In the Mood for Odd? The Role of Affective Factors in the Evaluation of Categorical Atypicality

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ABSTRACT

This paper investigates the impact of atypicality on cultural goods reception. While prior research has assumed controlled and highly cognitive mechanisms in audience evaluations, this paper probes the influence of affective states. We suggest that crises, such as the COVID-19 pandemic, trigger affective states and sway evaluations of atypical cultural goods. In a longitudinal study on movie evaluations ("Study 1"), we analyze how the external shock of the COVID-19 lockdown announcement — proxying heightened negative affects including anxiety — interacted with movies' atypicality and their subsequent audience evaluations. Furthermore, two preregistered controlled experiments establish causal links at the individual level. Study 2 corroborates the causal relationship between the COVID-19 lockdown announcement and increased negative affects. Study 3 shows that higher negative affects moderate how perceived novelty mediates atypicality's effect on audience evaluations. Overall, this paper has important implications for research on categorization, social evaluations, and the consequences of COVID-19 policy consequences.

KEYWORDS: Atypicality, Evaluation, Affects, Topic Modeling, Movies, COVID-19

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1 INTRODUCTION

What makes cultural goods, such as movies, books or songs, positively evaluated by their audiences? In cultural markets, there is great uncertainty about whether audiences positively evaluate the features of a cultural good—such as a movie's synopsis, a book's storyline or a song's lyrics (Askin & Mauskapf, 2017; Keuschnigg, 2015). Evaluations are less uncertain when the cultural goods follow the expected attributes of the genres that structure markets (DiMaggio, 1987). For instance, romance movies often showcase love relationships, while horror movies tend to scare audiences. However, cultural goods are expected to offer some degree of novelty to their audience, which may imply blending features that usually belong to various genres (Hsu, 2006; Rao et al., 2005). A romance movie that borrows some attributes of horror movies would both showcase love relationships and seek to scare audiences. In recent years, research has investigated the role of atypicality—the extent to which a cultural good diverges from the average features of its genre or category—on evaluations from market audiences (Askin & Mauskapf, 2017; Durand & Kremp, 2016; Hannan, 2010; Silver et al., 2022).

This line of research shows that atypical goods are perceived more negatively than typical ones (Hsu et al., 2009; Kovacs & Hannan, 2015; Zuckerman, 1999). However, recent studies have also found that atypicality brings novelty and are thereby welcomed (Berger & Packard, 2018), up to a certain point (Silver et al., 2022). To reconcile these findings and enhance our comprehension of the benefits and pitfalls of atypicality, the discussion has focused on identifying conditions that make atypicality more or less valuable for market audiences (Zuckerman, 2017). We note that a common thread in the literature is that atypicality impacts audiences' controlled, cognitive evaluation processes, as evaluators tediously analyze how atypical cultural goods bring novelty.

However, recent developments emphasize the role of automatic processes in cultural markets (Hannan et al. 2019, Lizardo et al., 2016; Evans, 2008). In contrast to cognitive processes that evaluators control, evaluators' automatic processes are associative in nature and rely on existing categories (Smith & DeCoster, 2000). Therefore, automatic processes have the potential to systematically shift the evaluation of atypical goods, as automatic processes override controlled processes when evaluators' affective states allow (Epstein, 1994; Slovic, Finucane, Peters, & MacGregor, 2007). In highly affective states, evaluators are no longer able to engage in the analytical assessments required by atypical cultural products. Importantly, Lizardo et al. (2016) insist that our understanding of automatic processes needs to be grounded in specific contexts to show how they impact specific social phenomena.

In this respect, our paper examines how individuals' affective states influence their evaluations of cultural goods' atypicality, complementing existing studies that document how automatic processes shape the impact of culture on individuals (Haidt, 2001). Whereas affective states are often considered fleeting and individual, recent studies also emphasize how affects and individual decisions eventually impact broader groups (Bonilla-Silva, 2019; Edmans et al., 2022). We propose that individuals diversely evaluate cultural goods' atypicality not only because they vary in their idiosyncratic taste for atypicality (Goldberg et al., 2016; Ollivier, 2008) but also because the context in which they are immersed triggers affective states.

Studies have highlighted how affects have a large-scale, collective dimension in contexts of crisis (Bundy et al., 2017; Goldenberg et al., 2020; Zhang et al., 2023). Notably, the COVID-19 pandemic is a crisis exhibiting an unprecedented scale and affecting largely cultural industries (UNESCO, 2021). The lockdown measures impacted not only whether and how individuals could consume cultural goods but also which ones they would consume. We suggest that the

COVID-19 pandemic, like other crises generating negative affects, also influenced how individuals assessed cultural goods. More specifically, we expect that the unprecedented lockdown announcements triggered negative affects among individuals on average, negatively impacting how atypicality was welcomed. In these times of greater anxiety, evaluators' higher negative affects make novelty less appealing.

To test our hypothesis, we conducted three studies. First, in a longitudinal study ("Study 1"), we analyzed a unique dataset of more than 29k movie evaluations from a major French-speaking rating platform, *SensCritique (SC).* We used the first COVID-19 announcements as an external shock in a difference-in-difference (DiD) design. As expected, we found that the lockdown negatively moderated the relationship between movie atypicality and audience evaluations. We then conducted two additional preregistered controlled experiments to more identify the causal mechanisms at play. The second study ("Study 2") used a sample of 200 students and corroborated that the COVID-19 lockdown announcement generated a higher level of negative affects. Finally, the third study ("Study 3") used a sample of 400 individuals and showed that individuals with heightened negative affects evaluated the perceived novelty of atypical movies less positively than the perceived novelty of atypical movies.

Overall, our results show that higher levels of negatively affects like anxiety leads to temper the evaluation of atypicality. Our paper offers contributions to research on categorization, social evaluations, and the consequences of COVID-19 policy consequences. First, while audiences have heterogeneous tastes for atypicality (Goldberg et al. 2016), our study emphasize that taste for atypicality also varies with individuals' affective states — which may be triggered by contextual factors. Second, consistent with recent research (Lizardo et al. 2016), we underscore that social evaluations are not solely reliant on controlled processes and that automatic processes

may override controlled processes in social evaluations. Third and finally, our paper contributes to research that highlighted the consequences that COVID-19 pandemic has had on individual affective states as well as on economic actors.

2 THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

We first examine the traditional cognitive approach of the evaluation of atypicality. The cognitive approach emphasizes controlled processes. Then, we introduce the role of affects in influencing the evaluation of atypicality.

2.1 Cognitive approach to the evaluation of atypicality

A stream of research provides evidence that the atypicality of cultural goods impacts their reception (Askin & Mauskapf, 2017; Hannan, 2010; Silver et al., 2022). Atypicality is the extent to which an object diverges from the average features of a category (Rosch & Mervis, 1975). Categories are mental representations of cultural forms designed through socially shared labels (Hannan, 2010; Hannan et al., 2019). Category members are expected to possess typical attributes, i.e., those that are usually associated with the ideal representation of the category member (Rosch & Mervis, 1975). In cultural markets, genres act as meaningful categories that structure the artistic domain by locating cultural goods relative to one another (Becker, 1982).[2] Cultural goods, such as movies, books or songs, need to conform to these categories to express appropriateness (Hsu et al., 2009). For example, a romance movie is expected to show a love story, whereas a horror movie is expected to contain jump-scare scenes. Cultural goods

[2] Although genres are a classifying grid of perceptions and evaluations that audiences rely on as reference point when assessing the similarity among cultural goods, we acknowledge that a multiplicity of variables can be used as reference points. For example, movies can be compared to others in the same genre or to others released in the same year.

displaying novelty and innovativeness diverge from what is typically associated with their genre and become at the risk of being misunderstood and devaluated (Rao et al., 2005; Zuckerman, 1999). Many studies show how market audiences grant lower approval to more highly atypical cultural products than those that are clearly associated with a genre in the contexts of movies (Hsu et al., 2009), books (Kovacs & Hannan, 2015), or paintings (Sgourev & Althuizen, 2014).

However, audiences may also positively perceive atypicality. Atypicality is often perceived as a sign of novelty because atypical cultural goods diverge from prevailing categories and bring together things that were previously held separate (Sgourev & Althuizen, 2014; Uzzi et al., 2013). For instance, Berger and Packard (2018) show that higher atypicality predicts higher success on average in music. Given the joint presence of negative and positive effects related to atypicality, scholars have suggested that market offerings need to find a right balance between fitting it and standing out (Askin & Mauskapf, 2017; Silver et al., 2022). In this respect, the objective of our paper is not to hypothesize about the direct effect of atypicality on evaluation but to advance the research on the moderating mechanisms that affect this relationship (Zuckerman, 2017).

Most of the literature develops controlled, cognitive mechanisms to explain the positive or negative effects of atypicality. Some studies show how limitations on cognitive abilities influence the effects of atypicality on evaluations. Audiences tend to devalue market offerings that do not "fit in" because understanding them and evaluating them represent a cognitive burden (Hsu et al., 2009). Experimental studies show that evaluators process typical objects more fluently, which in turn fosters their appeal (Hannan et al. 2019, Winkielman Halberstadt, Fazendeiro, & Catty, 2006, Rosch & Mervis, 1975). Existing research also shows that the novelty generated by atypicality is appealing as long as audiences are able and willing to process this novelty (Mandler, 1982; Rindova & Petkova, 2007), depending on individual capacities, for instance (Barrett et al.,

2004; Cudennec & Durand 2023, DeCaro et al., 2008). However, in recent decades, research has increasingly developed the role of automatic processes, which are influenced by affects, in complementing cognitive processes in cultural sociology (Evans, 2008; Lizardo et al., 2016; Vaisey, 2009).

