

# Influence of Deautomatization on the Narrative Tension and the Enjoyment Experience of Audiovisual Stories

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Literary theory has investigated what it is in the text that constitutes its literariness. From this text-oriented approach, it has been postulated that deautomatization is a core textual mechanism to ensure that the text produces aesthetic effects on the reader. On the other hand, from a reader-oriented approach, psychology and communication have evaluated these effects from the point of view of entertainment theory. The perspectives have evolved in parallel. However, both perspectives are complementary and necessary for understanding the complex phenomenon of the production and consumption of narratives. This research, adopting a perspective at the intersection between text-oriented and reader-oriented approaches, has investigated the functional relationship between the textual mechanisms of deautomatization and the enjoyment response. We created an audiovisual story with two versions, one automatized and the other deautomatized, and presented it to two groups of participants ( $N = 305$ ). The results confirm the hypothesis which posits that deautomatization produces an experience of estrangement that makes the reader direct attention toward the form. In this process, the world of the text and the world of the reader are brought together, which manifests as a cognitive and emotional phenomenon of narrative tension that seeks to resolve the disequilibrium created. When the reader resolves the estrangement, they experience enjoyment. Therefore, deautomatization is a textual mechanism capable of inducing narrative tension and enjoyment. With this empirical support, the contemporary appeal of the concept of deautomatization takes on renewed relevance for the psychology of aesthetics and narrative art.

**Keywords:** deautomatization, narrative tension, entertainment, psychology of aesthetics, equilibration

From a text-oriented approach, criticism and literary theory, as well as narratology, have investigated what it is in the text that constitutes its literariness—what makes the text produce aesthetic effects on the reader. In turn, from a reader-oriented approach, psychology and communication have explored the psychological effects on the reader in their encounter with the text, particularly their experience of enjoyment. Both perspectives, anchored in different scientific fields, have evolved in parallel. However, both participate in a complementary and necessary way in elucidating the complex phenomenon of the production and consumption of stories.

The present research is situated at the intersection of both perspectives, as both interpellate each other to explain the complex phenomenon of the aesthetic experience of narrative fiction. One of the core mechanisms that the text-oriented approach has postulated, as an explanation for the induction of aesthetic effects in the receiver, is deautomatization. For its part, the reader-oriented approach has evaluated these effects through entertainment theory. The general

objective of this research is to investigate the possible functional relationship between deautomatization and entertainment—between the textual mechanisms of deautomatization and the enjoyment response. There is no research that has approached this study experimentally with audiovisual content designed to test this text–receptor relationship in a controlled manner. This study can contribute to deepening our understanding of the relationship between the mechanisms of deautomatization, the aesthetic experience, and the configuration of entertainment theory under construction.

## Deautomatization

Viktor Shklovsky (1914, 1917) introduced the term *ostranenie* to refer to the phenomenon of deautomatization. Although the literal translation of “*ostranenie*” is “estrangement,” this is a particular form of deautomatization (Sammartin Ortí, 2008). Shklovsky starts from the idea that our activity in the everyday world leads to a perceptual automatism by which we assimilate reality without dwelling on the formal object of that perception. Deautomatization or defamiliarization would consist of the obscuring of the form by means of different stylistic devices used by the creator. In this way, the work of art turns the known into the strange, rendering it unknown. In this process of deautomatization, the artistic experience consists of redirecting attention to form and giving it a new reality. The form (*siuzhet*) is a construction whose result is the text perceived by the reader. It is equipped with an interactive structure composed of a series of levels (lexical, morphological, syntactic, semantic, etc.). This structure, with its visual and sound codes, is neither static nor

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defined, but it is dynamic both in movement as well as in its interaction with the reader who produces the form.

Literary criticism and theory have proposed different concepts that contribute to the theoretical framework of the notion of deautomatization: distancing effect (Brecht, 1966) shock (Benjamin, 2018), organic work-symbolic versus nonorganic work-allegorical (Bürger, 2010), and contradiction (Vygotsky, 1974). In short, deautomatization is a technique used by the artist to introduce a break in the automatic processing of the text. This fracture leads to a different type of processing that directs attention to the text itself and thus allows the discordant event to be interpreted. There are two types of texts. The first type is automatic texts, in which the reader is expected to follow the events of the story, which is characterized by the successive coherence of its parts and its integration into the whole. In contrast, a deautomatized text is one that introduces events that are discordant with the rest of the elements of the text. The hypothesis that the text-oriented approach proposes is that the reader, upon perceiving the deautomatizing element, would experience estrangement (Shklovsky), distancing (Brecht), shock (Benjamin), or contradiction (Shklovsky), for which reason they would be impelled to seek the meaning and integration of the discrepant element in relation to the whole. In this way, they would redirect their attention to the text. According to some authors (e.g., Sanmartín Ortí, 2008; Shklovsky, 1917), this process of deautomatization would be at the basis of the aesthetic experience. In turn, the estrangement would correspond to the psychological response of the reader to the deautomatization that the author introduced into the text. Therefore, to validate the hypothesis put forward by the text-oriented approach, it is necessary to analyze the reader's psychological response to the deautomatization of the text. Based on the acquired cultural codes, the spectator who is exposed to an audio-visual narrative fiction seeks to follow a story that entertains them. Their initial purpose is not to scrutinize its form. That said, according to the formalist hypothesis, the introduction of a deautomatizing stimulus during the exposition of the story would have a similar effect to that of redirecting attention to form or onto the structure of the text itself. This would lead the reader to modify their interpretation of the text. The question that arises is to what extent deautomatization influences the degree of entertainment experienced by the reader.

## Diegesis

As Bermejo and López (2013) have argued, diegesis has two levels. One, general and implicit, is activated from the beginning of the reading, and it creates the framework of a possible world in which the story is located. On this level, diegesis is equivalent to the fictional universe corresponding to the possible world activated by the text. Diegesis on this plane is broader than the story being told and underlies it. A second, more restricted level of diegesis is that which is explicitly represented in the text, thus coinciding with the narrative evoked by the story. Between the implicit diegesis and the diegesis explicitly represented in the text, a dynamic is established throughout the reading process that makes the reader, depending on their interpretative needs and successive understanding of the text, open to activation and to making explicit elements of the diegetic universe that had remained implicit until that point in the reading. This process of updating the diegesis during narrative progression illustrates the dynamic, interactive, and constructive activity

of reading. This explains why, to define diegesis, it is necessary to scrutinize not only the text but also the processes of reception. In short, in this conception, the diegesis of a story is the activation of a possible world that is not only a spatiotemporal framework for the story but also a continuous, inhabited world, without gaps and blanks (in the sense of Sternberg, 1978, 2003, p. 362). This possible world can be made explicit and concrete throughout the reading. The representation constructed throughout this process includes the story. In other words, the story is the part of the diegesis that is explicitly represented in the text. The diegesis is thus the world that we infer from the specific and incomplete elements provided by the story. The reader fills in the gaps in the story in a process that links the elements that are and are not in the story (Ducrot, 1997). This process is necessary for the reader to be able to configure and give intelligibility to the plot. The interpretation of both the actions and the intentions and purposes of the characters (Burke, 1969), which encourage the subjunctivization of which Bruner (1990) speaks, could not be done without situating all this within the framework defined by the possible laws deducible from the activated diegetic world. Finally, the diegetic world is not abstract but concrete in the sense that the part of the diegesis that is represented in the story illustrates the type of diegetic world in which the story is spatially and temporally located.

## Transportation and Enjoyment

From the reader-oriented approach, the reader's response to narrative fiction has been framed in terms of the entertainment effects it produces. According to Gerrig (1983), transportation is conceived as a convergent process, where all mental systems and capacities become focused on events occurring in the narrative (Green & Brock, 2000, p. 701). The transportation will take place in the diegesis where the story unfolds.

The transportation of the reader into the diegetic universe to which the text invites them means that, just as in the real world, this universe has its own spatiotemporal laws and a possible field of action. This provides, as we have defined previously, an automatic route through the development of the plot. Everything that happens there forms part of this diegetic universe. However, the artist may introduce devices (in passing from a fable to a *siuzhet*), which alter the laws and possibilities of that diegetic world, either because they do not belong to that world at the level of the story, or because there is some kind of stylistic figure in the discourse and wording that alters the form of the text. Altering the diegesis by any of these means constitutes a strange, extradiegetic element. As we hypothesize and test in this research, we postulate that the introduction of this extradiegetic element is likely to deautomatize the text and induce narrative tension that can lead to an entertainment experience. For the reader to perceive the deautomatizing element, it is necessary to follow a transportation process in the diegesis that allows the reader to follow the course of the story. This process produces a phenomenon of narrative tension that results from evaluating what happens in the story (Bermejo-Berros et al., 2022).

