

Psychological Effects of Communicating Temporal Best Prices

Ruud Lathouwers^{1*}, Christoph Kogler¹ and Marcel Zeelenberg^{1, 2}

Abstract

When products or services are on discount, it is not always clear to consumers for what price these were sold before. To protect consumers, the European Union's Omnibus Directive called for more transparency in discounts. In reaction to this, some companies started communicating what we call Temporal Best Prices (TBPs). TBPs indicate what the lowest price was in the last 30 days before the current discounted price. We manipulated whether the TBP was absent (control condition), lower than, equal to, or higher than the current discount for two products. When participants missed out on a better deal (TBPs were lower than the current discount), willingness to buy and perceptions of fairness were lower. Contrary to our expectations, when participants got a particularly good deal the willingness to buy and perceptions of fairness were unaffected. Perceptions of transparency were not affected by the manipulation of TBPs. In conclusion, historical price information in the form of TBPs seems to asymmetrically affect purchase intentions and fairness perceptions.

JEL Classification: C91, D18, D91, M30

Keywords

consumer attitudes and behavior — temporal best price — willingness to buy — transparency — fairness

¹ Department of Social Psychology, and Tilburg Institute for Behavioral Economics Research (TIBER), Tilburg University

² Department of Marketing, Vrije Universiteit Amsterdam

*Corresponding author: r.lathouwers@tilburguniversity.edu

Introduction

Discounts, products or services offered for temporarily lowered prices, are an effective way to persuade consumers to buy them, to buy them earlier than they need (“forward buying”), or to buy more of them (“stockpiling”). Discounts are used frequently, and sometimes also in not-so-transparent ways. For example, a retailer may discount a hoodie for £29.99, instead of the regular £49.99. What the consumer might not know, is that the hoodie was discounted even more last week, for only £19.99. As a result, it is often difficult for consumers to see how advantageous a discount really is. One could argue that price transparency is important for consumers, but such transparency might not be beneficial for companies offering the discounts. Consumers dislike having missed better deals earlier on, and this is a reason for them to not act on a current one (for a review, see Van Putten et al., 2013a), resulting in companies selling less.

Apparently, policymakers are aware of this issue and the European Union (EU) has taken steps to protect consumers by increasing price transparency. They did so via Article 2 Paragraph 1 of the Omnibus Directive (EU Directive 2019/2161; amended EU Directive 98/6/EC by inserting a new article 6a). Article 2 stipulates that discounts must indicate the prior price on which the discount is based. The prior price is the lowest price charged at least 30 days before the current discount. In reaction to the Omnibus Directive, some companies within

the EU started communicating so-called Temporal Best Prices (TBPs) to their customers. TBPs indicate what the lowest price was in the 30-day window before the current discounted price. These TBPs are added on the price tag next to the regular and discounted price, for example to the price of the discounted hoodie in our example, it might say: “best price in the past 30 days (£19.99)”. The current study seeks to investigate the effects this has on consumers' purchase intentions, transparency and fairness perceptions.

Assuming that communicating TBPs becomes mandatory, TBPs could eliminate the practice of “fake discounts” (suggesting that a product is on discount, while it is actually sold for a similar price as before, a common practice, for example, on Black Friday). If TBPs become mandatory consumers can be sure not only about the selling prices, but also about the communicated prior price (“regular price”). This should make consumers feel more confident when evaluating discounts. Moreover, TBPs are akin to historical price information, which is displayed on price-tracking websites. These websites receive approximately 4 - 5 million visitors per month on average (Similarweb, n.d.-a, n.d.-b), clearly indicating that consumers are interested in this type of information.

Literature Review

It is as yet unclear whether this policy intervention of TBPs has an effect on the behavior of consumers. Could it impact

their willingness to act on the discount? Might it affect their perceptions of the fairness and transparency of the indicated (advertised) discount? The current research examines this. The specific study was inspired by research on the inaction inertia effect (e.g., Tykocinski et al., 1995; Van Putten et al., 2013a,b) and by the effects of historical price information on purchase deferral (e.g., Gunadi & Evangelidis, 2022).