2.2 Accounting for affective factors in the evaluation of atypicality

Scholars have documented how automatic processes have priority over controlled processes[3] (Evans, 2008; Lizardo et al., 2016). Automatic processes override cognitive processes when evaluators are in a high affective state, even if they have sufficient cognitive resources to engage controlled processes (Epstein 1994; Bless et al., 1996; Slovic et al., 2007). Automatic evaluative processes are uncontrolled evaluations that are associative in nature and rely on stereotypes (Bargh & Williams, 2006; Smith & DeCoster, 2000). Individuals relying on automatic processes are likely to favor cut-clear categorizations, or "black-and-white" thinking, over more effortful piecemeal processing (Bar-Tal et al., 2013). Such simplified judgments help build a clearer, more organized, and more secure environment that requires lower cognitive effort (Strack & Deutsch, 2004).

In turn, as atypical cultural products do not neatly fit into existing categories, they require more analytical, rule-based, cognitive processing to be positively evaluated (Smith & DeCoster, 2000; Erickson & Kruschke, 1998; Lieberman et al., 2002). Notably, Lieberman et al. (2002) show how controlled processes are needed when evaluators' expectations are violated. Atypical products do not fit into existing genres and consequently are not easily evaluated. Therefore,

[3] For the sake of clarity, we emphasize only the affective dimension of automatic processes and we restrictively consider the controlled evaluative processes requiring high levels of cognitive resources to be cognitive. In a broader sense, affects also contain a cognitive dimension, as they contain information for evaluators (Lazarus, 1984). For a discussion of this distinction, see Lizardo et al. (2016).

when individuals rely on automatic processes, they are less likely to generate favorable evaluations of atypical cultural goods (Boulongne & Durand 2021). In this respect, contexts can induce affective states for evaluators (Hirshleifer & Shumway, 2003; Goldenberg & Gross, 2020) and make evaluators favor the use of automatic processes at the expense of controlled processes.

2.3 The affective dimension of crises and evaluation of atypicality

Crises represent sources of negative affects, such as fear, uncertainty, and anxiety. Recent history exemplifies such crises generating negative affects with economic crises (Von Scheve et al., 2016), migratory crises (Maestri & Monforte, 2020), and ecological crises (Panu, 2020). Notably, the COVID-19 pandemic generated an unprecedented, large-scale crisis that deeply impacted cultural industries (UNESCO, 2021). Studies across many countries also consistently document how the unsettling pandemic context has generated negative affects and, among them, higher levels of anxiety among individuals. Anxiety is a negative affective state characterized by a sense of uncontrollability and unpredictability (Barlow, 2000; Grupe & Nitschke, 2013). The literature indicates that on average, anxiety increased during the COVID-19 national lockdown compared to prepandemic levels. Lockdowns are government-enforced measures requiring residents to remain in a specific place during a certain period or face possible sanctions. A large-scale survey in France showed that anxiety increased during the lockdown period (Droit-Volet et al., 2020). Surveys in many other countries corroborate that the COVID-19 pandemic and/or lockdown policies increased anxiety (see Panchal et al., 2021 for a systematic review).

In summary, we expect that the COVID-19 lockdown announcement generated negative affects and impacted evaluators' receptions of atypicality, as they are induced to use automatic processes to evaluate atypical cultural goods. Hence, our hypotheses are as follows:

Hypothesis 1a: *The impact of atypicality on audience evaluations is negatively moderated by the COVID-19 lockdown announcement.*

Hypothesis 1b: *As audience members experience negative affective states, they generate more negative evaluations of atypical cultural products.*

3 STUDY 1: ARCHIVAL DATA STUDY

3.1 Empirical setting and data

Our empirical study focuses on movie evaluations. To test our hypotheses, we first use proprietary data from the French-speaking platform *Senscritique* (hereafter: SC*)*, a free social platform that enables users to share ratings and reviews in various cultural domains (movies, TV shows, video games, books, comics and music). Founded in 2011, SC has accumulated approximately 1.73 million evaluators. Collecting cultural data through social media enables us to avoid the biases of close-ended surveys assessing cultural tastes (Lewis & Kaufman, 2018). Note that we complement this first study focusing on ecological validity with two experimental studies focusing on internal validity (see Table 1 for a summary of the research design).

	Method	Sample	Objectives	Independent variable(s)	Main Results
Study 1	Observational	29.256 ratings on 5,024 movies by 1,840 evaluators (1,450 in France, 390 in Switzerland)	Testing our hypotheses with large-scale archival data before and during the COVID-19 lockdown across two countries (France, Switzerland)	Atypicality (continuous) x difference-in-difference effect of COVID-19 lockdown (treatment x time)	COVID-19 lockdown negatively moderates the relationship between atypicality and evaluation *H1a receives support*
	Observational *Supplementary analysis*	159,464 ratings on 7,685 movies by 16,624 French evaluators	Testing the role of weekly measures of anxiety at the level of the French population during the COVID-19 lockdown	Atypicality (continuous) x Anxiety (continuous score, weekly, population level)	A higher level of anxiety negatively moderates the relationship between atypicality and evaluation *H1b receives support*
Study 2	Experimental *Preregistered study*	200 students from a university in Hong Kong	Testing the causal link between COVID-19 lockdown announcement and negative affective state, and specifically, anxiety	Treatment (lockdown announcement vs. end-of-restrictions announcement)	Lockdown announcement treatment (v. control) leads to a significantly higher negative affective state and to a significantly higher anxiety
Study 3	Experimental *Pilot study*	80 French individuals	Testing the validity of the materials and the atypicality measure from Study 1	Atypicality (low, high)	A higher atypicality leads to a significantly higher perceived novelty
	Experimental *Preregistered study*	400 French individuals	Testing the causal link between the interaction of atypicality and negative affects/anxiety on movies evaluations	Atypicality (low, high) x treatment (control, negative affective state)	Negative affective state treatment (v. control) negatively moderates the mediation of perceived novelty on the effect of atypicality on evaluation *H1b receives support*

Table 1. Summary of studies

3.2 Empirical strategy: difference-in-difference design

In an attempt to contain the COVID-19 pandemic, many governments decided to use nationwide lockdowns. Lockdowns can be considered exogenous shocks in terms of social isolation and mental health in entire populations (Goodman-Bacon & Marcus, 2020).

To capture the causal effect of the COVID-19 lockdown, we rely on a difference-in-difference (DiD) approach (Angrist & Pischke, 2008; Goodman-Bacon & Marcus, 2020). We compare two countries that followed opposite strategies to handle the pandemic: France and Switzerland.[4] The French government implemented a nationwide complete lockdown from March 17 to May 3, 2020. In contrast, the Swiss government announced that no complete lockdown would be implemented, although some restriction measures would be enforced (partial border closure, ban of public gatherings of over five people, closure of schools, restaurants, bars, shops and leisure facilities). Self-isolation and self-quarantine were recommended but not enforced.[5] The excess death rate over that period suggests that Switzerland and France exhibited similar evolutions in their death rates compared to the average rates (for instance, +14% for Switzerland and +17% for France during the week of March 16-22, 2020).[6]

3.3 Sample

We gathered an initial sample that comprised all the evaluators in Switzerland and a random sample of evaluators in France,[7] and we subsampled all the evaluators who were committed and active before and during the lockdown period.[8] Our final sample comprised 1,840 evaluators,

[4] For a comparison, see https://www.ecdc.europa.eu/en/publications-data/download-data-response-measures-covid-19.
[5] Source: https://www.institutmontaigne.org/en/blog/les-etats-face-au-coronavirus-la-suisse-et-le-principe-responsabilite; https://www.institutmontaigne.org/en/blog/les-etats-face-au-coronavirus-la-suisse-et-le-principe-responsabilite
[6] Source: https://www.economist.com/graphic-detail/coronavirus-excess-deaths-tracker
[7] Our initial sample includes all the 1,416 Swiss evaluators who rated movies during the period. As for the French, because of data processing constraints, we had to limit the sample, so we gathered an initial random sample of 5,000 evaluators to limit the sample size because of data processing constraints.
[8] The evaluators were qualified as *committed* and active when they had rated at least 200 cultural products (movies, TV shows, video games, books, comics, music) since they registered on the platform and had rated at least one movie during the prelockdown period and at least one movie during the lockdown period. We excluded evaluators who rated more than four movies per day on average (representing the top 0.4%) as we expect them to have rated movies that they had previously watched in a very short period. Our findings are robust when we apply no filter or more conservative filters such as excluding evaluators with more than one movie review every two days on average (48 movies over 96 days).

including 1,450 in France[9] and 390 in Switzerland, who generated 28,278 ratings of 5,024 movies.

3.4 Dependent variable: Evaluation

The variable *evaluation* is the rating that an evaluator attributes to a movie, and it ranges from 1 to 10. The average evaluation in our sample is 6.35 (SD = 1.70).

3.5 Independent variables

3.5.1 Atypicality

The variable atypicality indicates how different a movie is from its genre. A movie's atypicality is measured through a topic modeling approach (McFarland et al., 2013). Topic modeling is a method of natural language processing (NLP) that helps uncover the latent semantic structure of a corpus of texts. Our approach consists of measuring how atypical a movie is, that is, how different a movie's synopsis compared to the other movie synopses of the same genre (e.g., romance, horror, comedy). Synopses communicate movies' plots, characters, and affective content, among other important features. Synopses are short texts, so we use biterm topic modeling (BTM) to analyze them (Cheng, Yan, Lan & Guo., 2014; Greve, Rao, Vicinanza & Zhou, 2022). BTM is less biased than traditional methods of topic modeling such as latent Dirichlet allocation (LDA) to analyze short texts (Cheng et al., 2014).[10]

[9] We performed a robustness check replacing the 1,450 evaluators in France by 1,296 evaluators in Belgium, whose situation was similar to France, and found similar findings.