## Story Structure and Narrative Tension

Narrative theory has evolved considerably in recent years. The conception strongly influenced by structuralism considered the text a finished structure to be assimilated by the reader. This static

conception of story has given way to a dynamic conception (Alber & Fludernik, 2010; Ionescu, 2019). The text is actualized during narrative progression (Biwu & Phelan, 2019; Phelan, 1989, 2007; Toolan, 2009). The narrative sequence is dynamic (Baroni & Revaz, 2016), and for this to be achieved, the reader must take part. This renewed conception connects with Shklovsky's perspective. Contrary to the limited conceptions of Russian formalism in the West, for Shklovsky, what is important in the artistic text is not so much the form as the movement it creates (Shklovsky, 1923/1973). For this process to take place, the reader must participate.

Literary theory has proposed three deautomatizing procedures that modify the automatic structure of the story (Sanmartín Ortí, 2021; Shklovsky, 1970) postulating that they would induce a response of estrangement. In the first type (illustrated by the hyperbaton), the parts of the text are rearranged temporally. This type of reorganization introduces the enigma that we observe in suspense, surprise, and curiosity (Sternberg, 2006). The second deautomatizing device is semantic and consists of comparing two series that are semantically contrary (oxymoron) or dissimilar to each other. In the juxtaposition of these two sequences, contrasts are created which impel the reader to look for the link that connects them. In the third device, which makes use of synecdoche, an unusual or displaced feature replaces the whole and gives it a new overall meaning (Shklovsky, 1970, pp. 67–68). Shklovsky referred to these deautomatizing mechanisms as “the technique of making form difficult” (*priēm zatrudnennoj formy*) because the formal obstacle that these deautomatizing devices introduced during reading would prolong the process of perception (Shklovsky, 1917).

In a previous study, we delved into the first type of deautomatization by temporal realignment of the parts of the text (Bermejo-Berros et al., 2022). That study has provided empirical evidence of the psychological effects of deautomatization. In this way, this first type of deautomatization reveals a phenomenon of inducing narrative tension that includes a multidimensional response configured by cognition and emotion. Based on this study, we have formulated the multidimensional narrative tension theory of enjoyment (MUNTE).

In order to complete the analysis of the hypotheses postulated about the psychological effects of artistic deautomatization, it would be necessary to extend the study to the other two deautomatization methods that have not yet been studied from a psychological perspective. That study would permit us to determine if these two deautomatizing techniques also induce (or not) the narrative tension phenomenon and what their characteristics might be.

## The Processes of Assimilation and Accommodation During Narrative Progression

From the point of view of the psychology of aesthetics, in order to understand the mechanisms and the function of creativity in narrative art, just as in order to verify that which occurs from our exposure to them, it is necessary to relate the previous sections' concepts to those more general explanatory constructs that allow for describing and understanding the interaction of people with art. Hanfstingl (2019) has argued regarding the pertinence of the assimilation/accommodation construct in the processes of adaptation. Piaget popularized the terms assimilation, accommodation, and equilibration among the psychological scientific community in his theory of cognitive development. Assimilation refers to the process by which a subject incorporates a perceived stimulus into existing schema.

Accommodation refers to the process by which the subject adjusts familiar schema or creates a new schema based on the previous one in order to accept and accommodate the new object when it fails to conform to the subject's schema (Piaget, 1975). This construct is relevant to the present study because our work is about understanding how the introduction of an off-putting stimulus that cannot be automatically assimilated into the activated diegesis's schemas influences the spectator, and how the spectator works to accommodate it, recalibrating both processes, and in this way achieving an adequate adaptation process, or in other words, a satisfactory interaction with the audiovisual story.

In a recent systematic overview of psychological fields using assimilation and accommodation to explain developmental and adaptation processes, Hanfstingl et al. (2022) identified 11 categories that have dealt with these concepts. None corresponds to the field of aesthetic psychology. In that overview, they have found two white spots on the research map that should be focused on in future work): On the one hand, the need to better understand the interdependence and synchronicity of both processes. When do individuals assimilate, and when do they accommodate in their interaction with the environment? Many authors state that assimilation is the easy-going knowledge-driven default mode connected to positive affect; when assimilation does not work, the individual starts stimulus-driven accommodation. How do individuals “realize” that it is time to accommodate? and to define specific cutoffs, so to speak, when one process overtakes the other. On the other hand, how are these processes relate to affect? Do they cause affect, are they caused by affect, or are they only accompanied by affect, without interaction? Which processes run unconsciously and implicitly, and which consciously and explicitly? Hanfstingl et al. (2022, p. 332). In relation to this double grouping of unresolved questions, the present study can contribute elements worth discussing from the aesthetic psychology field because its methodology implements a dynamic of transition between assimilation and accommodation that requires adaptive regulating responses both cognitive and affective from the participant.

## Objectives and Hypotheses

The general objective of this research is to investigate whether deautomatizing the diegesis of an audiovisual story induces two interconnected phenomena. The first of these is narrative tension, whose cognitive and emotional expression is one of estrangement, distancing, shock, disorganization, or contradiction. The second of these is to check whether the estrangement that can occur during exposure to the diegesis of a deautomatized story is an epiphenomenon or whether, in contrast, it moderates the entertainment experience, the aesthetic experience, and contributes to adaptive processes through assimilation/accommodation in the viewer's interaction with the story.

In short, this research seeks to investigate the other two deautomatizing procedures that, to date, have not been investigated from a psychological perspective. Based on this general objective, we will pose three research questions and their respective hypotheses.

First (Research Question 1), the aim is to find out whether deautomatization induces estrangement and whether this manifests itself in cognitive-emotional narrative tension, which would make it possible to create the conditions for reconfigurational catharsis in the

interaction with the story (Bermejo Berros, 2005a). From the MUNTE (Bermejo-Berros et al., 2022), it is proposed that the discordant elements of the story produce a mental disequilibrium in the reader, who is impelled to integrate them into the whole. To do so, the reader activates a set of mental cognitive-emotional responses. According to the formalists, deautomatization would have the effect of redirecting attention to the form, which gives the text a new dimension. This implies a process of cognitive elaboration on the part of the reader. At the same time, there would be an emotional response. For Vygotsky (1974), this contradiction between form and content would produce a process of catharsis. This is not a mere emotional discharge but a reworking of the content that makes the encounter between the world of the reader and the world of the text possible. Along the same lines, Bermejo-Berros et al. (2022), through empirical research, have shown how deautomatization through the mechanism of the temporal readjustment of form induces disequilibrium of narrative tension that includes a multidimensional response shaped by cognitions and emotions. Therefore, we can posit:

*Hypothesis 1 (H1): Deautomatization through the device of juxtaposing two contrary semantic sequences induces narrative tension by estrangement.*

Second (Research Question 2), the aim is to find out whether, as is affirmed by formalist, cathartic and narrative tension theories, deautomatization induces greater cognitive and emotional complexity, given that the perception of disequilibrium increases the degree of arousal and can induce a greater external and/or internal mental orientation. Thus, the following hypothesis is put forward:

*Hypothesis 2 (H2): Deautomatization through the simultaneous appearance of extradiegetic content that induces estrangement alongside the diegetic content increases attention to the audiovisual content at the plot level and can direct attention to one's own thoughts. This cognitive processing seeks to resolve the disturbance and ultimately leads to a new overall meaning of the story.*

Third (Research Question 3), the question arises as to whether the estrangement experienced would increase the level of transportation and the degree of narrative tension. Bearing in mind that both are related to entertainment (Bermejo-Berros et al., 2022; Green & Brock, 2000), we propose the following hypothesis:

*Hypothesis 3 (H3): There is a functional relationship between the estrangement experienced and the degree of enjoyment.*

## Method

### Participants, Materials, and Procedure

A total of 305 university students ( $M_{age} = 21.43$ ,  $SD = 2.68$ ) from the University of Valladolid (Spain) participated voluntarily in the research being conducted at the LipsiMedia Laboratory of this university. They were randomly assigned to two independent groups. The participants previously signed an informed consent that complied with the American Psychological Association Ethics Code (2017, 8.02). The study was approved by the Research Ethics Committee of the University of Valladolid.

