act of reception does not emerge exclusively from cognition but from the cognition-emotion interaction during the narrative progression. This passionate dimension (which cannot be separated from the cognitions that accompany it) can explain the phenomena of rereading because through it the emotions of enjoyment experienced during the narrative progression of the first reading are relieved.

#### *Theory of the multidimensional narrative tension of enjoyment*

These results lead us to formulate a theoretical proposal that describes the properties of narrative tension and posits a relationship between various fields interested in the phenomenon of reception. From a theoretical point of view, this proposal allows a connection of fields that until now have been separated: the fields of theory of curiosity (Berlyne, 1960), the theory of interest (O'Keefe & Harackiewicz, 2017; Silvia, 2006), and the theory of enjoyment (Eden, 2017). All this contributes to advancing our understanding of the psychological phenomenon of narrative entertainment and the processes of reading in which narrative theory is also interested.

This theoretical proposal postulates, as the narrative progresses, that there is a gap between the information provided by the text and the information that the reader needs to reach an outcome. An affective-cognitive gap in narrative tension appears. This may be characterised by the following features: (1) Cognition and emotion form an inseparable duality in the process of narrative tension. The stress trigger can be either cognitive (something related to the *fabula* occurs) or emotional (a shocking image and/or sound at the level of the Subject, as when we see and hear the character energetically cutting and dismembering the chickens). In narrative progression, the reader activates a series of types of cognitive and affective responses that fulfil a function of prospection, diagnosis, or retrospection. Depending on the type of discourse structure, one of these functions will finally predominate. (2) When the end of the narration has been satisfied and/or the imbalances leading to narrative tension have been resolved, the subject experiences enjoyment or entertainment. (3) Conversely, when the story does not lead to gaps manifested in the narrative tension, the reader does not experience enjoyment or entertainment. (4) The emotions of suspense and surprise that appear during the narrative progress influence the resulting enjoyment. For its part, the emotion of curiosity has an important and specific role in the reading process. Curiosity is a necessary but not sufficient emotion to experience narrative entertainment. It functions as an organiser of information that the story provides during the narrative progression. Curiosity is manifested through cognitions of interrogation, uncertainty, and incomprehension, and through the emotion of curiosity. This status of narrative tension contributes to trigger other cognition-emotional tension states. One of them is suspense. The progressive result that does or does not confirm the prognostics made during the narrative progression produces entertainment. Additionally, the surprise experienced by the apparition of unexpected information may trigger retrospective cognitive activities that try to explain what has happened. Thus, curiosity is not in itself an emotion that leads to entertainment, but it is activated during the narrative progression. It is at the service of the emotions of suspense and surprise, which as they are experienced and duly resolved, provide the experience of enjoyment and entertainment.

#### **Disclosure statement**

No potential competing interest is reported by the authors.

#### **Appendix**

##### ***Appendix. Links to Media content used in the research***

(1) Suspense version: <https://youtu.be/Za5zsXHHO8A>

(2) Surprise version: <https://youtu.be/H4ty94nJyWw>

- (3) Curiosity version: <https://youtu.be/zvQerkRi7-Q>  
 (4) Non-fictional version: <https://youtu.be/Ot8oGzkMlmk>