[10] BTM does not model word co-occurrences at the level of a short document (e.g., synopsis); instead, BTM measures the co-occurrences of unordered pairs of words— "biterms"—in an entire corpus. In that way, BTM

In line with previous research, for every movie, we calculate atypicality as the absolute difference between the probability of belonging to a topic and the genre-average over every topic (Berger & Packard, 2018).

$$Atypicality_m = \sum_{k=1}^{K} abs[\Theta_{k,m} - \overline{\Theta}_{k,G}]$$

where $\Theta_{k,m}$ indicates movie m's weight for topic k and $\overline{\Theta}_{k,G}$ indicates genre G's average weight for topic k. We set the number of topics to K=50. Unreported analyses show that our results hold when using different numbers of topics (25, 75 and 100). The sampled movies have an average atypicality of 0.42 (SD = 0.19).

3.5.2 Time (pre- vs. *postlockdown announcement)*

The *time* variable takes a value of 1 for the lockdown period that occurred in France from March 17, 2020, for 48 days and 0 for the previous period with the same duration, i.e., 48 days before March 17, 2020. In our sample, 53% of the ratings were made during the lockdown.

3.5.3 Treatment (country)

The *treatment* variable takes a value of 1 for evaluators in a country where a lockdown occurred (i.e., France) and 0 otherwise (i.e., Switzerland). The ratings made by evaluators in France represent 80% of the total ratings in our sample.

3.5.4 Control variables

addresses the problem of the sparsity of word distributions within short documents. BTM estimates the probability of a document belonging to latent topics using the Gibbs sampling algorithm, similar to the traditional LDA approach. The model estimates the probability that a movie's synopsis is associated with every topic.

We control for variables at the levels of movies and evaluators. At the movie level, we control for previous evaluations of a focal movie: its *average evaluation* and its *number of evaluations*. Consistent with previous studies, the models include movie-level attributes: movies' *genre spanning* (measured as $1 - \frac{1}{N}$, where N is the number of genres to which a movie is affiliated, Hsu et al., 2009), the *length*, the *release year*, *release quarter*. Finally, for every movie, we measure the *director's experience* and the *distributor's experience* by counting the number of movies that the director and the distributor run in the past. We then include several evaluator-level controls. We measure the *evaluator's experience* as the number of movies she has rated in total since registering with the platform. We also capture the evaluator's engagement in the evaluation process by measuring her *number of followers* on the platform. Finally, we controlled for the demographic variables of *age* and *gender*. The variables are logged (and marked with an asterisk in all the tables) when their distributions are highly skewed to the right.

3.6 Results

The summary variables (mean, SD, min and max) and the pairwise correlations are displayed in Table 2. Table 3 presents the results of OLS models predicting movie ratings. The standard errors are cluster-robust at the movie level, one level above the unit of analysis, i.e., rating (Cameron & Miller, 2015; Pepper, 2002). Model 1 displays the results with only the control variables. In model 2, we test the direct relationship between *atypicality* and *movie rating*, and we find no significant relationship. The variance inflation factor (VIF) for our variable of interest – atypicality – is 8.16, which is below the rule-of-thumb threshold of ten, so multicollinearity is unlikely to be a concern. Model 3 includes the variables of time (pre- vs. postlockdown announcement) and treatment (country without lockdown vs. country with lockdown). In model

4, we test Hypothesis 1a by examining the DiD effect of the COVID-19 lockdown announcement on the relationship between movies' *atypicality* and *evaluation*. The DiD effect of the COVID-19 lockdown announcement is the interaction between *time* (pre- vs. postlockdown announcement) and *country* (Switzerland vs. France). Model 4 indicates that the lockdown negatively moderated the relationship between movies' *atypicality* and *evaluation* ($b = -0.81$, $p = 0.011$). This finding gives support to Hypothesis 1a. As an additional analysis, we found that while the effect of the interaction of time (pre- vs. postlockdown announcement) and atypicality on evaluation is positive and significant for the non-treated country ($b = 0.80$, $p = 0.005$), the relationship is non-significant in the treated country. We thus develop a robustness checks section (3.7) and a supplementary study (3.8) to investigate further our findings.

3.7 Robustness checks

3.7.1 Parallel trends assumptions

DiD designs rely on the assumption that the outcome displays no significant difference over time between the control group and the treatment group in the absence of treatment (Wing et al., 2018). To test that the pretrend slopes are parallel, we run an F test to determine whether the effects of atypicality on evaluation during the pretreatment period significantly differ between the treatment group and the control group (Wing et al., 2018). The F test shows no significant difference ($F(2, 3352) = 0.38$, $p = 0.685$), which gives support to the parallel trend assumption.

3.7.2 Time windows around the shock

In additional analyses, we vary the duration of the window used for our testing (see Appendices A and B). We found that effects are stronger as we shortened the window around the lockdown

announcement, providing additional evidence that the lockdown announcement, rather than unobserved variables, determines our effects.

3.7.3 Self-selection and Heckman's two-step approach

As evaluators select movies before evaluating them, self-selection bias might impact our findings (Li & Hitt, 2008). To address this concern, we rely on Heckman's two-step approach that examines, in the first stage, the likelihood of selecting a movie to watch. By definition, the movies that the evaluators had not selected are unobservable. We follow a factual-counterfactual approach (Sorenson & Stuart, 2008) to create, for each factual observation, a movie that the focal user has selected, and a set of counterfactual observations, comprising movies that the focal user has not selected but that she could have plausibly selected. For each observation, we identified a counterfactual observation that had the same main genre (42 categories), tercile of average evaluation, tercile of number of evaluations and the same decade of release (strictly before and after 2010). We then randomly selected up to four counterfactuals for every factual observation. A total of 6,926 observations (4.77% of our sample) did not find any match, so they were dropped from our analysis. Our final sample comprises 24,587 factual observations and 68,384 counterfactuals (2.9 per factual observation on average). We built the binary variable *movie selection* that takes 1 for factual observation and 0 for the associated counterfactual.

Then, we implemented a Heckman two-step model using the binary variable movie *selection* as the outcome of the first stage and movie *evaluation* as the outcome of the second stage.[11]. In Appendix C, Model C1 displays the first stage of selection, and Model C2 displays

[11] The first-stage exclusion-restriction variable is the movie's *main actor experience* (i.e., number of movies in which the main actor has participated in the past). We expected that the prominence of the main actor was likely to affect the likelihood for a user to select the movie, while it should not directly impact the movie's evaluation. We found that the higher the main actor's experience, the lower the likelihood of selecting the movie ($b = .02$, $p < .001$)

the second stage of evaluation that replicates Model 4 except that it includes the inverse Mills ratio (IMR). Model C2 shows that the effect expected in Hypothesis 1a, the negative moderation of the COVID-19 lockdown announcement (time * treatment) on the movies' atypicality, remains negative and statistically significant. Overall, this result is robust even when accounting for the evaluator self-selection.

3.8 Supplementary analysis: anxiety among the French population

Thus far, drawing from recent research on the effects of the COVID-19 lockdown on population anxiety, we have argued that anxiety was likely to explain why the lockdown influenced the effect of atypicality on movie evaluations. Ideally, we would have observed the level of anxiety of movie evaluators in France and Switzerland before and after the lockdown decision. Unfortunately, these data are unavailable. Instead, we used a publicly available database called Coviprev which is maintained by "*Santé Publique France*" (the French National Health Agency) that surveyed the French people anxiety from one week after the lockdown decision (March 23, 2020) to the end of the lockdown (May 11, 2020). In parallel, we collected the movie evaluations made by French users during that period of time. Our final sample includes 16,624 French evaluators and 7,685 movies. Appendix D shows the summary and correlation tables as well as the details of the construction of the anxiety score.

in the first stage. Additionally, a linear regression between the main actor's experience and movie evaluation shows no statistical significance, which confirms the relevance of the main actor's experience as an exclusion restriction.

		Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Evaluation	6.35	1.70	1.00	10.00	1.00													
2	Atypicality	0.33	0.13	0.06	1.00	0.09	1.00												
3	Time (pre-, postlockdown announcement)	0.80	0.40	0.00	1.00	-0.03	-0.01	1.00											
4	Treatment (country)	0.53	0.50	0.00	1.00	0.01	-0.01	0.05	1.00										
5	Average evaluation	6.50	1.04	1.50	8.90	0.58	0.15	-0.01	0.00	1.00									
6	Number of evaluations*	9.12	1.49	1.39	11.89	0.21	0.15	-0.08	-0.02	0.35	1.00								
7	Genre Spanning	0.48	0.28	0.00	0.88	0.06	0.13	-0.04	-0.03	0.12	0.33	1.00							
8	Length (minutes)	112.83	21.83	37.00	183.00	0.15	0.10	-0.03	-0.01	0.26	0.32	0.22	1.00						
9	Director experience*	2.67	0.84	0.69	5.54	0.17	0.17	0.01	-0.01	0.29	0.24	0.15	0.26	1.00					
10	Distributor experience*	5.43	1.16	0.69	6.92	-0.07	-0.01	-0.05	-0.01	-0.15	0.22	0.06	0.15	-0.09	1.00				
11	Evaluator experience	1011.16	772.48	17.00	2842.02	-0.19	-0.06	0.07	0.03	-0.16	-0.42	-0.11	-0.12	-0.07	-0.09	1.00			
12	Evaluator number of followers*	2.24	1.44	0.00	7.87	-0.09	-0.03	0.11	0.14	-0.01	-0.26	-0.08	-0.08	-0.02	-0.09	0.50	1.00		
13	Evaluator age	28.14	9.23	17.00	66.00	-0.08	-0.04	0.02	0.04	-0.07	-0.16	-0.04	0.00	-0.05	0.00	0.30	0.07	1.00	
14	Evaluator gender	0.25	0.43	0.00	1.00	0.01	-0.02	0.06	0.10	0.01	0.01	-0.05	-0.01	-0.05	0.02	-0.21	-0.03	-0.08	1.00