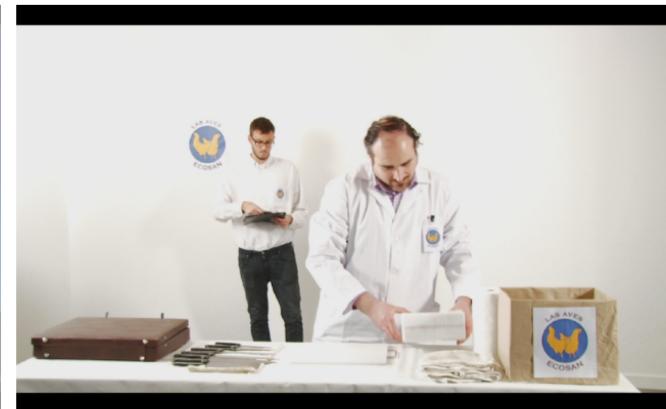
To investigate experimentally whether deautomatization induces the effects that we have postulated in the hypotheses, it is necessary to have two versions of the same story, one automatized and the other deautomatized. For this purpose, we have used the audiovisual project called *The Birdbutcher* [*El A vecinero*], which we have conceived and made in our laboratory (Bermejo-Berros et al., 2022). This is an audiovisual production in which, based on the same story, we have made a wide range of shots and sequences. Like a kaleidoscope, depending on the research objectives, we organize and edit the sequences in one way or another. In the present research, starting with the basic story *The Approacher*, we have edited together two versions of the same short film. Both have five sequences and conform to the quinary model (Adam, 2011; Labov & Waletzky, 1967) that provides an account of the narrative sequence and plot (Baroni & Revaz, 2016). The protagonist seems fond of the birds that he feeds in the parks and smiles when he sees them eat with an air of happiness. He also has many birds in his house that he treats with care. However, over the course of the story, the viewer discovers the character's true identity, as his relationship with the birds is not what it seems. He procures the birds in natural environments, feeds them with natural products and, finally, slaughters them to sell them.

In terms of the action, let us remember that an event has two features. It is a structure with a beginning, a middle and an end. It is connected to other events, and the interrelation of all of them allows for the unity of the plot. Our story is structured into four events (six sequences). Event A: Trigger, climax, or complication (the protagonist seeks to hunt, raise, and slaughter birds). Events B and C: Resolution or development of the action (the character's actions to achieve his goal). Event D: denouement (he sells the birds). From this basic structure, two versions of the short film have been created, one automatized and the other deautomatized (see Appendix B). Both versions have the same chronological structure (A-B-C-D), the same sequences, and the same duration (7'32"). They differ only in the content of Sequences 4 and 5, which constitute a transitional moment between event C and D. As shown in Figure 1, in Sequence 4 of the automatized version, some birds appear in a park and flying. In Sequence 5, the protagonist is accompanied by his assistant. These images are part of the diegetic universe that is being represented and give continuity to the plot of the story that the viewer is watching. However, in the deautomatized version (Figure 2), that version of Sequence 4 is replaced by another sequence in which images appear on screen that break the diegetic continuity by introducing extradiegetic images. Strange pale-faced dancers, dressed in black, dance strangely to the repetitive rhythm of drum music. This sequence has nothing to do with what the viewer has seen up to then and breaks the course of the plot. It is thus a deautomatized element. In Sequence 5 the dancers appear simultaneously alongside the protagonist. Therefore, this version of Sequences 4 and 5 is the independent variable that will allow deautomatization to be tested. Thus we will have two groups, one automatized with Sequences 4 and 5 with the birds-assistant and another deautomatized group with the dancers instead of the birds-assistant in these Sequences 4 and 5.

In the procedure, each participant sits down at a computer in the laboratory, watches the short film, and then answers a questionnaire whose questions and images subsequently appear on the computer. The duration of the session is 45 min.

**Figure 1**

Frames From Sequences 4 and 5 of the Automatized Short Film



*Note.* See the online article for the color version of this figure.

## Measures

The design includes a total of seven variables.

To test H1, we have evaluated the narrative tension in Sequence 4. There is one cognitive and one affective variable:

COG1 (thoughts in sequence 4)/THOUGHT4: On the computer, the subject is shown a frame from sequence 4 (cf., Figures 1 and 2) and is asked if they thought about anything when the images from that sequence of the short film appeared. Next, if they had thought about something, they are asked to talk about it.

EMO (emotion): They are asked if they felt any kind of emotion when the birds/dancers appeared. They are then asked to justify their answer.

To test H2, we assessed whether or not the eventual defamiliarization in Sequence 4 disrupts the processing of Sequence 5. To do so, we measured three variables:

COG2 (thoughts in sequence 5)/THOUGHT5: On the computer, the subject is shown a frame from sequence 5 (cf., Figures 1 and 2) and is asked if they were thinking about something when these images appeared in that sequence of the short film. Then, if they had thought of something, they are asked to talk about it.

COG2/THINGS: Identifying all the things that were in the room (sequence 5).

COG3 (memory)/MEMORY: They are shown the frame from sequence 5 which shows a box from which the logo that appeared in the short film has been erased (cf., Figures 7 and 8). They are asked to indicate what was there.

Finally, to test H3 and to find out whether deautomatization influences the experience of enjoyment, we used two variables:

TRANS (transportation): To measure the viewer's engagement with the content of the diegesis, we used the transportation scale (Green & Brock, 2000).

### APR

(appreciation):

To measure the entertainment component related to affect, we used an appreciation scale. It is composed of three 5-point items that ask whether they enjoyed the short film, whether it was good, and whether it was entertaining.

For the coding and scoring of the variables COG1/THOUGHT4 and COG1/THOUGHT5, a content analysis was carried out following the usual methodology (Krippendorff, 2004; Kuckartz & Radiker, 2023). The subject's thoughts as well as the number of words and ideas were coded. These two variables were also coded following the cognitive response perspective (Greenwald, 1968; Zimbardo & Leippe, 1991) and the thought-listing technique (Cacioppo & Petty, 1981) in the number of neutral, negative and positive thoughts; thoughts originating with the message or subject; and type of estrangement.

## Results

The results are presented in three sections corresponding to the three hypotheses.

### Deautomatization and Narrative Tension

To test whether the deautomatization of the text induces narrative tension in viewers (H1), we analyzed their cognitive and emotional responses in regard to Sequence 4.

First, we conducted two types of analysis, quantitative and qualitative, of the cognitive responses to Sequence 4. When asked whether they had thought about something when watching Sequence 4, we found differences between the two groups (variable COG1/THOUGHT4). Overall, while the largest number of viewers who watched the bird sequence did not think about anything in particular, those who watched the sequence with the dancers mostly claimed to have thought about it (Figure 3). There is a statistically significant relationship between being in one group or another and having thought about something or not,  $N = 274$ ,  $\chi^2(2) = 68.431, p < .05$ .

Next, a detailed quantitative analysis of the viewers' thoughts during this Sequence 4 was carried out. The total number of words and

**Figure 2***Frames From Sequences 4 and 5 of the Deautomatized Short Film*

*Note.* See the online article for the color version of this figure.

ideas was counted, and following the thought-listing technique (Cacioppo & Petty, 1981), the polarity and origin of each thought was analyzed. The *t* test for independent samples shows that there are some significant differences between the two groups (Table 1). Participants in the deautomatized group, when the dancers appeared on the screen, had a greater number of ideas, words, and positive thoughts. In contrast, the subjects in the automatized group, when the birds appeared on the screen, had a greater number of neutral thoughts. Therefore, these results show that the defamiliarized Sequence 4 induces a higher number of cognitions than the automatized sequence.