Inaction Inertia

Inaction inertia refers to the phenomenon where consumers who initially did not act on a favorable opportunity (inaction) are less inclined to make use of a later favorable opportunity (inertia) (Tykocinski et al., 1995). This effect has been observed in a wide range of situations (cf. Van Putten et al., 2013a; Chen et al., 2021), such as stock market trading (Tykocinski et al., 2004), business take-over decisions (Butler & Highhouse, 2000; Lu et al., 2016), and retirement saving (Krijnen et al., 2019), but has mostly been studied in consumer contexts (Liu & Chou, 2018; Van Putten et al., 2013b). People do not act on a second opportunity, presumably because in light of the missed opportunity, the second opportunity is valued less (Zeelenberg et al., 2006). Irrespective of the specific cause, we believe that the communication of TBPs may induce an inaction inertia effect in consumers when the TBP was lower than the current price, indicating that the consumer failed to act on an earlier better price. Hence, we predict that when the TBP is lower than the current discounted price consumers will be less willing to buy the product (as compared to the situations in which the TBPs are higher or equal to the current discounted price or not communicated). We provide a list of all hypotheses before describing the study in more detail.

Historical Price Information

The research on inaction inertia does not make a prediction about what happens when the current discount is better than the TBP. At face value, one could predict that consumers should be more willing to buy a product when the current price is better than the previously missed prices. This is consistent with Gunadi and Evangelidis (2022), who predicted and found that multiple price decreases will result in less purchase deferral compared to multiple price increases. These authors reasoned that for single price changes, consumers expect a balancing to occur (e.g., when a price goes down, it will later go up again, and the reverse), But for repeated increases or decreases, when consumers observe a pattern, they will expect future prices to follow the pattern (e.g., when a price goes down repeatedly, it is likely to continue to go down; the same applies to when a price repeatedly goes up). Similarly, Tsiros and Hardesty (2010) investigated the practice of steadily decreasing discounts which are discounts that become smaller in steps (i.e., from a £30,- discount to no discount by weekly steps of £10,-). They found that this result increased purchasing behavior, revenue, and profit in contrast to high-low discount strategies, which offer either no, or a large discount.

On the basis of the above, we propose that when the TBP is higher than the current price, consumers are presented with multiple consecutive price decreases (i.e., regular price is larger than TBP is larger than current price), which we expect to result in less deferral and a higher willingness to buy the product. Therefore, we predict that when the TBP is higher than the currently discounted price, consumers will be more likely to buy the product (relative to the situation when the TBP is lower or equal to the current discounted price or not given).

Temporal Best Prices and Perceptions of Transparency and Fairness

As indicated earlier, the purpose of the EU's Omnibus Directive is to protect consumers by increasing price transparency. We believe that it will not only affect the consumers' decisions, but also their perceptions of the deal. Communicating TBPs will make it clear to consumers how honest or sincere the companies are with their discounts. As such, it will be easier for consumer to evaluate how good the deal actually is, in comparison to earlier deals, and therefore we expect that it will be associated with increased perceptions of transparency and fairness. We assume this because transparency has been associated with positive effects for organizations such as increased perceived fairness (Miao & Mattila, 2007) and purchase intentions (Hanna et al., 2019). Miao and Mattila (2007) conceptualized information pricing transparency as "a function of the degree of information sufficiency and the degree of information diagnosticity" (p. 532). Information sufficiency concerns consumers' confidence to make judgments, whereas information diagnosticity relates to the usefulness of the information to make evaluations. Thus, we predict that consumers will perceive retailers to be more transparent when TBPs are communicated (relative to when these are not communicated).

Consumers also care about fairness (Kahneman et al., 1986), and studies indicate that price unfairness has negative consequences for sellers (e.g., Campbell, 1999), including decreased purchase intentions. Xia et al. (2004) indicate that fairness revolves around comparability, with social comparisons playing a major role. When a price is equal to some standard of comparison, such as similar others (Ordóñez et al., 2000), it is considered to be fair. As this difference increases, perceptions of fairness will decrease.

Effectively, this constitutes an application of equity theory (Adams, 1965) and distributive justice theory (Xia et al., 2004). Consumers dislike discrepancies between their situation, and those of others, the price they and others paid. When TBPs are lower or higher than the current discount, there is such inequity between those who bought a product a month ago and those who are buying it now. In that case, the current discount should be considered less fair than in situations when no TBP is given or when the TBP is equal to the current price. Note that this prediction differs from the prediction for transparency. Whereas transparency concerns the utility of information added by TBPs, fairness concerns similarity in

prices paid by people at different time points. On the basis of this reasoning we predict that consumers will evaluate the retailer as fairer when no TBP is communicated or when it is equal to the current discounted price.