Table 2. Summary and correlation tables (study 1)
Note: The variables with an asterisk are logged

DV: Evaluation (movie rating)	1	2	3	4
Atypicality		0.01	0.01	-0.39+
		(0.074)	(0.074)	(0.226)
Time (pre-, postlockdown announcement)			-0.06***	-0.29**
			(0.017)	(0.103)
Treatment (lockdown in country)			0.11***	0.00
			(0.021)	(0.085)
Atypicality x Time				0.80**
				(0.284)
Atypicality x Treatment				0.40
				(0.241)
Time x Treatment				0.23*
				(0.114)
Atypicality x Time x Treatment				-0.81*
				(0.317)
Movie-level controls				
Average evaluation	0.97***	0.97***	0.97***	0.96***
	(0.013)	(0.013)	(0.013)	(0.013)
Number of evaluations	-0.07***	-0.06***	-0.07***	-0.07***
	(0.008)	(0.008)	(0.008)	(0.008)
Genre spanning	0.00	0.00	0.01	0.01
	(0.038)	(0.038)	(0.038)	(0.038)
Length (minutes)	-0.00	-0.00	-0.00	-0.00
	(0.000)	(0.000)	(0.000)	(0.000)
Director experience	-0.01	-0.01	-0.01	-0.01
	(0.013)	(0.013)	(0.013)	(0.013)
Distributor experience	0.03**	0.03**	0.03**	0.03**
	(0.008)	(0.008)	(0.008)	(0.008)
Evaluator-level controls				
Evaluator experience	-0.00***	-0.00***	-0.00***	-0.00***
	(0.000)	(0.000)	(0.000)	(0.000)
Evaluator number of followers	-0.06***	-0.06***	-0.07***	-0.07***
	(0.007)	(0.007)	(0.007)	(0.007)
Evaluator age	-0.00**	-0.00**	-0.00***	-0.00***
	(0.001)	(0.001)	(0.001)	(0.001)
Evaluator gender (0 = Male, 1 = Female)	-0.07***	-0.07***	-0.08***	-0.08***
	(0.021)	(0.020)	(0.020)	(0.020)
Fixed effects: Release year, release quarter, country, genre	Yes	Yes	Yes	Yes
Constant	1.01***	0.99***	0.95***	1.06***
	(0.101)	(0.102)	(0.103)	(0.125)
Observations	29,303	29,256	29,256	29,256
Adjusted R-squared	0.353	0.353	0.354	0.354

Table 3. Effects of atypicality and COVID-19 lockdown announcement on movie evaluations (OLS regressions)

Note: OLS regressions. Robust standard deviations clustered at the movie level are in parentheses. *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

We use the same regression models as in the main analyses, except that we replace the lockdown variable (time*treatment) with our anxiety score. The results are presented in Appendix E. As expected, Model E4 indicates that the interaction between atypicality and anxiety is negatively associated with movie evaluations although the statistical significance is relatively low (p=.082).[12] This finding gives some support to our Hypothesis 1b.

3.9 Discussion of study 1

The findings from Study 1 suggest that while atypicality is associated with lower evaluations, this relationship was exacerbated in the context of the COVID-19 lockdown. While the evaluators from both countries displayed evaluations of atypicality that followed similar trends before the COVID-19 lockdown treatment, the evaluators from the non-treated country (Switzerland) were more open toward atypicality after the lockdown announcement while the evaluators from the treated country (France) were not. As our robustness checks show, these effects appear even more clearly when we compare the movie evaluations only one week after and those one week before the lockdown announcement, in contrast with movie evaluations in the non-treated country. Our supplemental analyses also show that our findings are robust to potential selection effects of cultural products. Affective states impact the evaluation of atypicality.

Our supplementary analysis relying on a large-scale weekly survey measuring French population anxiety provides some additional support that higher anxiety moderates the relationship between movies' atypicality and their evaluations. However, although these

[12] We distinguished the three components of anxiety (region, age and gender). While the effects follow the same trends, the effect is significant when taking the anxiety score by gender (b = -.01, p = .051) but not significant with anxiety by region or anxiety by age.

supplementary findings give ecological validity to our hypotheses, they provide only correlational evidence. Thus, we run experimental studies to check the causality and internal validity of our findings.

4 STUDY 2

Thus far, we have examined the impact of the French COVID-19 lockdown announcement on movie ratings in 2020 using longitudinal data obtained from a French platform (Study 1). We have argued that the lockdown announcement affects individuals' evaluations of atypicality by increasing negative affective states and anxiety. The following preregistered experimental study[13] (Nosek et al., 2018) aims to test whether a lockdown announcement is likely to increase negative affective states and anxiety.

4.1 Design and sample

This study employed a between-subject design with two conditions. A total of 200 participants were recruited from a large public research university in Hong Kong. Participants received compensation recommended by the university lab, which is equivalent to USD 0.64, to complete our survey. Participants had an average age of 21.13 years (SD = 3.02), and 76.50% of them were female. The majority of participants were either from Hong Kong (67.50%) or Mainland China (27.50%).[14]

4.2 Dependent variables

[13] The preregistration document is accessible at the following link: https://aspredicted.org/Y77_9BG
[14] Our sampling strategy is consistent with our treatment because Hong Kong still imposed restrictions related to the COVID-19 pandemic in the beginning of 2023 at the time this experiment was conducted.

4.2.1 Negative affect

To assess participants' affective states, we used the I-PANAS-SF (Thompson, 2007; Watson et al., 1988). The variable of negative affect is the mean of the scale's five negative affects.[15] The Cronbach's alpha among these five items is 0.85. The possible scores range from 1 to 5. The variable of negative affect has a mean of 2.22 out of 5 (SD = .90) across the two conditions.

4.2.2 State anxiety

To measure the individuals' state anxiety levels, we used a shortened version of the State-Trait Anxiety Inventory (STAI) (Marteau & Bekker, 1992).[16] We reversed the scores of items 1, 4, and 5, and the Cronbach's alpha across all six items was 0.79. The variable of state anxiety is the mean of the scores of the six items. The possible scores range from 1 to 4. The variable of state anxiety has a mean of 2.27 (SD = .61) across the two conditions.

4.3 Independent variables

4.3.1 Treatment: lockdown announcement

Our treatment relies on the method of scenario vignettes (Atzmüller & Steiner, 2010). Participants in the treatment condition were presented with a news article announcing the

[15] Participants assessed the extent to which their current affective state is associated with a list of ten affects, including five positive affects ("active", "determined", "attentive", "inspired", and "alert") and five negative affects ("afraid", "nervous", "upset", "hostile" and "ashamed"). Participants were presented all ten items instead of only the five negative items to avoid creating any bias due to a demand effect. The findings do not change in terms of effect size or statistical significance when building the measure on the ten items (five negative affects and five reversely-coded positive items).

[16] There are six items to measure state anxiety: "Right now, I feel calm", "Right now, I am tense", "Right now, I feel upset", "Right now, I am relaxed", "Right now, I feel content", and "Right now I feel am worried".

implementation of a lockdown by the government to combat the surge of the COVID-19 pandemic. In contrast, participants in the control condition were presented with an article indicating that the government had announced the end of the remaining pandemic-related restrictions. See the vignettes in Appendix F. Following the vignette-reading step, participants in both conditions were asked to imagine that they wanted to report the news to a family member or friend and were asked to write a short text summarizing the news they had just read. Participants were free to type their response in a text box provided to them. An attention check was administered at the end of the survey. The random allocation process led to the assignment of 92 participants to the control condition and 108 participants to the treatment condition. The variable takes 1 if the participant was assigned to the treatment condition and 0 otherwise.

4.3.2 Control variables

Before closing the survey, we collected information on participants' age, gender, nationality and whether they had previously undergone a lockdown or a compulsory quarantine during the COVID-19 pandemic.

4.4 Results

Our objective was to test whether the announcement of a lockdown elicits negative affects and a state of anxiety. To test this, we first analyzed the effect of our treatment on individuals' affective state. Our analysis, using a two-tailed t test, revealed that the announcement of the lockdown led to significantly higher negative affective state than the announcement of the end of restrictions. ($M_{control}$= 1.98, $SD_{control}$= 0.87; M_{treat}= 2.51, SD_{treat} = 0.84; t = 3.77, p < .001). Similarly, a

two-tailed t test indicates that the lockdown announcement led to significantly higher anxiety ($M_{control}$= 2.15, $SD_{control}$= 0.57; M_{treat}= 2.41, SD_{treat} = 0.64; t = -3.15, p = .002).[17]

4.5 Discussion of study 2

This preregistered experimental study is consistent with our the macrolevel longitudinal evidence on the effect of lockdown on anxiety. We found that learning about the announcement of a COVID-19 lockdown leads to decreased positive affects of individuals and to increased levels of anxiety. The story was fictional but called to recent memories of restrictive measures, which is a conservative test of the effect of a lockdown announcement. Our experimental manipulation elicited significantly lower positive affects and higher anxiety among participants. Overall, Study 2 shows that the COVID-19 lockdown announcement was likely to cause lower positive affects and an increased level of anxiety.