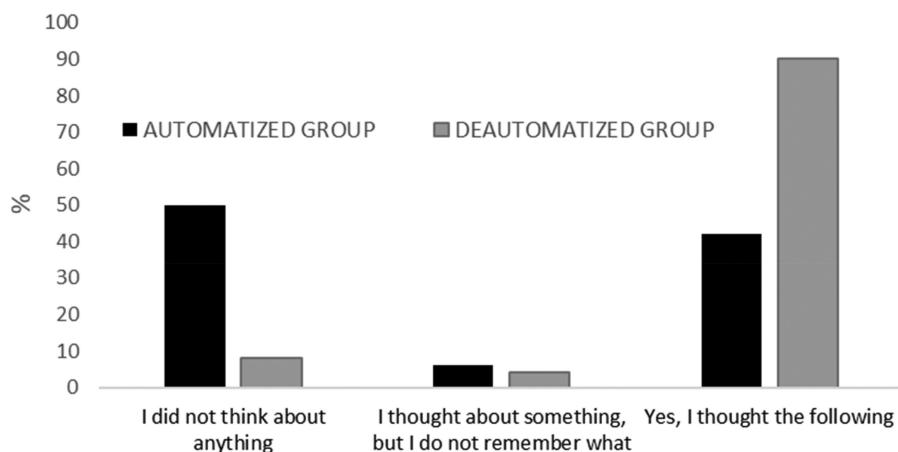
Following the cognitive response approach (Greenwald, 1968) and the thought-listing technique (Cacioppo & Petty, 1981), we proceeded to analyze the participants' thoughts during Sequence 4 in the dimension of estrangement from a qualitative point of view. Cognitive responses in this dimension provide information about the effect of the stimulus on the receiver's assimilation of the diegesis. In the content analysis of this dimension of thinking, we obtained four response categories:

Type 1: Statements that do not express disequilibrium and estrangement at the presentation of the stimulus. These responses are either neutral (e.g., I didn't think of anything in particular here), or are limited to describing the stimulus in its relation to the current plot (e.g., I saw birds like the ones hunted by the main character of this story here), or are unrelated to the stimulus present (e.g., I was wondering why the main character had bought a cage before).

Type 2: Statements expressing disequilibrium and pure estrangement without allusion to diegesis (e.g., What a surprise! I don't understand it!).

Type 3: Statements that show the difficulties and contradictions in being able to integrate the stimulus into the diegesis (e.g., "It's curious, I wonder how this fits into the story"; "The images of the dancers don't look like the rest of the short film").

Type 4: Statements that propose a hypothesis about how to integrate the stimulus into the diegesis (e.g., Maybe it's a

**Figure 3***Participants' Thoughts During Sequence 4 (THOUGHT4)*

**Table 1**  
*Characteristics of Thoughts During Sequence 4*

Thoughts during Sequence 4 (COG-1/THOUGHT4)	Automatized group		Deautomatized group		<i>t</i> (189)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Number of words	16.86	10.277	21.96	10.944	-3.230	.001
Number of ideas	1.62	0.765	2.09	0.720	-4.292	.000
Number of neutral thoughts	0.91	0.786	1.26	0.828	-2.942	.004
Number of negative thoughts	0.16	0.402	0.20	0.423	-0.687	.493
Number of positive thoughts	0.55	0.737	0.05	0.223	6.827	.000
Number of thoughts originating in message	0.95	0.764	1.10	0.772	-1.305	.194
Number of thoughts originating in subject	0.67	0.806	0.43	0.636	2.339	.020

*Note.* COG-1 = thoughts during sequence 4.

character's dream; You don't understand it at the moment but I'm sure it will be explained later; I wonder if it isn't music to calm us down as the story is perhaps going to get hard to deal with, with the birds being killed ...).

In the Type-1 response, there is no estrangement. In contrast, in the Type-2, -3, and -4 responses, there is estrangement and cognitive disequilibrium when it comes to being able to integrate the stimulus. The difference between Type 2 and Type 4 is that there is an attempt to elaborate upon the stimulus in trying to integrate it into the diegetic universe. Accordingly, between the Type 1 and 4 responses, we find progressively more statements that show a greater development of thought in this dimension of estrangement.

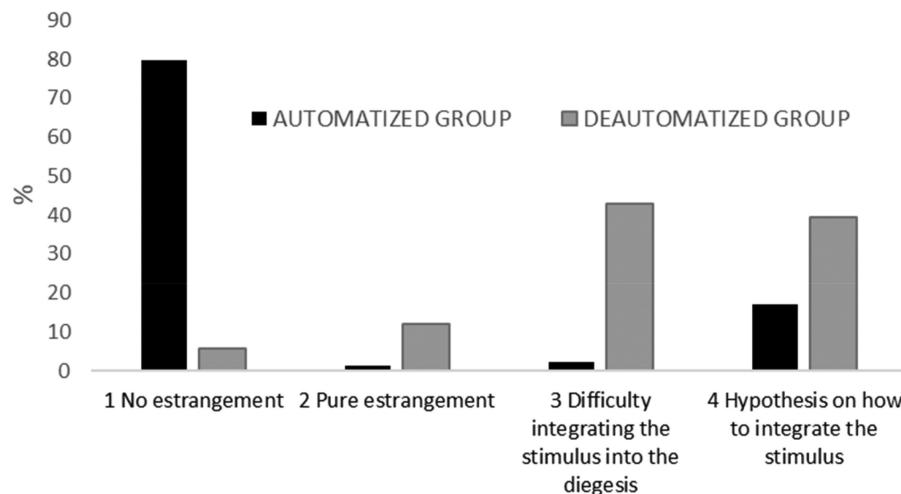
As Figure 4 shows, Type-1 responses, ones that are neutral or refer to the course of the diegesis, predominated in the automatized group. In contrast, the subjects in the deautomatized group experienced estrangement at the appearance of the dancers in that version of Sequence 4. In some cases, they limited themselves to expressing their surprise without elaborating on a thought that justified their perplexity (Type-2 response). In other cases, they expressed the contradiction created by this element that disturbed the course of the story (Type-3 response). Still others added some hypothesis that tries to integrate this element into the diegesis. These last two types of response are the ones most characteristic of the deautomatized group. The presence of the dancers was the deautomatizing element that triggered a considerable increase in cognitions aimed at understanding and integrating this element into the story as a whole. From a quantitative point of view, not only was this response more extensive and complex than that of the automatized group, as we saw earlier, but it was also qualitatively different. For the automatized group, there was no estrangement, but there was for the deautomatized group. These differences are statistically highly significant,  $N = 284$ ,  $\chi^2(3) = 168.320$ ,  $p < .001$ .

Second, regarding the emotional response of the viewers when they saw the birds or the dancers appear in Sequence 4 (variable EMO), we again found a differential result between the automatized and the deautomatized groups. Figure 5 shows the six types of emotions experienced during Sequence 4 in both groups. While in the automatized group the viewers who did not experience particular emotions predominated, those in the deautomatized group experienced three types of narrative tension emotions (surprise, curiosity, and suspense). These differences are statistically significant,  $N = 284$ ,  $\chi^2(5) = 116.355$ ,  $p < .001$ .

Regarding the explanations that the participants provided for those emotions experienced in Sequence 4, we found the following justifications:

1. When they had not experienced any particular emotion, they explained it by simply describing the scene (e.g., "There were many birds"). For the subject, this scene is simply the natural continuation of the plot. There is no emotion as such. This type of explanation predominates in the automatized group.
2. When the subject had an experience-based emotional reaction, they explained it because the scene reminded them of a personal experience or a personal attitude (e.g., "I love birds, I had birds like this," "I am afraid of birds"). This type of response does not activate an emotion linked to the content but connects the content to a past personal experience.
3. When the subject experienced an emotion of a positive aesthetic nature, they explained this appreciative reaction by saying that they had interpreted the scene as a metaphor or an allegory, and this was appealing to them. For example, for some, the scene of the birds symbolizes freedom, as they fly free in the countryside (as opposed to those locked up on farms). For others, the movement of the dancers' arms mimics the flight of birds. The dancers are free birds.
4. When the subject experienced surprise and perplexity, they justified it by saying that they did not expect the scene to appear. This kind of emotion occurred in the sequence with the dancers (e.g., "I didn't expect to see these characters in black with a balloon!"). The subject expresses an emotion associated with their surprise at and incomprehension of the dancers' scene. This type of response shows narrative tension in the form of shock. The subject receives a shock that they did not quite process, since in their justification, they expressed their incomprehension of the dancers' role in the story.
5. When the subject experienced curiosity, they explained it by saying that, although they did not yet understand what function this scene had, they had hoped that it would be revealed to them later. Therefore, they did not make any predictions about the course of the plot but rather expressed their expectation that this would occur as the story unfolded.
6. A more complete type of justification than the previous one is when the subject, having been intrigued by the scene, hypothesized about the integration of this scene into the

**Figure 4**  
*Types of Thoughts That Subjects Had During Sequence 4 in the Dimension of Estrangement (TYPES-THOUGHTS)*

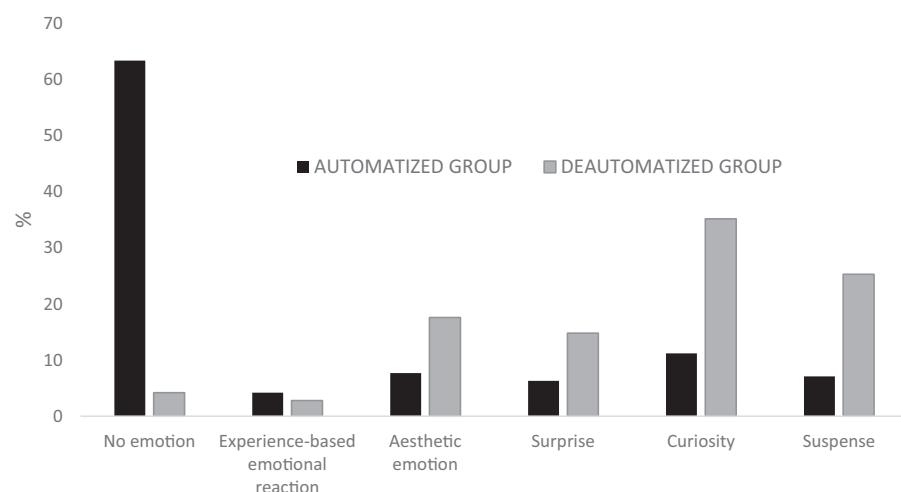


plot as a whole. They thus dug into and examined the suspense created by this scene.