## References

- Adam, J. M. (2011). *The narrative sequence: history of a concept and a research area*. University of Lausanne. [https://www.unil.ch/files/live/sites/fra/files/shared/The\\_narrative\\_sequence.pdf](https://www.unil.ch/files/live/sites/fra/files/shared/The_narrative_sequence.pdf).
- Admony, V. G. (1969). *Syntagmatic tension in poetry and prose*. Nauka.
- Alber, J., & Fludernik, M. (2010). In J. Alber, & M. Fludernik (Eds.), *Postclassical Narratology: Approaches and Analyses*. The Ohio State University Press.
- Bal, M. (1997). *Narratology: Introduction to the Theory of Narrative*. University of Toronto Press.
- Bally, Ch. (1965). *Le langage et la vie*. Droz.
- Baroni, R. (2007). *La tension narrative*. Seuil.
- Baroni, R. (2009). Réticence de l'intrigue. In J. Pier & F. Berthelot (dir.), *Narratologies contemporaines*. Editions des archives contemporaines, 198-213.
- Baroni, R. (2011). Tensions et résolutions: musicalité de l'intrigue ou intrigue musicale? *Cahiers de Narratologie*, 21, 1–13. <https://doi.org/10.4000/narratologie.6461>
- Baroni, R. (2015). Plots in Life and Fiction: A Cognitive Reconceptualization. *Knjževna Istorija (Literary History)*, 47(155), 41–56. <https://tinyurl.com/ykscsd9m>.
- Baroni, R. (2017). *Les Rouages de l'intrigue. Les outils de la narratologie postclassique pour l'analyse des textes littéraires*. Slatkine.
- Barthes, R. (1970). *S/Z*. Seuil.
- Baroni, R., & Revaz, F. (2016). In R. Baroni, & F. Revaz (Eds.), *Narrative Sequence in Contemporary Narratology*. The Ohio State University Press.
- (Editor-in-Chief) Bartsch, A. (2017). Content Effects: Entertainment (Associate Editors). In P. Rössler, C. A. Hoffner, & L. van Zoonen (Eds.), *The International Encyclopedia of Media Effects*. JohnWiley & Sons. <https://doi.org/10.1002/9781118783764.wbieme0128>.
- Berlyne, D. E. (1960). *Conflict, arousal, and curiosity*. McGraw-Hill.
- Bermejo-Berros, Jesús (2005). *Hombre y Pensamiento. El giro narrativo en Ciencias Sociales y Humanas*. Laberinto-Comunicación.
- Bremond, Claude (1973). *Logique du récit*. Seuil.
- Brewer, W., & Lichtenstein, E. (1981). Event schemas, story schemas, and story grammars. In A. Baddeley, & J. Long (Eds.), *Attention and performance IX*. Lawrence Erlbaum Associates.
- Brewer, W., & Lichtenstein, E. (1982). *Stories are to entertain: A structural-affect theory of stories*. University of Illinois and Urbana-Champaign.
- Brooks, P. (1992). *Reading for the Plot. Design and Intention in Narrative* [1984]. Harvard University Press.
- Bruner, G. C. (2009). *Marketing Scales Handbook: A Compilation of Multi-item Measures for Consumer Behavior & Advertising Research*. GCBI Productions. Vol. 5.
- Busselle, R., & Bilandzic, H. (2009). Measuring Narrative Engagement. *Media Psychology*, 12(4), 321–347. <https://doi.org/10.1080/15213260903287259>
- Cacioppo, J. X., & Petty, R. E. (1981). Social psychological procedures for cognitive response assessment: The thought-listing technique. In X. V. Merluzzi, C. R. Glass, & M. Genest (Eds.), *Cognitive assessment* (pp. 309–342). Guilford Press.
- Candel, D. (2018). The rhythms of narrative tension and its cultural satisfaction. *English Text Construction*, 11(2), 169–199. <https://doi.org/10.1075/etc.00008.can>
- Courtés, J. (1991). *Analyse sémiotique du discours. De l'énoncé à l'énonciation*. Hachette.
- Dannenberg, H. P. (2005). Plot (Dir.). In D. Herman, M. Jahn, & M.-L. Ryan (Eds.), *The Routledge Encyclopedia of Narrative Theory* (pp. 435–437). Routledge
- Dannenberg, H. (2008). *Coincidence and Counterfactuality: Plotting Time and Space in Narrative Fiction*. University of Nebraska Press.
- Delatorre, P., León, C., Salguero, A., Palomo-Duarte, M., & Gervás, P. (2018). Confronting a Paradox: A New Perspective of the Impact of Uncertainty in Suspense. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.01392>. Article 1392.