5 STUDY 3

We have theorized that movie atypicality impacts the evaluations made by movie goers and that this effect is affected by individuals' affective states. Based on previous large-scale survey research, we have argued that the COVID-19 lockdown announcement was likely to increase anxiety among individuals, a proposition that our Study 2 corroborates experimentally. In the following experimental study, we examine whether higher anxiety negatively moderates the effect of atypicality on movie ratings. Our third study complements existing literature on how cognitive load affects the evaluation of atypicality (Gilbert & Hixon, 1991; Lo & Kennedy, 2015; Yang & Li, 2023). We only manipulate participants' affective state, leaving their cognitive

[17] ANOVAs show that the effects of our treatment remain significant when we include the control variables (gender, age, nationality, previous experience of lockdown or quarantine).

load unaltered[18]. We first ran a pilot study on a sample of 80 French individuals to design our study's materials (see Appendices G and H). We also preregistered the study's hypotheses, design, variables, and sample size[19] (Nosek et al., 2018).

5.1 Design and sample

This is a 2 (atypicality: low, high) by 2 (affect: neutral, negative) between-subject design. We recruited a random sample on the online research platform *Prolific* (Peer et al., 2017). Participants received compensation recommended by the Prolific platform, which is equivalent to USD 1.10, to complete our survey. To ensure comparability with Study 1, we recruited only French evaluators. As planned, we gathered a random sample of 400 individuals, who were on average 27.71 years old (SD = 8.60), and 48.75% were female (SD = 0.50). The median duration of the survey was close to 7 minutes (median = 411 seconds, SD = 203).

5.2 Procedure

First, we asked participants to write a short text about a personal life event that had made them feel "anxious and negative" or to write about an "average, normal, typical weekday" (Gasper & Clore, 2002). They were given 3 minutes to complete this task. Second, they reported their affective states as a manipulation check (see measures below). Third, we presented participants with a vignette describing one movie. The presentation mimicked the design on SC's website (i.e., the data source from Study 1) and included fictional general information on the movie (director, genre, length,

[18] We follow a process dissociation approach (e.g., Conway & Gawronski, 2013, for dual processes in moral judgments). As extent evidence already documents the controlled processes, we focus on automatic processes and only manipulate participants' affective state. Our design seeks to provide some evidence that participants' affective states influence their evaluations as automatic processes are less suited to atypical cultural goods. Further research can further identify the dual nature of the processes at play by simultaneously manipulating cognitive load and affective state.

[19] The preregistration document is accessible at the following link: https://aspredicted.org/NF7_YDN

release date). Synopses were taken from actual, existing movies. From an initial sample of twelve synopses (Appendix G), we selected two synopses of similar length, with different levels of atypicality and with similar PANAS scores to avoid the synopses generating different affective states that would interfere with our treatment (Appendices H1 and H2). Participants were asked to rate the movie and its perceived novelty and to answer questions measuring our control variables.

5.3 Dependent variable

5.3.1 Evaluation

After reading every movie's synopsis, participants were asked "Would you be interested in watching this movie?" (1 = "not interested at all", 5 = "extremely interested"). The score is the variable of *evaluation*. The average evaluation score is 2.35 (SD = .99) across the conditions.

5.4 Independent variables

5.4.1 Atypicality

The variable takes a value of 1 for high atypicality and 0 for low atypicality. Movies' levels of atypicality were based on Study 1's data and measurement, and the differences in perceptions of atypicality were verified in a pilot sample (see Appendix G).

5.4.2 Negative affect

This is a binary variable that takes a value of 1 for negative affective state and 0 for neutral affective state (control condition).

5.4.3 Mediator: perceived novelty

Adapting the items from Blijlevens et al. (2017), we asked participants to rate the extent to which the movie appeared to be "atypical", "rare", "original" and "innovative" (1 = "do not agree at all", 5 = "totally agree"). Cronbach's alpha is 0.905. The variable is the average of the four items and has a mean of 1.84 (SD = .82) across the conditions.

5.4.4 Control variables

As control variables, we used genre appeal (individuals' tastes for romance movies), experience intensity (frequency with which they watched movies), self-assessed knowledge of cinema, age and gender (binary variable that takes a value of 1 for female and 0 otherwise). See Appendix I for the detailed control variables.

5.5 Manipulation check

After being exposed to the affect treatment (neutral or negative), as a manipulation check, participants took the I-PANAS-SF, the same scale as in Study 2. The Cronbach's alpha among the five negative affect items is 0.80 The possible scores range from 1 to 5. As expected, participants who were primed with a negative affective state had a significantly higher negative affective state to those in the control condition ($panas_{control} = 2.11$, SD = .85, $panas_{neg} = 2.57$, SD = .87, t = -5.38, $p < .001$).

5.6 Hypothesis testing

We test whether anxiety treatment negatively moderates the effect of atypicality on evaluation (Hypothesis 1). Our models use Hayes' PROCESS macro (Hayes, 2018). We present below the models that include our controls. As shown in Appendices J and K, the models show similar but slightly less significant effects when our controls are excluded. First, movie atypicality predicts a higher perceived novelty (b = .469, p <.001), and perceived novelty is associated with higher evaluation (b = .513, p <.001). Overall, perceived novelty significantly mediates the effect of atypicality on evaluation (see Appendix J for the detailed results). We found that the anxiety treatment negatively moderates the relationship between perceived novelty and evaluation (b = -.214, p = .008). Individuals in the anxiety condition were likely to judge novelty stemming from atypicality as less appealing than individuals in the control condition. Overall, the index of moderated mediation is negative and statistically significant (b = -.138, CI = [-.259, -.033]). Anxiety treatment thus negatively moderates the effect of movies' atypicality on evaluation through the mediation of the perceived novelty of the movies (see Appendix K for the detailed results). This finding gives support to Hypothesis 1. Fig. 1 illustrates the model and the findings.

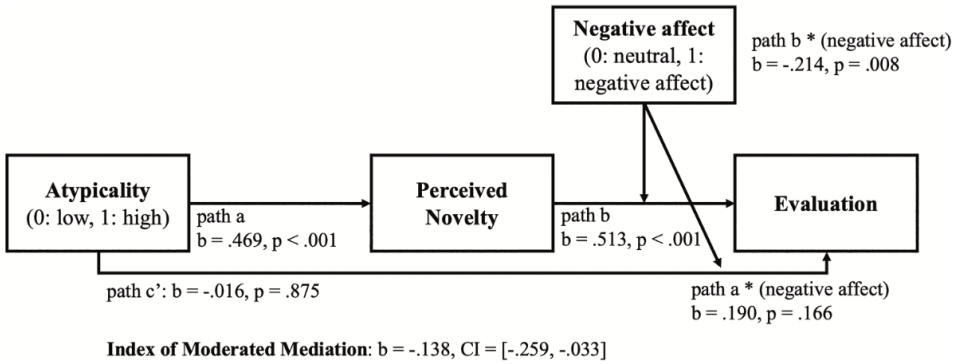

Fig. 1. Moderated mediation of anxiety treatment (Study 3).

Note: The index of moderated mediation of our treatment of negative affect is significant (b = -.138, CI: [-.259, -.033], 10,000 bootstrap samples), which indicates that anxiety significantly negatively moderates the mediation of perceived novelty on the effect of movie atypicality on evaluation. These models include all our control variables: genre appeal, experience intensity in cinema, knowledge of cinema, age and female gender.

5.7 Discussion of study 3

In this preregistered study, we found that more highly atypical movies receive a higher evaluation and that perceived novelty is a mechanism of this effect. While participants perceived more atypical movies as more novel regardless of their anxiety condition, participants in the anxiety condition evaluated perceived novelty lower than participants in the control group. In total, being under a condition of higher anxiety causes an evaluator to perceive the novelty of more atypical movies less favorably.

6 GENERAL DISCUSSION

Stable cognitive attributes are not the only determinants of how audiences evaluate atypical cultural forms. Rather, the reception of atypicality varies with context, specifically in response to changes in affective states. In this paper, our results indicate that the experience of lockdown negatively influenced the effect of atypicality on evaluation. Based on the findings of multiple large-scale surveys conducted worldwide, we hypothesized that an increase in anxiety among audiences could explain these effects. Our supplementary analysis of secondary data on population anxiety levels during the lockdown revealed that anxiety was likely to a negative moderating effect on the relationship between movie atypicality and evaluations, although the statistical significance of the effect is relatively low. We conducted a controlled experiment ("Study 2") that provided causal evidence that the COVID-19 lockdown announcement leads to significantly more intense affective state, including anxiety, among individuals. Finally, Study 3 uses a controlled experiment and shows that higher levels of anxiety, in conjunction with atypicality, had a causal impact on evaluations. While in the longitudinal Study 1, atypicality has

a negative relationship with audience evaluations when controlling for its interaction with COVID-19 lockdown announcement (Model 4), our experiment in Study 3 shows a positive direct effect of atypicality on audience evaluations. As preregistered, our study focused only on investigating the moderating role of negative affects on the evaluation of atypicality. When anxiety is higher, although more highly atypical movies are perceived as more novel, perceived novelty itself becomes less appealing than under normal circumstances.

This paper makes several contributions to the literature. First, it adds to the literature on cultural goods' evaluations and, in particular, to research on the reception of atypicality in cultural markets (Askin & Mauskapf, 2017; Berger & Packard, 2018; Kovacs & Hannan, 2015). Recent research has emphasized that market audiences display heterogeneous tastes for atypicality (Zuckerman, 2017), which can vary with their cultural experience (Goldberg et al., 2016), domain expertise (Cudennec & Durand, 2023), or political ideology and lifestyle (DellaPosta et al., 2015), among other factors. However, this paper emphasizes that audiences' tastes vary over time and across spaces due to contextual affective factors. By drawing on previous research on the role of automatic and controlled evaluative processes (Evans, 2008), we highlight that contextual factors give rise to affective states capable of shaping evaluations of cultural goods in a systematic way. Such contextual factors have the potential to tip the evolution of cultural markets at a large scale by affecting the reception of atypical cultural goods (Askin & Mauskapf, 2017; Goldberg et al., 2016). Our studies also suggest atypical cultural goods' novelty relates to an implicit dimension of culture that audiences are not aware of (Lizardo, 2022) and whose access depends on audiences' affective states.