These six types of emotional response and their justifications can be grouped into three categories. In the first category, nondeautomatization, we find either an absence of emotion or an experience-based emotional reaction. In the second, the subject perceives the scene as a metaphor or an allegory, and this gives rise to a certain degree of positive aesthetic response. Finally, in the third category, the subject experiences the emotions of narrative tension surprise, curiosity, or suspense. These responses, which predominated in the deautomatized group, are characterized by the subject reacting to the scene with the dancers with three degrees of incomprehension and an attempt to

integrate the scene into the plot. In the first degree—of surprise or shock—they do not resolve the lack of understanding they experience; they simply express it. In the second degree—curiosity—the subject thinks that there must be some explanation for the sudden presence of the dancers, which awakens an expectation accompanied by an emotional overtone. In the third degree—suspense—the subject still does not know what the scene corresponds to, but makes a prospective hypothesis. Therefore, unlike the automatized group, in which the bird sequence did not shift their mental orientation toward the form, in the deautomatized group, the dancers create narrative tension in the form of surprise, curiosity, and suspense because the subject does focus on the form, trying to integrate the discordant element into the overall plot. Not finding an immediate satisfactory answer generates a

**Figure 5**  
*Emotions Experienced by Viewers at the Appearance of the Birds or Dancers in Sequence 4 (EMO)*



*Note.* EMO = emotion.

disequilibrium, characteristic of narrative tension. We thus find different degrees of estrangement.

These emotions that we have just analyzed correspond well with the thoughts that participants had when experiencing these emotions and which we saw previously (cf., Table 1 and Figure 4). As shown in Appendix A, there is a positive correlation between the different quantitative cognitive variables we have analyzed previously (number of words and ideas, neutral polarity, and positive polarity). There is also a very significant positive correlation between cognitive and emotional narrative tension in the dimension of estrangement in this Sequence 4 (Figures 4 and 5). This indicates not only that narrative tension produces in the viewer a response that has a twin cognitive and the emotional dimension, but also that this tension is related to the process of deautomatization in Sequence 4 that we have analyzed.

In conclusion, the results confirm H1, according to which deautomatization induces narrative tension that is manifested as emotions of surprise, curiosity, or suspense that are accompanied by cognitions that examine the role of the deautomatized sequence in the story.

In psychological terms, we found that the phenomenon postulated by the text-oriented perspective of estrangement—shock and perception of contradiction in response to the deautomatization of the story—does indeed occur.

### The Disruptive Effects of Estrangement

The estrangement experienced in Sequence 4 has two disruptive effects, in the sense that they alter or interfere with the processing of the story's content in the subsequent Sequence 5.

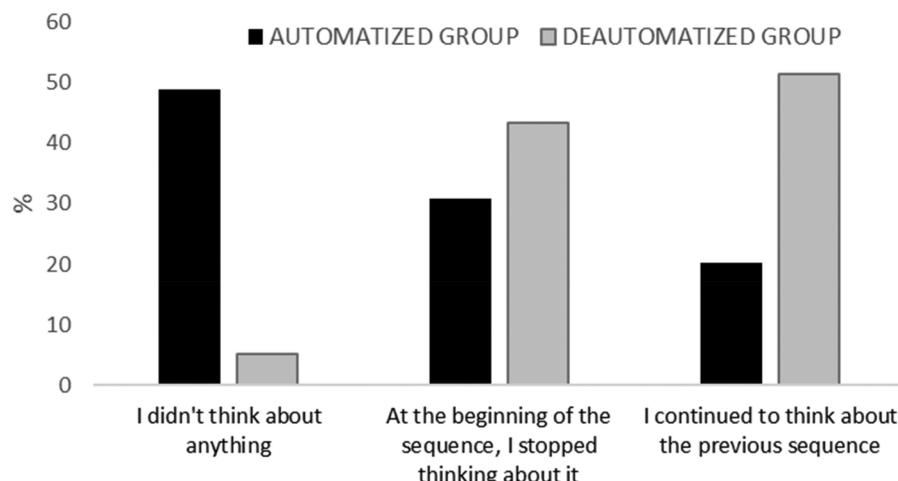
First, we have analyzed whether the psychological state of estrangement experienced by the subject during Sequence 4 intrudes into, alters, or interferes with the processing of Sequence 5. As Figure 6 shows, this is indeed the case. Participants in the deautomatizing group stated that, at the beginning and during Sequence 5, they continued to think about the disrupting element in the previous sequence (variable COG2/THOUGHT5). This would have consequences, as we will see hereinafter, for the processing of the scene in Sequence 5. This phenomenon of cognitive contamination between the two sequences did not occur in the automatized group. Most of the participants in this group did not think

about anything at the beginning of Sequence 5. The differences between the two groups in terms of this interference phenomenon are statistically significant,  $N = 269$ ,  $\chi^2(2) = 66.181$ ,  $p < .001$ . At the same time, as the analysis of correlations shows (Appendix A), having experienced cognitive and emotional narrative tension in Sequence 4 has a statistically significant relationship with experiencing the former type of disruption in Sequence 5.

Therefore, not only are the viewers in the deautomatizing group the ones who demonstrate the greatest disruption, but also the narrative tension influences the processing of the storyline. In this Sequence 5, 83% of the participants who continued thinking about Sequence 4, resolve the hypothesis, curiosity, and intrigue that had previously arisen when they saw the dancers appear on the screen (cf., Figures 4 and 5). In doing so, they give a new general meaning to the story. It is no longer the story of the bird breeder but something else (e.g., an allegory of freedom).

Second, we have carried out supplementary analyses to further explore this phenomenon according to which the estrangement experienced in Sequence 4 affects the cognitive processing of the subsequent Sequence 5, reducing the processing of the content in Sequence 5. This is to provide information on the effects of disruption during Sequence 5. In psychology, the theory of mental functioning shows that there are two foci of attention (Tran Thong, 1980; Tran Thong et al., 1976). The first is directed outward, toward the surrounding world where action takes place. The second is directed inward, toward consciousness and the space for reflection. In the present study, we find this dichotomy. The automatic group directs its attention to the actions taking place on the screen and integrates these external stimuli into the activated mental schema. On the contrary, the deautomatized group is confronted with an element that does not automatically fit into the course of the action. The subject needs to understand why and for what purpose the dancers have appeared. This makes them redirect their attention inward, into their consciousness, where they think through this search for the meaning of the external stimuli, the dancers, and therefore, their accommodation to a coherent evolution of narrative progression. This internal focus continues to be active at the moment when Sequence 5 subsequently appears on the screen, as we saw previously in the phenomenon of intrusion

**Figure 6**  
Participants' Thoughts During Sequence 5 (THOUGHT5)



(Figure 6). On the basis of this finding, we then analyzed what effects the viewer's inwardly focused state of mind produced. To do this, we asked the subject to describe everything that appeared in Sequence 5 (variable COG2/things). The viewers in the automatized group remembered a greater number of things ( $M = 6.53$ ,  $SD = 2.791$ ) compared with the deautomatized group,  $M = 5.40$ ,  $SD = 2.178$ ,  $t(241) = 3.510$ ,  $p < .001$ . In this recall process (variable COG2/numwords), the viewers from the automatized group provided a more complete statement with a higher number of words ( $M = 38.63$ ,  $SD = 2.803$ ) than the deautomatized group,  $M = 26.43$ ,  $SD = 1.517$ ,  $t(241) = 3.855$ ,  $p < .001$ . As we saw previously (Figure 6), this result, which indicates that participants in the deautomatized group do not remember Sequence 5 as well, is explained by the fact that participants in the deautomatized group were still thinking about Sequence 4 when Sequence 5 broke in.