Hypotheses

In the research described hereafter, we examined the effect of communicating TBPs on consumers' perceptions and decisions. Our aim was to present the TBPs similar to how consumers would find them when shopping online. Participants saw advertisements for two products, a hoodie and a T-shirt, in random order and were then asked to indicate their willingness to buy the product, and transparency and fairness perceptions of the current discount. The TBP was either not given, lower than, equal to, or higher than the current discount. This study was designed to test the following four hypotheses, based on the reasoning described above:

H1: When the temporal best price is lower than the current discounted price consumers will be less willing to buy the product (relative to the situations when the temporal best price is equal or higher to the current discounted price or not communicated).

H2: When the temporal best price is higher than the current discounted price consumers will be more likely to buy the product (relative to the situation when the temporal best price is equal, lower to the current discounted price or not given).

H3: Consumers will perceive the retailer to be more transparent when temporal best prices are communicated (relative to when no temporal best price is communicated).

H4: Consumers will evaluate the retailer as fairer when no temporal best price is communicated or when the temporal best price is equal to the current discounted price (relative to when the communicated temporal best price is lower or higher than the current discounted price).

Methods

This study was preregistered via the Open Science Foundation: OSF. We report how we determined our sample size, all data exclusions, all manipulations, and all measures. The materials, data, and code are openly available in: [Researchbox](#)

Participants

G*Power 3.1.9.7 indicated that we would require 424 participants to detect a small to medium effect ($f = 0.175$; based on Chen et al., 2021) with 80% power for an alpha of .025 (accounts for two planned comparisons related to the main analysis – H1/H2), and four groups for a one-way between-subjects ANOVA. Accounting for possible exclusions (none

were needed), and drop-outs we planned to oversample up to 440. We obtained a sample of 447 participants (63.5% female, 35.1% male, $M_{age} = 39.76$, $SD = 9.55$, Range = 18-80). Participants were recruited on Prolific Academic in April of 2023 for a 3-minute study for £0.50 compensation. We recruited UK participants and all prices were in British pounds.

Design and Procedure

Participants evaluated via an online questionnaire, two discounted products in a random order: a hoodie and a T-shirt, see [Figure 1](#) for an example and [Figure 2](#) for an overview of all conditions. For both products, participants were randomly assigned to one of the conditions of a four group design (Temporal Best Price: No, Lower, Equal, Higher), with the No Temporal Best Price condition as control condition (mimicking the standard situation where one does not have information about previous prices). In all four conditions, the regular price for the hoodie was £49.99 and the discounted price was £29.99 (the T-shirt was on discount from £24.99 for £14.99). The TBP was either not given, lower (£19.99), equal (£29.99) or higher (£39.99) than the price for which the product is currently on discount. In the T-shirt conditions the TBPs were absent, £9.99, £14.99, and £19.99 (see also [Table 1](#)). Thus, all TBPs were lower than the regular price. The no TBP condition was added as a control condition to see if TBP add something over the more common non-TBP situation.

After seeing the product, participants were asked questions about their willingness to buy (“how likely are you to buy the T-shirt (hoodie)?”, 0 = Not likely at all; 10 = Extremely likely, cf. Tykocinski et al., 1995) and about transparency and fairness (“The current discount is transparent.” and “The current discount is fair.” 1 = Strongly disagree; 7 = Strongly Agree). The same procedure followed for the second product. The item measuring willingness to buy was taken from Tykocinski et al. (1995). The items measuring transparency and fairness were specifically designed for the current study. After having evaluated both products, participants were asked the following open question: “You were shown two discounted products. What, if anything, did you compare the discount(s) against?” Finally, they were asked for their gender and age.

Results

[Table 1](#) shows the means and standard deviations for the willingness to buy the discounted product, and for the perceptions of transparency and fairness of the discount for all four conditions (Temporal Best Price: No, Lower, Equal, Higher) for both the hoodie and the T-shirt. To test the hypotheses, separate ANOVAs were conducted for each DV with planned comparisons. Multiple preregistered secondary analyses were conducted. Specifically, we applied Tukey HSD tests following all previously indicated ANOVAs. [Table 1](#) also shows the results of these ANOVAs, and the planned comparisons are reported below. Furthermore, correlations between the

Please imagine the following:

You want to buy a new hoodie and are searching for one online. You find the following discounted hoodie (please see the picture below and answer the questions underneath).



Figure 1. Screenshot from one of the Experimental Conditions (Temporal Best Price = Lower)

dependent variables were calculated, the answers to the open questions were explored, and responses were explored on an individual level. Finally, we report as robustness checks, separate ANCOVAs, replicating the ANOVAs but now with gender and age as covariates.