Second, our paper contributes to research on the interplay between the cognitive and affective dimensions of social evaluations (Evans, 2008; Lerner et al., 2015). A traditional view

assumes that individuals form social evaluations through controlled, analytical, and cognitive processes. In this view, the stable judgment of a cultural good is a result of an effortful cognitive assessment of its appropriateness compared with a set of expected attributes. Scholars have challenged this view theoretically and proposed that social evaluations involve not only controlled but also automatic processes (Lizardo et al., 2016). In our paper, we highlight that automatic processes can actually override controlled processes, favoring the positive evaluations of cultural goods that do not violate evaluators' expectations in terms of genres and do not require an analytical rule-based assessment. In doing so, we provide a more nuanced understanding of the evaluation process of atypicality.

Third and finally, this study sheds new light on important societal consequences of the COVID-19 pandemic. Recent research has documented the psychological impacts of policies aimed at containing the pandemic, including national lockdowns (Panchal et al., 2021). These effects go beyond the ephemeral underappreciation of specific cultural products during the crisis itself, as they can alter the longer-term formations of cultural taste (Kaufman, 2004). Our findings could be relevant to various stakeholders of the cultural industry considering that the COVID-19 pandemic has had dramatic economic consequences for them (see Khlystova, Kalyuzhnova and Belitski (2022) for a review). Further research could study the extent to which the short-term impacts of anxiety on evaluation patterns could more durably upset the existing cultural landscape and practices.

In spite of the contributions made by our paper, it is not exempt from certain limitations. First, our experimental design in Study 3 does not fully identify the dual nature of the evaluative processes at play (Gawronski & Creighton, 2013). We did not simultaneously manipulate automatic and controlled evaluative processes. Due to resource constraints, we relied on existing

evidence on the existence of controlled processes and focused only on the influence of automatic processes. Further research can examine the joint impact of automatic and controlled processes, when they work in concert or in opposition. Second, in Study 1, data limitations did not allow to capture the actual change in the anxiety of our sampled individuals resulting from the COVID-19 lockdown. Instead, we inferred anxiety based on their characteristics, making them more or less exposed to anxiety. To address this limitation, we conducted a controlled experiment (Study 2) that brings causal evidence that the COVID-19 lockdown increased anxiety. We corroborated this finding using a rich set of secondary data on the French population (cf.: Study 1's supplementary analysis), consistent with existing literature (e.g., Droit-Volet et al., 2020). Nevertheless, we see an opportunity for future research to analyze individual-level ratings data coupled with fine-grained data on individuals' affective states. To our knowledge, such data are not accessible at a large scale. Another limitation of Study 1 is that the location of the evaluators is inferred from the location they had indicated at the time of their registration. We cannot exclude the possibility that some of them moved since they first registered their locations, potentially relocating to another country with different levels of social restrictions. However, we assume that only a small number of the individuals in our sample would have changed countries since the time of their registration, which should not significantly affect our findings. Finally, we acknowledge that lockdown could foster alternative affective and behavioral changes such as boredom (Droit-Volet et al., 2020), fear of death (Takeuchi et al., 2021), and feelings of loneliness (Kovacs et al., 2021). Beyond the context of the COVID-19 lockdown, research shows that individuals can feel both negative and positive affects at the same time (Fong, 2006). Investigating these factors to explain the potential changes in cultural tastes post-COVID crisis is an interesting area for further research.

Our perspective on the interplay between automatic and controlled processes in cultural evaluations is transposable in other empirical domains beyond movies' evaluations. First, our findings speak to research on the consequences of atypicality that investigated various market settings, such as music, books, restaurants, wines, paintings, law firms, and venture capital (see Silver et al., 2022 for a recent review). Second, while we focused on the COVID-19 pandemic as an external shock affecting the affective states of individuals, our perspective can be applied to other contexts and empirical phenomena. For example, our approach could be used to investigate the impact of other external shocks, such as natural disasters or economic downturns.

In conclusion, our study highlights the importance of considering that evaluation processes do not occur in an affective vacuum. Events and external shocks that trigger affects at a large scale are likely to affect individuals' tastes for atypicality. Our approach, we hope, provides a valuable framework for further research in diverse contexts, shedding light on the complex interplay between individual and social factors in shaping evaluative outcomes.

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APPENDICES

Appendix A. Study 1's robustness checks — Time windows around the shock

In our main models, we compare the full period of the 48-day lockdown with the previous period of 48 days before the lockdown announcement. If our effects were indeed explained by the shock of the COVID-19 lockdown announcement rather than by other unobserved variables, then the magnitude of the effects should be even stronger as the time window gets closer to the shock. To test this possibility, we look at the lockdown announcement's effect across broader time windows (6 weeks before and after the lockdown announcement; see Table 5, Model 5) to narrower (1 week before and after the lockdown announcement; see Table 5, Model 10). Models 5 to 10 show that the negative moderation of the lockdown is increasingly accentuated as the time window around the shock is shorter, although the effect became marginally significant in Model 10 ($p = .089$) as the number of observations declined. Overall, these findings provide additional evidence that the lockdown announcement, rather than unobserved variables, determines our effects.

DV: Evaluation (movie rating)	B1	B2	B3	B4	B5	B6
-/+ n of weeks from lockdown announcement	-/+ 6 weeks	-/+ 5 weeks	-/+ 4 weeks	-/+ 3 weeks	-/+ 2 weeks	-/+ 1 week
Atypicality	-0.40	-0.53+	-0.63+	-0.92*	-1.00*	-0.88
	(0.244)	(0.291)	(0.322)	(0.388)	(0.502)	(0.727)
Time (pre-, postlockdown announcement)	-0.03	0.05	0.08	0.00	-0.04	-0.27
	(0.090)	(0.105)	(0.117)	(0.140)	(0.179)	(0.264)
Treatment (lockdown in country)	0.40	0.48	0.53	0.83*	0.82	0.89
	(0.256)	(0.305)	(0.341)	(0.410)	(0.529)	(0.776)
Atypicality x Time	-0.29**	-0.28*	-0.39**	-0.45**	-0.58**	-0.58+
	(0.109)	(0.124)	(0.137)	(0.158)	(0.213)	(0.305)
Atypicality x Treatment	0.73*	0.87*	1.17**	1.41**	1.77**	1.45+
	(0.303)	(0.348)	(0.388)	(0.454)	(0.608)	(0.873)
Time x Treatment	0.23+	0.18	0.20	0.28	0.42+	0.74*
	(0.121)	(0.137)	(0.153)	(0.179)	(0.233)	(0.335)
Atypicality x Time x Treatment	-0.75*	-0.85*	-1.08*	-1.34**	-1.54*	-1.65+
	(0.339)	(0.385)	(0.435)	(0.518)	(0.673)	(0.971)
Movie-level controls						
Average evaluation	0.97***	0.97***	0.96***	0.97***	0.98***	0.98***
	(0.013)	(0.015)	(0.016)	(0.018)	(0.022)	(0.032)
Number of evaluations	-0.06***	-0.06***	-0.06***	-0.07***	-0.07***	-0.08***
	(0.009)	(0.010)	(0.011)	(0.012)	(0.015)	(0.023)
Genre spanning	-0.03	-0.03	-0.05	-0.06	-0.11	-0.16
	(0.040)	(0.044)	(0.049)	(0.057)	(0.070)	(0.104)
Length (minutes)	-0.00	-0.00	-0.00	0.00	0.00	-0.00
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Director experience	-0.01	-0.00	-0.00	0.00	0.02	0.03
	(0.014)	(0.015)	(0.016)	(0.019)	(0.023)	(0.034)
Distributor experience	0.02**	0.02*	0.03*	0.03*	0.03	0.02
	(0.009)	(0.010)	(0.011)	(0.012)	(0.016)	(0.022)
Evaluator-level controls						
Evaluator experience	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Evaluator number of followers	-0.07***	-0.09***	-0.08***	-0.09***	-0.05***	-0.04*
	(0.007)	(0.008)	(0.009)	(0.010)	(0.013)	(0.018)
Evaluator age	-0.00**	-0.00***	-0.00**	-0.00*	-0.00	-0.01***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.003)
Evaluator gender (0 = Male, 1 = Female)	-0.09***	-0.11***	-0.12***	-0.18***	-0.17***	-0.05
	(0.021)	(0.023)	(0.025)	(0.030)	(0.037)	(0.051)
Fixed effects: Release year, release quarter, country, genre	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.10***	1.11***	1.15***	1.17***	1.04***	1.50***
	(0.133)	(0.149)	(0.166)	(0.195)	(0.247)	(0.362)
Observations	25,980	21,418	17,407	13,228	8,627	4,232
Adjusted R-squared	0.359	0.361	0.361	0.364	0.367	0.371

Appendix B. Effects by time windows before and after lockdown announcement
Note: OLS regressions. Robust standard deviations clustered at the movie level are in parentheses. *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