Finally, after viewing the short film, the participants were also shown an image from Scene 5 that showed a box from which the advertising stimulus corresponding to the logo of the fictitious brand Ecosan, created for this short film, had been erased (Figures 7 and 8). Participants were asked to recall which image and brand was in that box (variable COG3/memory). Responses were categorized based on a scale ranging from 1 to 5, where 1 = *not remembering anything* and 5 = *remembering the image and logo*. In line with previous results, participants in the deautomatized group also had more difficulty remembering that stimulus,  $M = 2.71$ ,  $SD = 1.281$ ,  $t(264) = 3.028$ ,  $p = .003$ , than the automatized group,  $M = 3.20$ ,  $SD = 1.353$ ,  $t(264) = 3.028$ ,  $p = .003$ .

We have carried out a supplementary statistical multiple linear regression analysis to corroborate whether the degree of estrangement and cognitive and emotional narrative tension in Sequence 4 influences the recall of the stimuli present in Sequence 5 (cf., Table 2). This analysis confirms previous results showing that experiencing estrangement and narrative tension influences the reading process by disrupting the automatic assimilation of the subsequent sequence.

Consequently, deautomatization induces in the viewer an internal focus aimed at resolving the estrangement experienced, and therefore, they no longer pay attention to external stimuli. This leads to a decreased cognitive availability to process the stimuli that continue to appear on the screen. In conclusion, it can be

said that deautomatization causes cognitive interference in the viewer by directing their attention toward the form, that is, toward the interior of the story so as to understand the disrupting element. This finding confirms both our H2 and the insight postulated by Shklovsky regarding deautomatization's effect on shifting the dynamic orientation toward form.

## Deautomatization and Entertainment

We tested the two dimensions of entertainment (engagement with the diegesis and enjoyment). First, regarding the viewer's engagement with the content of the diegesis, the results show that there is no difference between the two groups in the degree of transportation, automatized group,  $M = 2.97$ ,  $SD = 0.7122$ ; deautomatized group,  $M = 2.91$ ,  $SD = 0.71223$ ,  $t(298) = 0.633$ ,  $p = .527$ . This means that deautomatization does not influence the degree of transportation in diegesis. If differences are found in the final degree of entertainment experienced, they do not depend on this variable.

Second, for the affect-related components of entertainment, we conducted two analyses. In one, we measured the degree of enjoyment experienced with the short film (variable APR). There are statistically significant differences between the two groups. The deautomatized short film ( $M = 3.06$ ,  $SD = 0.6145$ ) is appreciated more by the viewers than the automatized one,  $M = 2.82$ ,  $SD = 0.05841$ ,  $t(298) = 3.406$ ,  $p = .001$ . In the other, we investigated whether the degree of estrangement experienced by the participants, which is manifested in their responses to cognitive and emotional narrative tension, influences the degree of enjoyment experienced. There is a positive correlation in the degree of enjoyment with the short film (variable APR) and the degree of emotional estrangement experienced by the participants (variable EMO). Likewise, the statistical analysis using a multiple linear regression test shows that the estrangement experienced did indeed influence the degree of enjoyment of the short film (Table 3).

In conclusion, these results support H3 according to which deautomatization influences the degree of enjoyment of a story. We found an explanation for this relationship. Thus, the mental disequilibrium caused by defamiliarization impels the reader to search for answers to the unknown factors that the text presents. They need to give meaning

**Figure 7**  
Image of Sequence 5 With Logo Symbol Hidden in Automatized Version



*Note.* See the online article for the color version of this figure.

**Figure 8***Image of Sequence 5 With Logo Symbol Hidden in Deautomatized Version*

*Note.* See the online article for the color version of this figure.

and coherence to the plot. This search, characterized by the processing of narrative tension, is full of moments of uncertainty followed by discoveries and answers. This process of resolution is akin to an adventure. It is a dynamic that is not dissimilar to that of the life in quest of narrative of which Ricoeur (1991) speaks and which, in its creative movement, entertains the reader and makes it an enjoyable experience for them.

### Discussion

The results of this research contribute to deepening our understanding of the processes and mechanisms involved in the aesthetic experience of enjoyment in the interaction with deautomatized stories. This study, with a view to finding a meeting point between text-oriented and reader-oriented approaches, has enabled us to relate the concept of deautomatization to narrative tension and enjoyment. The discussion addresses three questions revolving around the properties of narrative art and the psychological response to it.

### Deautomatization and Narrative Tension

The two deautomatizing procedures investigated here induce cognitive and emotional narrative tension. The dancers' sequences (4 and 5) allow a double deautomatizing procedure. The first three sequences build a diegesis that shows the protagonist raising and sacrificing birds. This narrative progression is broken by the appearance of extradiegetic content in Sequence 4. In this sequence, the dancers appear in a space of white walls with no identifying signs.

It seems to be a dreamlike scene that has nothing to do with the previous realistic sequences. The sudden emergence of the dancers is a disturbing element that provokes estrangement in the spectator just at the moment of their appearance on the screen that reflects the viewer's incomprehension of the sequence. It is this juxtaposition of successive diegetic/extradiegetic sequences (oxymoron) that provokes estrangement in the spectators (confirming H1). This is so much the case that some participants, who do not manage to integrate them into a whole, say that they seem like sequences from different short films. However, as we have seen, this strong contrast between the sequence of the dancers and the preceding sequences, upon forming part of the same story, impels the viewer to look for the link that connects them, as do those viewers who question and hypothesize about their integration (cf., type of Thoughts 3 and 4 in Figure 4) and express curiosity and suspense (cf., Figure 5). Then, in Sequence 5, the dancers and the protagonist of the story find themselves in the same space/time. This presence of diegetic (realistic) and extradiegetic (symbolic) content in the same sequence induces the spectator to resolve the disturbance created by this simultaneity. This state of imbalance requires that the spectator seek to reinterpret the text. This process now leads him to resolve the hypothesis, curiosity, and suspense expressed in Sequence 4. The result is that the spectator gives a new meaning to the story based on the interpretation attributed to the displaced content of the presence of the dancers (synecdoche). For example, it is no longer the story of a bird breeder but one about freedom (thus confirming H2). In short, the introduction of the deautomatizing content in

**Table 2***Multiple Linear Regression of Narrative Tension Variables in Sequence 4 on Recall in Sequence 5*

Variable	R <sup>2</sup>	F	B	SE B	β	t	p
Model: COG3/memory (COG2/things)	.549	41.828 (3, 259)					.000**
Intercept (constant)			5.645	1.533		4.625	.000*
Predictor (COG1/THOUGHTS4)			6.447	0.540	.682	12.325	.000**
Predictor (TYPES-THOUGHTS)			7.989	0.563	.299	10.922	.000*
Predictor (EMO)			6.184	1.659	.422	4.601	.000*

*Note.* COG-1 = thoughts during sequence 4; COG-2 = thoughts in sequence 5; COG-3 = memory.

\*  $p < .05$ . \*\*  $p < .01$ .

**Table 3**  
*Multiple Linear Regression of Narrative Tension Variables in Sequence 4 on the Enjoyment of the Short Film*

Variable	<i>R</i> <sup>2</sup>	<i>F</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Model: enjoyment (APR)	.397	29.653 (3, 259)					.000*
Intercept (constant)			4.336	1.102		3.584	.000*
Predictor (COG1/THOUGHTS4)			5.620	0.481	.448	7.277	.000*
Predictor (TYPES-THOUGHTS)			6.106	0.624	.423	8.024	.000*
Predictor (EMO)			5.203	1.316	.529	3.880	.000*

*Note.* APR = appreciation; COG-1 = thoughts during sequence 4; EMO = emotion.

\* *p* < .05.

the story, both in succession (Sequence 4) and simultaneously (Sequence 5), induces estrangement and a search for resolution of the narrative tension.

In conclusion, as literary theory has postulated, and reviving the hypotheses offered (H1 and H2), the present study brings psychological proof that deautomatization provokes an estrangement effect manifested in a cognitive-emotional narrative tension that directs the reader to the form, that is to say, to the text itself. This means that the viewer tries to understand the dancers' sequence in order to be able to interpret and integrate this perturbing element into the story as a whole with the goal of giving coherence and direction to the plot. This process can lead to a reinterpretation of the story's meaning.