Willingness to Buy

The first hypothesis entailed that participants would be less likely to buy a hoodie or a T-shirt when the TBP was lower than the current price. The ANOVAs on the willingness to buy ratings were significant for both the hoodie and T-shirt (see Table 1) and the contrast supports Hypothesis 1 ($F_{Hoodie} (1, 333) = 41.91, p < .001, \eta^2 = 0.09$; $F_{T-shirt} (1, 332) = 27.31, p < .001, \eta^2 = 0.06$; contrast: Lower TBP vs Control & Equal).

The second hypothesis was that participants would be more likely to buy a hoodie or a T-shirt when the TBP was higher than the current price. The contrast does not support Hypothesis 2, although the difference was in the expected direction ($F_{Hoodie} (1, 332) = 2.37, p = .125, \eta^2 < 0.01$; $F_{T-shirt} (1, 334) = 0.54, p = .463, \eta^2 < 0.01$; contrast: Higher TBP vs Control & Equal). The follow-up Tukey HSD tests revealed that for each product, the lower TBP condition, but not the higher TBP condition, was significantly different from the no and equal TBP conditions ($p_s < .001$). Therefore, only Hypothesis 1 was supported.

Transparency

Next, we turn to the results for the evaluations of transparency. The third hypothesis was that participants would perceive the discount to be more transparent in the conditions presenting

a TBP (Lower, Equal, and Higher). The ANOVA on transparency was significant for the Hoodie scenario, but not for the T-shirt scenario (See Table 1). Transparency was not significantly higher in the TBPs conditions for either the hoodie or the T-shirt condition ($F_{Hoodie} (1, 443) = 0.43, p = .511, \eta^2 < 0.01$; $F_{T-shirt} (1, 443) = 0.26, p = .608, \eta^2 < 0.01$; contrast: Lower, Equal & Higher TBP vs Control). The results therefore did not support Hypothesis 3. The follow-up Tukey HSD test for the hoodie revealed a significant difference between the lower and higher TBP conditions ($p = .013$), all other comparisons were not significant.

Fairness

Finally, we analyzed the fairness evaluations. The fourth hypothesis was that participants would consider the discount fairer when the TBP was either not given or the same as the current discount. Both ANOVAs were significant (see Table 1). For both the hoodie and the T-shirt, the planned contrast was significant ($F_{Hoodie} (1, 443) = 22.02, p < .001, \eta^2 = 0.05$; $F_{T-shirt} (1, 443) = 21.64, p < .001, \eta^2 = 0.05$; contrast: Control & Equal TBP vs Higher & Lower TBP). However, the follow-up Tukey HSD tests revealed that the lower TBP condition was significantly different from the other conditions for both products (in all cases, $p < .001$), but this was not the case for the higher TBP condition, although the results were in the expected direction (i.e., for both products the Higher condition had the highest average fairness score). Hypothesis 4 therefore received initial support but was rejected after follow-up analysis.