DV	C1 Selection	C2 Evaluation
Atypicality	0.07	-0.31
	(0.114)	(0.244)
Time (pre-, postlockdown announcement)	-0.03	-0.34**
	(0.056)	(0.114)
Treatment (lockdown in country)	-0.06	0.80*
	(0.161)	(0.316)
Atypicality x Time	-0.05	-0.11
	(0.045)	(0.098)
Atypicality x Treatment	0.08	0.53*
	(0.128)	(0.267)
Time x Treatment	0.09	0.41**
	(0.062)	(0.134)
Atypicality x Time x Treatment	-0.14	-1.08**
	(0.179)	(0.361)
Movie-level controls		
Average evaluation	0.00	0.98***
	(0.005)	(0.014)
Number of evaluations	-0.00	-0.07***
	(0.004)	(0.009)
Genre spanning	0.08***	0.07
	(0.017)	(0.055)
Length (minutes)	-0.00	-0.00+
	(0.000)	(0.001)
Director experience	0.04***	0.04
	(0.006)	(0.023)
Distributor experience	0.04***	0.06**
	(0.004)	(0.021)
Main actor experience	-0.02***	
	(0.005)	
Evaluator-level controls		
Evaluator experience		-0.00***
		(0.000)
Evaluator number of followers		-0.06***
		(0.007)
Evaluator age		-0.00**
		(0.001)
Gender (0 = Male, 1 = Female)		-0.05*
		(0.022)
Fixed effects: Release year, quarter, country, main genre	No	Yes
IMR		1.25+
		(0.665)
Constant	-0.89***	-0.80
	(0.057)	(0.989)
Observations	96,444	24,538
Adjusted R-squared		0.350

Appendix C. Heckman two-step approach on the effects on movie selection and evaluation
Note: Model 11 displays the selection model of the Heckman two-step approach with *movie selection* as a binary dependent variable and movie's *main actor's experience* as an exclusion restriction variable. In Model 11, rho = 0.73 and sigma = 1.75. Model 12 is a replication of Model 4 except that it includes the inverse Mills ratio (IMR) as a covariate. Robust standard deviations clustered at the movie level are in parentheses. *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

		Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	**Evaluation**	6.42	1.70	1.00	10.00	1.00															
2	**Atypicality**	0.35	0.16	0.01	1.00	0.08	1.00														
3	**Anxiety (average of all items)**	20.48	3.06	13.50	34.03	0.02	0.00	1.00													
4	**Anxiety (by region)**	19.63	3.34	12.20	33.00	-0.01	0.00	0.77	1.00												
5	**Anxiety (by age)**	23.97	4.06	12.50	37.50	0.02	0.01	0.82	0.54	1.00											
6	**Anxiety (by gender)**	17.84	4.24	13.60	31.60	0.02	-0.02	0.77	0.36	0.40	1.00										
7	**Average evaluation**	6.53	1.02	1.50	8.90	0.59	0.14	0.01	-0.02	0.01	0.02	1.00									
8	**Number of evaluations***	9.19	1.46	0.69	11.89	0.21	0.15	0.04	0.00	0.07	0.02	0.36	1.00								
9	**Genre Spanning**	0.47	0.28	0.00	0.88	0.06	0.15	0.00	0.01	0.02	-0.03	0.12	0.33	1.00							
10	**Length (minutes)**	113.08	22.73	15.00	179.00	0.15	0.11	0.00	0.00	0.01	-0.01	0.26	0.33	0.24	1.00						
11	**Director experience***	2.67	0.84	0.69	5.54	0.18	0.17	-0.01	-0.01	0.01	-0.04	0.29	0.25	0.15	0.27	1.00					
12	**Distributor experience***	5.43	1.16	0.69	6.92	-0.07	-0.01	0.02	0.01	0.02	0.01	-0.13	0.22	0.06	0.16	-0.07	1.00				
13	**Evaluator experience**	64.72	57.87	1.00	319.00	-0.05	0.00	-0.05	-0.04	-0.01	-0.07	-0.06	0.04	0.01	-0.03	0.04	0.00	1.00			
14	**Evaluator number of followers***	2.25	1.39	0.00	8.76	-0.09	-0.02	-0.04	0.01	-0.04	-0.05	-0.04	-0.23	-0.06	-0.08	-0.04	-0.06	-0.10	1.00		
15	**Evaluator age**	28.89	8.92	10.00	68.00	-0.06	-0.03	-0.22	0.01	-0.41	-0.10	-0.06	-0.16	-0.04	-0.01	-0.05	-0.01	-0.06	0.09	1.00	
16	**Evaluator gender**	0.28	0.45	0.00	1.00	0.03	-0.03	0.42	0.00	0.06	0.85	0.03	0.01	-0.04	-0.01	-0.03	0.01	-0.07	-0.06	-0.12	1.00

Appendix D. Study 1's supplementary analysis — summary and correlation tables

Note: The variables with an asterisk are logged. The French National Health Agency measured anxiety with a survey using the Hospital Anxiety and Depression (HAD) scale, which is a traditional measure of anxiety (Zigmond & Snaith, 1983). We could access only aggregated data at the levels of regions (12 regions), age (5 brackets) and gender (female and male). Based on our data on the date of ratings and evaluators' city, age and gender, we assign each evaluator-rating dyad a weekly score of anxiety by region, anxiety by age and anxiety by gender. Anxiety scores for ratings made between two waves of the survey are computed through a linear interpolation of anxiety scores from the most proximate waves. Finally, the anxiety variable is the average of anxiety by region, anxiety by age and anxiety by gender (Cronbach's alpha = .67).

DV: Evaluation (movie rating)	E1	E2	E3	E4
Atypicality		-0.04	-0.05	0.23
		(0.032)	(0.033)	(0.163)
Anxiety			0.00	0.01*
			(0.001)	(0.003)
Atypicality x Anxiety				-0.01+
				(0.008)
Movie-level controls				
Average evaluation	0.99***	0.99***	0.99***	0.99***
	(0.007)	(0.007)	(0.007)	(0.007)
Number of evaluations	-0.03***	-0.03***	-0.03***	-0.03***
	(0.004)	(0.004)	(0.004)	(0.004)
Genre Spanning	-0.01	-0.01	-0.01	-0.01
	(0.020)	(0.020)	(0.021)	(0.021)
Length (minutes)	-0.00	-0.00	-0.00	-0.00
	(0.000)	(0.000)	(0.000)	(0.000)
Director experience	0.01	0.01	0.01	0.01
	(0.007)	(0.007)	(0.007)	(0.007)
Distributor experience	0.01*	0.01*	0.01*	0.01*
	(0.004)	(0.004)	(0.004)	(0.004)
Evaluator-level controls				
Evaluator experience	-0.00***	-0.00***	-0.00***	-0.00***
	(0.000)	(0.000)	(0.000)	(0.000)
Evaluator number of followers	-0.10***	-0.10***	-0.09***	-0.09***
	(0.003)	(0.003)	(0.003)	(0.003)
Evaluator age	-0.00***	-0.00***	-0.00***	-0.00***
	(0.000)	(0.000)	(0.000)	(0.000)
Evaluator gender	0.02*	0.02*	0.02+	0.02+
	(0.009)	(0.009)	(0.010)	(0.010)
Fixed effects: release year, quarter, country, main genre	Yes	Yes	Yes	Yes
Constant	0.58***	0.59***	0.55***	0.46***
	(0.055)	(0.055)	(0.062)	(0.082)
Observations	163,696	163,545	159,464	159,464
Adjusted R-squared	0.361	0.361	0.362	0.362

Appendix E. Effects of anxiety during the lockdown period among the French population
Note: OLS regressions. Robust standard deviations clustered at the movie level are in parentheses. Anxiety is the average of the scores of anxiety by region, by age and by gender. *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Appendix F. Vignettes of COVID-19 lockdown announcement (Study 2).

Appendix F.1. Control condition.

Government Announces the Relaxations of the Remaining Restrictions related to COVID-19 Pandemic

In a major success in the fight against COVID-19, the Hong Kong Government has announced the relaxation of the remaining restrictions that aimed at controlling the spread of the virus, starting tomorrow.

The decision was taken after a meeting held earlier today between top government officials and health experts from Hong Kong University (HKU) who have been monitoring the situation closely. The absence of new variant is a significant development and has generated trust in the past efforts to contain the virus.

The government has taken the drastic step of further removing the current restrictions as the situation is now under control. No more restrictions will be imposed in nonessential businesses, schools, and any public spaces, although people have been advised to remain precautious as long as the virus is still circulating.

The authorities commend the efforts that the public have undertaken during these difficult times.

Appendix F.2. Treatment condition.

Government Announces Citywide Lockdown due to Discovery of New Variant of COVID-19

In a major setback in the fight against COVID-19, the Hong Kong Government has announced a citywide lockdown to control the spread of a new variant of the virus, starting tomorrow.

The decision was taken after a meeting held earlier today between top government officials and health experts from Hong Kong University (HKU) who have been monitoring the situation closely. The discovery of this new variant is a significant development and has dealt a severe blow to the efforts to contain the virus.

The government has taken the drastic step of imposing a citywide lockdown to prevent the further spread of the virus and protect the citizens. All nonessential businesses, schools, and public places will remain closed during this time, and people have been advised to stay indoors and go out only if absolutely necessary.

The authorities urge the public to cooperate and follow COVID-19 protocols during this difficult time.

Appendix G. Experimental pilot study.

We ran a pilot study whose objective was to check the validity of Study 1's atypicality variable that was calculated using BTM across our large-scale movie dataset. Furthermore, our goal in the main experimental study (Study 2) was to examine the effect of a variation in participants' affective states on their perception of novelty. Therefore, we needed to select movie synopses that did not generate different affective states to avoid any interference with the subsequent treatment of affect priming in Study 2. To do so, we gathered a sample of online participants to rate their perception of novelty and their affective state after reading the movie synopses. Eventually, this pilot allowed us to preselect unbiased materials to use for our main experiment (Study 2).