### Cognitive and Affective Regulation in the Exposition of Audiovisual Narrative Fiction

Secondly, if the results have contributed elements in response to the proposed hypotheses, then they can also shed light on a more general plane in which the psychology of art is situated. As such, the regulatory processes that the estrangement induced by deautomatization provoke allow us to discuss the results in relation to the two types of questions posed by Hanfstingl et al. (2022) listed above. This endeavor seeks to situate the response to narrative fiction in a broader discussion about the psychological functions of art.

1. Assimilation/accommodation dynamic: First, the results show an assimilation/accommodation dynamic. The diegetic schemas activated during the narrative progression allow the viewer to assimilate the film without difficulty, as much the automatic story as up until the dancers' sequence of the deautomatized story. The participant realizes that it is time to accommodate when they perceive the contradiction between the unencumbered assimilating flow and the moment when they encounter the obstacle of the unexpected emergence of the dancers that throws off that flow. That sequence does not fit within the activated story schema. At this point, upon perceiving this breakdown (as seen in their cognitive reactions of estrangement), the participant reorients their attention to search for a solution that allows the assimilating flow to continue. As we saw above (see Figures 3 and 4 and commentary), this attempt to search for a recalibrating response can range from impossibility to manage to accommodate to the object (Type 1), to a total modification of the previously activated schema, and as such, to resolving the deautomatizing object's

accommodation (Type 4). Moreover, we have been able to identify the specific point of departure at which one process overtakes the other. This occurs when the story introduces the deautomatizing sequence. Therefore, the assimilation/accommodation dynamic is framed by a regulatory process that seeks to reestablish the flow that leads the spectator to process the film in a cohesive manner (adapted). The assimilation flows while the film gives information that reinforces the diegesis and the story's activated schema. Accommodation takes over when new information (in our case, a deautomatizing scene) does not fit within the assimilating schema. In this case, the rupture in the automatic processing of the film (that can have been produced unconsciously or without the subject reflecting on it deliberately) reveals the narrative tension that translates into a change in mental orientation that manifests itself in the thoughts and affect of the subject. This translation is a more conscious process because the spectator experiences the need to understand what is happening on the screen.

2. Affectivity: Secondly, in the story's exposition, the cognitive processes that we just described accompany each other and relate intimately with the affect responses in which we also observe a manifestation of narrative tension.

From the assimilation/accommodation construct perspective, Fiedler et al. (2010) relate assimilation to a positive emotional state (driven by knowledge) and accommodation with a negative emotional state (driven by the stimulus). In contrast, dynamic integration theory postulates that cognition and emotion are two aspects of the same system (Labouvie-Vief, 2015; Labouvie-Vief et al., 2007). According to this theory, through interaction with the medium, cognition and emotion maintain a fragile equilibrium which is necessary to nourish optimal functioning that simultaneously allows for the expansion and stability of the system. Once this equilibrium is broken, it must be reestablished, at the risk of provoking disorders and even pathologies. In line with this perspective, our results also demonstrate an integratory dynamic in its own right that adds new elements to this interpretation about the relationship between cognition and emotion. First, we must distinguish between two particular moments during the film viewing. The first is when the deautomatizing stimulus appears. Here we observe the appearance of a narrative tension where the emotions that appear (Figures 4 and 5) are intimately related to cognitions (Appendix A). As such, these emotions accompany cognitions in such a way that, depending on the degree of comprehension and integration of the deautomatizing scene in the overall story, the emotion will be either positive or

negative. Therefore, in contrast to Fiedler et al. (2010), in our case, assimilation does not generate a positive emotion, but that, depending on the type of cognition, one type of emotion or another will appear. If the regulatory process manages to integrate the deautomatizing element, a positive emotion will result. In the opposite case, the emotion will be negative, or the situation will create an expectation that must be evaluated at the end of the story, according to the new information brought subsequently through the film. This means that, as demonstrated in the previous study (Bermejo-Berros et al., 2022), throughout the viewing different emotions of distinct polarities can appear. Secondly, the regulation process does not only take place during the viewing but also at its conclusion. A crucial aspect of this process is the interpretation that the spectator makes of the deautomatizing stimulus and how they integrate it (or not) into the plot, once exposure to the film is finalized. If the spectator manages to integrate it into the plot structure, a state of equilibrium is reestablished. The regulation carried out can be successful permitting the viewer to accommodate the perturbing object and coherently modify the assimilating schema. When this happens, we observe that the evaluation of the film is more positive. In contrast, when the subject has failed in the regulation process and has not integrated the deautomatizing stimulus, a less positive and even negative evaluation of the film results.

Definitively, these results contribute some elements of a response to the two lacunae that Hanfstingl et al. (2022) indicate. Furthermore, they show that exposure to artistic products of audiovisual narrative fiction, where the person seeks pleasure in an aesthetic experience, also follows the regulatory processes of assimilation and accommodation that we observe in other learning and knowledge attainment processes.

3. System regulation processes: Narrative tension is the manifestation of an imbalance that the participant attempts to recalibrate in a cognitive-affective regulation process. When the spectator does not understand the dancers' sequence and does not successfully integrate it into a coherent narrative, the viewer experiences unease. This distress is contrary to the equilibrium and homeostasis through which the film should bring the spectator satisfaction. As Labouvie-Vief (2015) notes, equilibrium/homeostatic processes are aimed at maintaining an optimal level of tension in the system, while avoiding an escalation of tension to a point of breakdown, by applying processes of tension reduction. In order to reestablish equilibrium and to be able to continue the film-viewing process, the participant takes the object's resistance into consideration and seeks to be able to assimilate it by modifying their previously activated schemas.

The present research allows us to add the idea of functional versatility of regulatory processes to the MUNTE theory. In the previous study (Bermejo-Berros et al., 2022), we delve into the deautomatizing mechanism of temporal reordering the film sequences (hyperbaton). Three deautomatizing versions of an audiovisual story were created. Each had a structure organized either of suspense, surprise, or curiosity. The participants were divided among these three versions. In the spectators' regulatory effort to accommodate to the story in which the sequences should be reordered in order to understand the story, cognitions in the form of prospections,

retrospections, and diagnoses manifested. These cognitions allowed the viewers in each case to reorder and to reconstruct and make sense of the plot based on the pieces of the puzzle as the viewing continued. At the same time, the emotions the participants experienced reflected an emotional state of suspense, curiosity, or surprise that corresponded well with the form of organization of each type of story. In the same way, the other two deautomatizing mechanisms that we have explored in the present study also reveal the spectators' efforts to accommodate that allow them to interpret and integrate the deautomatizing element. However, their regulating strategy is distinct, even when it fulfills the same recalibrating adaptive function. As such, the attempt to understand the dancers' sequence in the film leads the spectator to modify the activated schema from the beginning of the viewing. As in synecdoche, this jarring element substitutes the whole and leads to a new interpretation of the story (e.g., the story of the butcher is reinterpreted as a story of freedom). It is an effective regulatory and adaptive response to this filming, distinct from that used by the previous study's participants. Likewise, the affective responses in the present story are a response to estrangement provoked by the deautomatizing element. As in the previous investigation, there is a correspondence between the cognitions and emotions experienced. Definitively, as much in the prior study (Bermejo-Berros et al., 2022) as in the present study, the cognitive and affective participant responses are specific attempts to adapt to the same accommodating principle postulated in the MUNTE theory. This principle is characterized by a search for equilibrium that introduces a dialectic dynamic between assimilation and accommodation that allows for the processing of the deautomatizing element. Even when the type of deautomatization differs in each case, and the regulatory strategies that the viewer employs are distinct, the three deautomatizing methods fulfill the same regulatory and adaptive function of making sense of the story. That said, the question posed is whether these regulatory efforts of comprehension and interpretation of the story have a finality in and of themselves and if they exhaust the spectator's psychological response, or if instead they register another function that makes sense of the human activity of exposing oneself to and consuming fictional narratives. The results of the investigation indicate an affirmative response to this question as seen in the following point.