- Ducoffe, R. H. (1996a). Advertising Value and Advertising on the Web. *Journal of Advertising Research*, 36(5), 21–35.
- Ducoffe, R. H. (1996b). How Consumers Assess the Value of Advertising. *Journal of Current Issues and Research in Advertising*, 17, 1–18.
- Eden, A. (2017). Entertainment Effects: Enjoyment. *The International Encyclopedia of Media Effects* (pp. 1–13). John Wiley & Sons, Inc.. <https://doi.org/10.1002/9781118783764.wbieme0163>
- Fast, A. A., & Van Reet, J. (2018). *Cognitive Development*, (45), 40–47. <https://doi.org/10.1016/j.cogdev.2017.11.003>
- Fill, A. (2003). Linguistic Devices for the creation of suspense. In B. Kettmann (Ed.), *Expanding circles, transcending disciplines, and multimodal texts* (pp. 263–276). Verlag.
- Fludernik, M. (1996). *Towards a 'Natural' Narratology*. Routledge.
- Fontanille, J., & Zilberberg, C. (1998). *Tension et signification*. Mardaga.
- Garrett, M. (2018). *The Cambridge companion to narrative theory*. Cambridge University Press.
- Gerrig, R. J. (1989). Suspense in the Absence of Uncertainty. *Journal of Memory and Language*, 28, 633–648.
- Greenwall, A. G. (1968). Cognitive Learning, Cognitive Response to Persuasion, and Attitude. In A. G. Greenwald, T. C. Brock, & T. M. Ostrom (Eds.), *Psychological foundations of attitudes*. Academic Press. <https://doi.org/10.1016/B978-1-4832-3071-9.50012-X>.
- Greimas, A. J., & Courtés, J. (1979). *Sémiotique: dictionnaire raisonné de la théorie du langage*. Hachette.
- Greimas, A. J., & Fontanille, J. (1991). *Sémiotique des passions*. Seuil.
- Hansen, P. K., et al. (2017). *Emerging Vectors of Narratology*. De Gruyter.
- Hébert, L. (2007). *Le plaisir des sens: euphories et dysphories des signes*. Presses de l'Université de Laval.
- Herman, D. (1999). *Narratologies: New Perspectives on Narrative Analysis*. Ohio State University Press.
- Herman, D. (Ed.). (2003). *Narrative Theory and the Cognitive Sciences*. Center for the Study of Language and Information.
- Herman, D., Hühn, P., Schmid, W., Schönert, J., et al. (2014). Cognitive Narratology. In P. Hühn, P. J., W. Schmid, & J. Schönert (Eds.), *The Handbook of Narratology* (pp. 46–64). De Gruyter.
- Hoeken, H., & van Vliet, M. (2000). Suspense, curiosity, and surprise: How discourse structure influences the affective and cognitive processing of a story. *Poetics*, 26, 277–286. [https://doi.org/10.1016/S0304-422X\(99\)00021-2](https://doi.org/10.1016/S0304-422X(99)00021-2)
- Hühn, P., Plier, J., Schmid, W., & Schönert, J. (2009). *Handbook of Narratology*. Walter de Gruyter.
- Ionescu, A. (2019). Postclassical Narratology: Twenty Years Later. *A Journal of Literary Studies and Linguistics*, 11, 5–34. [https://www.researchgate.net/publication/338357670\\_Postclassical\\_Narratology\\_Twenty\\_Years\\_Later](https://www.researchgate.net/publication/338357670_Postclassical_Narratology_Twenty_Years_Later).
- Keen, S. (2007). *Empathy and the Novel*. USA: Oxford University Press.. [https://books.google.de/books?id=qdckVHP\\_nRAC](https://books.google.de/books?id=qdckVHP_nRAC).
- Keltner, D., & Shiota, M. N. (2003). New displays and new emotions: A commentary on Rozin and Cohen (2003). *Emotion*, 3, 86–91. <https://doi.org/10.1037/1528-3542.3.1.86>
- Labov, W., & Waletzky, J. (1967). Narrative analysis: oral versions of personal experience. In J. Helm (Ed.), *Essays on the Verbal and Visual Arts* (pp. 12–44). University of Washington Press.
- Lehne, M., & Koelsch, S. (2015). Toward a general psychological model of tension and suspense. *Frontiers in Psychology*, 6(79), 1–11. <https://doi.org/10.3389/fpsyg.2015.00079>
- Leshchenko, H. (2018). Narrative tension within the framework of cognitive modeling. *Cognition, Communication, Discourse*, 16, 51–63. <https://doi.org/10.26565/2218-2926-2018-16-04>
- Lévi-Stratuss, Claude (1960). *Anthropologie structurale II*. Paris: Plon.

- Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, 116(1), 75–98. <https://doi.org/10.1037/0033-2909.116.1.75>
- Morgan, J. M. (2013). Emplotment, Plot and Explotment: Refining Plot Analysis of Biblical Narratives from the Reader's Perspective. *Biblical Interpretation*, 21(1), 64–98. <https://doi.org/10.1163/15685152-1049A0004>
- Myshkina, N. L. (1998). *The inner life of the text: mechanisms, forms, characteristics*. Izdatel'stvo Permskogo universiteta.
- O'Keefe, P. A., & Harackiewicz, J. M. (Eds.). (2017). *The science of Interest*. Springer. <https://doi.org/10.1007/978-3-319-55509-6>.
- Phelan, J. (1989). *Reading People, Reading Plots: Character, Progression, and the Interpretation of Narrative*. The University of Chicago Press.
- Phelan, J. (2007). *Experiencing Fiction: Judgments, Progressions, and the Rhetorical theory of Narrative*. Ohio State University Press.
- Phelan, J., & Rabinowitz, P. J. (2005). *A companion to Narrative Theory*. Blackwell Publishing.
- Picard, M. (1986). *La lecture comme jeu: essai sur la littérature..* Éd. De Minuit.
- Propp, Vladimir (1969). *Morphologie du conte*. Seuil.
- Puckett, K. (2016). *Narrative Theory: A Critical Introduction*. Cambridge University Press.
- Salgado, M., Wagner, V., & Menninghaus, W. (2021). A good, a bad, and an evil character: Who renders a novel most enjoyable? *Poetics*, 87. <https://doi.org/10.1016/j.poetic.2021.101550>. Article 101550.
- Schachter, S., & Singer, J. E. (1962). Cognitive, Social, and Psychological Determinants of Emotional State. *Psychological Review*, 69, 379–399. <https://doi.org/10.1037/h0046234>
- Shang, B. (2011). *Pursuit of Narrative Dynamics*. Peter Lang.
- Shang, B., & Phelan, J. (2019). Rhetorical Theory of Narrative and Contemporary Narrative Poetics: A Conversation with James Phelan. *Frontiers of Narrative Studies*, 5(1), 1–10. <https://doi.org/10.1515/fns-2019-0001>
- Shen, D. (2014). *Style and Rhetoric of Short Narrative Fiction: Covert Progressions Behind Overt Plots*. Routledge.
- Silvia, P. J. (2006). *Exploring the psychology of interest*. Oxford University Press.
- Silvia, P. J. (2010). Confusion and interest: The role of knowledge emotions in aesthetic experience. *Psychology of Aesthetics, Creativity, and the Arts*, 4, 75–80. <https://doi.org/10.1037/a0017081>
- Silvia, P. J. (2017). Curiosity (2017). In P. A. O'Keefe, & J. M. Harackiewicz (Eds.), *The science of Interest*. Springer. <https://doi.org/10.1007/978-3-319-55509-6>.
- Sternberg, M. (1978). *Expositional modes and temporal ordering in fiction*. Johns Hopkins University Press.
- Todorov, T. (1971). *Poétique de la prose*. Seuil.
- Tomashevsky, B. (1965). Thematics. In L. T. Lemon, & M. J. Reis (Eds.), *Russian Formalist Criticism* (pp. 61–98). University of Nebraska Press (Original work published 1925).
- Toolan, M. (2009). *Narrative Progression in the Short Story*. John Benjamins Publishing Company.
- Vaage, M. B. (2013). Fictional reliefs and reality checks. *Screen*, 54(2), 218–237. <https://doi.org/10.1093/screen/hjt004>
- Vorderer, P., Wulff, H. J., Friedrichsen, M., et al. (1996). In P. Vorderer, H. J. Wulff, & M. Friedrichsen (Eds.), *Suspense: conceptualizations, theoretical analyses, and empirical explorations*. Routledge.
- Wolke, J., & Pelzer, E. (2020). Cognitive Assessment: Think-Aloud and Thought-Listing Technique. *The International Encyclopedia of Media Psychology*. Wiley. <https://doi.org/10.1002/9781119011071.iemp0048>
- Wundt, W. (2012). *Principles of Physiological Psychology*. Nabu Press (Original work published 1911).
- Yeltsova, M. N. (2006). *Categories of tension and tenseness in the simple affirmative sentence*. Permskij Tekhnicheskij Universitet (In Russian).
- Yudina, T. V. (1990). *Kategoriya napryazhennosti i sredstva ee vyrazheniya* [Category of tension and the means of its manifestation]. Leningradsky gosudarstvennyy pedagogicheskij institut im. A. I. Gercena.
- Zilberberg, C. (2006). *Éléments de grammaire tensive*. Presses Universitaires de Limoges.

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