We recruited a random sample on Prolific (Peer et al., 2017). To ensure better comparability with Study 1, we recruited French evaluators only. Our final sample comprised 80 individuals who were on average 28.34 years old (SD = 8.71), and 48.75% were female (SD = 0.50). The median duration of the survey was close to 7 minutes (median = 418 sec., SD = 192).

Dependent variables

Perceived novelty

To measure perceived novelty, we asked participants the extent to which they agreed (1 = do not agree at all, 5 = totally agree) that the movie appears "novel", "atypical" and reverse-coded items

"common" and "typical" (items adapted from Blijlevens et al., 2017). Cronbach's alpha is 0.883..[20]

Affective negativity

After reading the description of each movie, participants were asked to assess their current affective states on the I-PANAS-SF (Watson et al., 1988). Cronbach's alpha among the five negative items is 0.61. We calculated affect negativity by summing the scores of the negative affect items.

Independent variables

Atypicality

We preselected a set of twelve real movie synopses extracted from SC. Each evaluator was randomly assigned to a set of three synopses. The three movies had low, moderate and high scores of atypicality. Atypicality ranged from 0.24 to 0.71 (mean=0.46, SD=0.18).[21]

Control variables

[20] Participants were also asked, "Would you be interested in watching this movie?". They were also asked about the extent to which the movie appeared interesting ("interesting", "uninteresting") and clear ("clear", "confused") on items adapted from Silvia and Berg (2011).

[21] We ensured that the synopses were as comparable as possible. The movies were from the same genre (romance), the synopses had comparable lengths (six were short, with an average length of 59 words, SD = 7; six were long, with an average length of 95 words, SD = 10), and they had similar actual ratings on the *SensCritique* platform (mean = 5.7 out of 10, SD = 0.8). To enhance the ecological validity of our material, we used the same visual as the *SensCritique* platform to build the vignette. As on the website, we displayed the names of the director and main actors as well as the genre, duration and release date above the synopsis. To ensure comparability across vignettes, this information was fictional but realistic. Directors' and actors' first names were taken from the list of the most common first names given in the 1990s in the USA, and the last names were among the ones that are currently the most common the USA. All movies were said to be released on the same date and had about the same duration.

As control variables, we used genre appeal (individuals' tastes for romance movies), experience intensity (frequency with which they watched movies), self-assessed knowledge of cinema, age and gender (binary variable taking a value of 1 for female and 0 otherwise). See Appendix C for the detailed measures.

Results

We tested the effects of atypicality conditions (low, moderate, high) on perceived novelty. A repeated-measure ANOVA (including our controls) shows that our model is statistically significant (F=100.02, p<.001). The model is robust when we exclude our controls and when we use short synopses or long synopses. A paired t test shows that all pairwise differences of novelty among atypicality conditions are significant[22]. Higher atypicality levels lead to higher perceptions of novelty, which supports the validity of our atypicality measure from Study 1.

Our objective was also to verify that the three conditions of atypicality did *not* differ significantly in affect negativity scores. We thus ran a repeated-measure ANOVA that indicated that atypicality did not significantly predict differences in affect negativity (F=1.60, p=.201). We ran a post hoc power analysis to estimate the risk of committing a Type II error, i.e., of rejecting the null hypothesis while the effect was likely significant. Our model had a power of .84, which safely excluded the risk of Type II error. These findings indicated that the movie synopses were unlikely to generate different degrees of affect negativity among participants.

Discussion of pilot study

[22] The detailed results are: $novel_{low} = 1.70$, SD = .64, $novel_{mod} = 1.92$, SD = .75, t=-2.41, p<.001; $novel_{low} = 1.69$, SD = .64, $novel_{high} = 3.13$, SD = .99, t=-13.12, p<.001; $novel_{mod} vs. novel_{high}$, t=-9.97, p<.001).

As expected, our atypicality measure based on topic modeling was positively related to perceptions of novelty. Based on this pilot study, we could safely preselect for the next study two synopses that differed significantly in terms of perceived novelty and not in terms of affect negativity.

Appendix H. Vignettes of movie synopses (Study 2).

Appendix H.1. Low-atypicality condition.

French version (original material)
Film de Matthew Johnson . Comédie Romantique . 1 h 36 . 11 avril 2018 (sortie) **Avec** Emily Brown, Tyler Wilson
Femme d'affaires à qui tout réussit, Cass n'est pas heureuse en amour, et vit seule avec son chien. Pour lui venir en aide, sa sœur lui conseille un livre de développement personnel intitulé « Comment rencontrer l'âme sœur? ». Tentant d'en suivre les préceptes, elle fait la connaissance de Robert, qui travaille pour la ville de Denver, et accepte une invitation à dîner de George, l'un de ses clients. Mais très vite, entre le premier, amusant et toujours plein d'énergie, et le second, stable et fiable, elle ne sait plus où donner de la tête.

English version (personal translation)
Movie from Matthew Johnson . Romantic Comedy . 1 h 36 . April 11th, 2018 (release) With Emily Brown, Tyler Wilson
As a successful businesswoman, Cass is not lucky in love, and she lives alone with her dog. To help her, her sister recommends her a personal development book titled “How to meet your soul mate”. In an attempt to follow its precept, she meets Robert, who works for the city of Denver, and she accepts an invitation to dinner from George, one of her clients. But soon, when choosing between the first, who is funny and always full of energy, and the second, stable and trustworthy, she doesn’t know what to do.

Appendix H.2. High-atypicality condition.

French version (original material)
Film de Christopher Williams . Comédie Romantique . 1 h 36 . 11 avril 2018 (sortie) Avec Ashley Davis, Daniel Miller
Lucy, une jeune femme rêveuse, travaille dans le métro de Chicago. Tous les matins, elle voit passer devant son guichet Peter Callaghan, un avocat qu'elle prend pour le prince charmant et qui ne la remarque jamais. Un jour, il se fait agresser et jeter sur les voies. Lucy lui sauve la vie. Elle se rend à son chevet à l'hôpital alors qu'il est dans le coma, mais les parents de Peter, qui la trouvent là, la prennent pour sa fiancée. A mesure que la famille Callaghan s'attache à elle, Lucy tombe amoureuse de Jack...le frère de Peter.

English version (personal translation)
Movie from Christopher Williams . Romantic Comedy . 1 h 36 . April 11th, 2018 (release) With Ashley Davis, Daniel Miller
Lucy, a young daydreaming woman, works in the Chicago subway. Every morning, she sees walking in front of the counter Peter Callaghan, a lawyer who looks like a prince charming and never notices her. One day, he gets attacked and thrown on the subway tracks. Lucy saves his life. She goes to his bedside at the hospital while he is in a coma, but Peter’s parents, who find her there, think that she is his fiancée. As the Callaghan family become attached to her, Lucy falls in love with Jack… Peter’s brother.

Appendix I. Control variables of experimental studies (pilot study and Study 2).

In our experimental studies, we measured a series of variables that we used as controls. *Genre appeal* was measured by asking participants, "In general, to what extent do you like romance movies?". *Experience intensity in cinema* was measured by asking, "On average, how often do you watch movies?" (Silvia & Berg, 2011). *Knowledge of cinema* was measured by using an 8-item questionnaire on important figures and concepts in cinema. Our items were the following: auteur theory, cinéma-vérité, Rashomon, Errol Morris, nonlinear editing, Hays Code, Star system, and clair-obscur[23]. We asked participants to rate their level of knowledge for each of the items on a 5-point scale. Finally, the other controls included participants' *age* and *gender*.

	Perceived Novelty	**Evaluation**	**Perceived Novelty**	**Evaluation**
Controls included	**Yes**		**No**	
Atypicality	b=.513 (p<.001)	b=-.006 (p=.951)	b=.537 (p<.001)	b=.018 (p=.883)
Perceived Novelty		b=.562 (p<.001)		b=.714 (p<.001)
Indirect effect of Perceived Novelty		b=.288 CI=[.160,.436]		b=.383 CI=[.221,.565]
F	7.312	50.548	27.361	43.337
R2	.424	.587	.129	.316
N	193	193	193	193

Appendix J. Mediation effects (Study 2).

Note: Linear regression effects with heteroscedasticity-robust standard errors (Huber-White) and 10,000 bootstrap samples. The control variables are genre appeal, experience intensity in cinema, knowledge of cinema, age and female gender.

[23] We took the items that had the highest item-total correlation in Silvia and Berg (2011) and we replaced "*mise-en-scène*" by "clair-obscur" to make it more relevant for French participants.

	Perceived Novelty	Evaluation	Perceived Novelty	Evaluation
Controls included	**Yes**		**No**	
Atypicality	b=.469 (p<.001)	b=-.016 (p=.875)	b=.672 (p<.001)	b=.018 (p=.883)
Perceived Novelty		b=.513 (p<.001)		b=.714 (p<.001)
Anxiety treatment		b=.244 (p=.092)		b=.342 (p=.100)
Anxiety x Atypicality		b=.190 (p=.166)		b=.098 (p=.593)
Anxiety x Perceived Novelty		b=-.214 (p=.008)		b=-.212 (p=.063)
Index of Moderated Mediation of Anxiety		b=-.138 CI=[-.259, -.033]		b=-.142 CI=[-.314, .013]
F	20.643	70.174	81.062	28.676
R2	.220	.601	.168	.261
N	400	400	400	400

Appendix K. Moderated mediation effects (Study 2).

Note: Linear regression effects with heteroscedasticity-robust standard errors (Huber-White) and 10,000 bootstrap samples. The control variables are genre appeal, experience intensity in cinema, knowledge of cinema, age and female gender.