### **The Dual Function of Narrative Fiction: Enjoyment and Mental Openness**

Thirdly, the results of this study contribute to show that interaction with narrative fiction serves a dual function. The first is pleasure. In comparison to automatic stories, deautomatizing ones are susceptible to inducing a major joyful experience based on the regulatory processes of narrative tension that we have outlined above (confirming H3). However, in order for deautomatized narrative fiction to be susceptible to procuring enjoyment, it is not enough for it to produce narrative tension, but certain conditions must also be satisfied. When, in the narrative progress of a story, there is a breakdown between the information provided by the text and the information that the reader needs to interpret it and make sense of the story as a whole, an affective-cognitive phenomenon of narrative tension appears. This is the manifestation of an imbalance between assimilation and accommodation due to the resistance of the text's deautomatizing element to being assimilated into the previously activated mental schema of diegesis. The regulating process that attempts to

reestablish equilibrium can be characterized by the following traits: (a) In the narrative progression, according to the type of deautomatizing element, the reader will activate a regulatory process via a series of types of cognitive and affective responses that fulfill the function of prospection, of diagnosing, of retrospection, and of reinterpretation. By virtue of the functional versatility principle of the regulatory processes of narrative tension, depending on the type of deautomatized discursive structure, one of these response modalities will ultimately predominate. (b) When at the end of the narration the regulatory process has permitted the spectator to satisfy and/or resolve the imbalances that induce narrative tension, the subject experiences enjoyment or entertainment. (c) Inversely, when the story does not induce the imbalances manifested by narrative tension (as occurs in automatized narratives) or when the reader is incapable of satisfactorily resolving the imbalance experienced (upon not finding an answer that integrates the deautomatizing element), the viewer experiences neither enjoyment nor entertainment (Bermejo-Berros et al., 2022, p. 14). This characterization completes the MUNTE theory's predictions.

In conclusion, exposure to deautomatized narrative fiction does not have executing regulatory processes that permit understanding the story as an exclusive finality, but instead, it is the case that these processes are used for the entertainment experience. But there is more. A popular belief exists according to which the only function of fiction is to entertain, without producing any other effect than the mere and fleeting pleasure during the viewing. However, the results suggest that the regulatory processes also permit the possibility that narrative fiction can have a second function. The three deautomatizing mechanisms do not only induce entertainment, but, by opening up a regulatory process that makes it coherent in relation to the world of the art object and the inner world, they also make the cognitions and emotions that this encounter provokes lead the spectator to do more than just accommodate to the text. These responses also contribute to the opening of a second route for adaptation and growth upon modifying their previous mental states and representations that were not already directly related to the basic comprehension of the text. For instance, when the dancers' deautomatizing sequence appears, one spectator says that they believed that it was the story of a butcher, but, upon seeing the manner in which the dancers entered the scene, they changed their interpretation and considered that it was a story about freedom. In short, the dancers sequence makes the spectator reinterpret the rest of the film. As such, the birds the spectator saw throughout the film, flying or in cages or on industrial farms, become for that spectator a symbol of liberty. Yet, this reinterpretation which allows for the accommodation of the deautomatizing sequence, and, from there, reinterpreting the entirety of the plot continues. The spectator continues their reflection and asks what freedom is for society, for others, for themselves. In other words, the encounter between the text and the spectator's mind has opened a reflection beyond that of the text itself and that situates their thought in the territory of their personal interior world. Henri Wallon refers to this as a mental attitude that fulfills the function of orientation and awareness, fundamental in cognitive development (Tran Thong, 1980). Fiction would, in this way, have a second function of knowledge that deserves to be explored in order to know if it feeds personal and social identity and in what way through an adaptive process that Piagetian constructivism called majorant recalibration. This interpretation can be put into relation with other perspectives that come to propose that narrative fiction

would have the capacity to provoke this second function. In narrative psychology, Bruner describes the landscape of action and landscape of consciousness, referring to the flow of the plot and the mental universe of the characters with which the reader interacts (Bruner, 1986, 1990). What the results of the present research show is that the process of subjunctivization takes place not only in relation to the action and the characters but also to the reader's own mental process. Owing to the shock experienced by the deautomatization, the reader turns their attention to their own landscape of consciousness where they confront the text through subjunctivization to make sense of the story. This process of interaction between the text and the reader also finds support in contemporary narratology, which sees the narrative sequence as something dynamic such that the text needs the participation of the reader. Thus, during narrative progression (Phelan, 1989, 2007), the appropriation of the text is not a mere assimilation of the content (as might be suggested by classical structuralism) but rather a dynamic and creative construction (*siuzhet*) in which text and reader interact, something also postulated by the philosophy of narrativity (Ricoeur, 1991, p. 26). This interaction would be one of the ways in which narrative thinking builds personal identity (Bermejo Berros, 2005b; Bruner, 1986, 1990; Nelson, 1989; Sarbin, 1986). This dual role can also be related to the concept of catharsis. Already in Aristotle's Poetics, the catharsis that tragedy brings to the spectator has a double dimension of purgation (of energetic liberation in response to the play) and purification (which transforms the reader). In his *Psychology of Art*, Vygotsky (1974) also postulates that the purpose of art is not merely a release of emotion but rather a dialectic that, through its synthesis, renews. Finally, Bermejo Berros (2005a, 2005b), based on other research with audiovisual stories, proposes the concepts of fruitional catharsis and reconfigurational catharsis. The first is a response with bodily and mental correlates, focused on assimilating the story. This type of catharsis can take place in the enjoyment of automatized works. In contrast, reconfigurational catharsis is a process in which the world of the fictional story and the personal world of the reader come into contact, thus opening up the possibility of altering their depictions, ideas, and thoughts (Bermejo Berros, 2005a, 2005b). Deautomatization would be an aesthetic device that could be used to induce reconfigurational catharsis, by redirecting the reader toward an internal process of subjunctivization of the text that involves interaction with the reader's inner world (which can thus be transformed).

The empirical study carried out here suggests that deautomatization is not an epiphenomenon but an effective aesthetic resource for inducing the psychological effects of enjoyment and open-mindedness. With this empirical support, the contemporary appeal of the concept of deautomatization (*ostran(n)enie*) takes on renewed relevance (van den Oever, 2010).

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## Appendix A

### Correlations Between Narrative Tension and Estrangement Variables in Sequences 4 and 5

Variable	THOUGHT 4	Words	Ideas	Neutral thoughts	Negative thoughts	Positive thoughts	Originating in message	Originating in subject	TYPE	EMO	THOUGHT 5
COG1/THOUGHT4	1.000	.564** .000	.390** .000	.211** .003	.130 .072	-.161* .026	.141 .052	.038 .599	.988** .000	.987** .000	.682** .000
Number of words	.274 .000	191 .000	191 .000	191 .000	191 .022	191 .590	191 .000	191 .000	267 .000	261 .000	268 .008
Number of ideas	.564** .000	1.000 .000	.773** .000	.471** .000	.165* .143	-.039 .963	.315** .000	.269** .001	.564** .000	.572** .000	.194** .018
Number of neutral thoughts	.390** .000	.773** .000	1.000 .000	.533** .000	.106 .143	.003 .191	.406** .191	.229** .001	.390** .000	.389** .000	.174** .018
Number of negative thoughts	.211** .003	.471** .000	.533** .000	1.000 .000	-.286** .000	-.397** .000	.306** .000	.252** .000	.213** .003	.211** .004	.115 .117
Number of positive thoughts	.130 .072	.165* .022	.106 .143	1.000 .000	-.286** .198	1.000 .191	-.093 .311	.074 .221	.089 .069	.132 .127	.186 .064
Thoughts originating in message	.191 .052	191 .000	191 .000	191 .000	191 .311	191 .227	191 .000	191 .000	191 .058	191 .068	.186 .397
Thoughts originating in subject	.038 .599	.269** .000	.229** .001	.252** .000	.089 .221	.128 .077	-.532** .000	1.000 .000	.042 .566	.040 .590	-.027 .713
Types of thoughts	.988** .000	.564** .000	.390** .000	.213** .003	.132 .069	-.162* .025	.137 .058	.042 .566	1.000 .000	1.000** .000	.656** .000
Emotions (EMO)	.987** .000	.572** .000	.389** .000	.211** .004	.127 .086	-.157* .033	.134 .068	.040 .590	1.000** .000	1.000 .000	.660** .000
COG2/THOUGHT5	.682** .000	.194** .008	.174* .018	.115 .117	-.064 .385	-.081 .274	.062 .397	-.027 .713	.656** .000	.660** .000	1.000 .265
	.268 .000	186 .000	186 .018	186 .117	186 .385	186 .274	186 .397	186 .713	261 .000	266 .000	255 .269

Note. EMO = EMOTION; COG-1 = thoughts during sequence 4; COG-2 = thoughts during sequence 5. Spearman's rho significance (bilateral).

\*  $p < .05$ . \*\*  $p < .01$ .

## Appendix B

### Links to Media Content Used in the Research

1. Automatized version: <https://youtu.be/N1L38et-PS0>.
2. Deautomatized version: <https://youtu.be/6cMQA7XO8sk>.

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