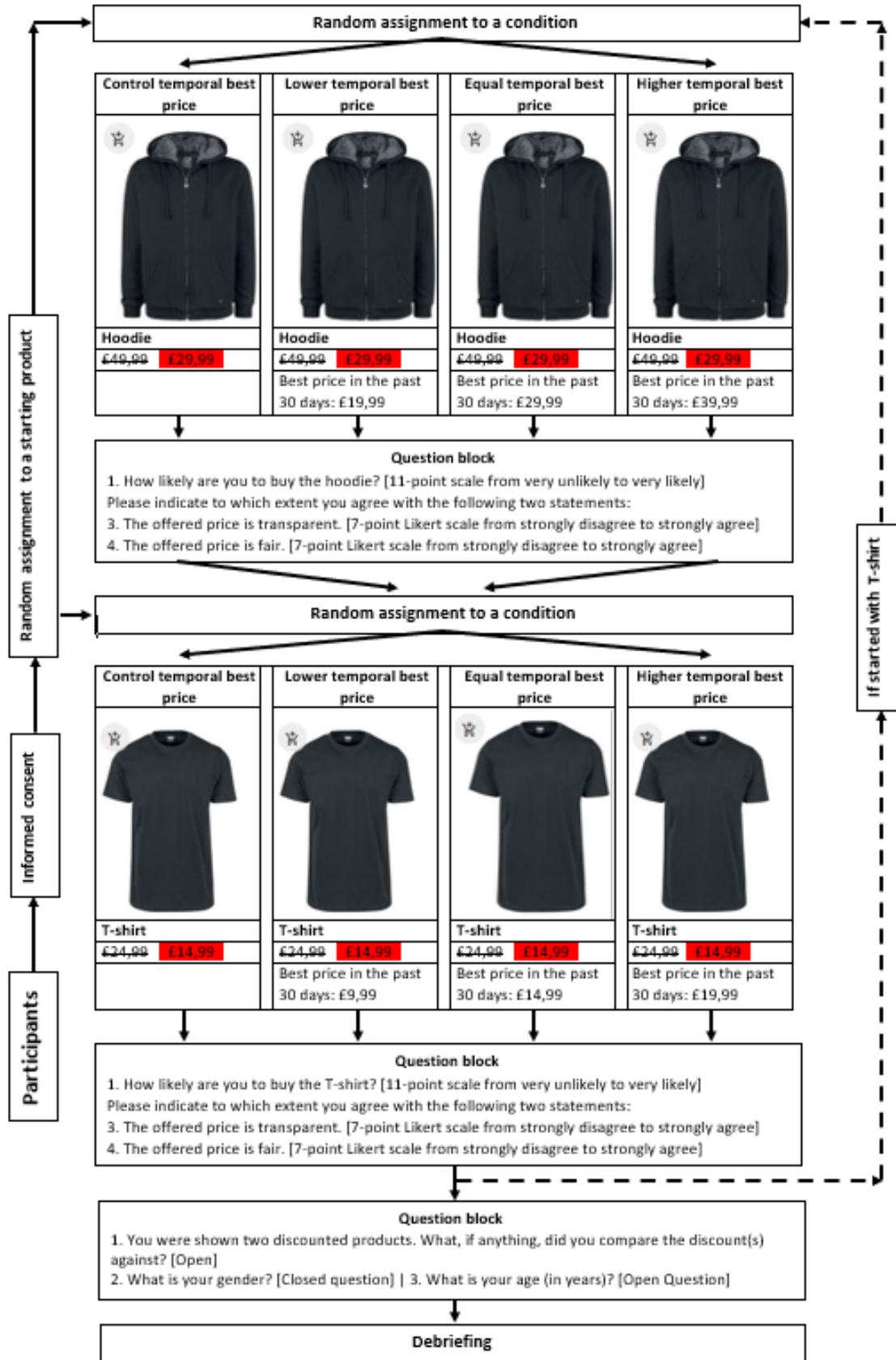


Figure 2. Overview of the Experimental Conditions and Procedure

Table 1. Willingness to Buy the Discounted Product, and Perceptions of Transparency and Fairness of the Discount for all Four Conditions ($N = 447$)

Scenario	Temporal Best Prices (TBP) Conditions								$F(3,443)$	p	η^2
	Control		Lower		Equal		Higher				
	M	SD	M	SD	M	SD	M	SD			
<i>Hoodie (from £49.99 for £29.99)</i>											
	TBP absent		TBP = £19.99		TBP = £29.99		TBP = £39.99				
Willingness to buy	6.14a	2.45	4.17b	2.46	5.90a	2.70	6.47a	2.27	19.29	<.001	0.12
Transparency	5.56a, b	1.41	5.13a	1.47	5.57a, b	1.36	5.68b	1.12	3.60	.014	0.02
Fairness	5.65a	1.08	4.29b	1.40	5.43a	1.13	5.77a	0.98	38.06	<.001	0.20
<i>T-Shirt (from £24.99 for £14.99)</i>											
	TBP absent		TBP = £9.99		TBP = £14.99		TBP = £19.99				
Willingness to buy	5.46a	2.77	3.87b	2.36	5.50a	2.54	5.71a	2.85	11.44	<.001	0.07
Transparency	5.41a	1.33	5.47a	1.19	5.32a	1.23	5.65a	1.24	1.43	.233	<0.01
Fairness	5.22a	1.31	3.85b	1.57	5.27a	1.18	5.46a	1.20	34.63	<.001	0.19

Note: Willingness to buy was assessed on an 11-point scale (0 = Not likely all; 10 Extremely likely). Transparency and fairness were assessed on 7-point Likert-scales (1 = Strongly disagree; 7 = Strongly Agree). Means within a row with different superscripts differ significantly at $p < .05$.

Robustness Checks

We explored the robustness of these results by repeating the previous analyses, and adding age and gender as covariates in two separate ANCOVAs. The effects of the TBP conditions remained the same, also after controlling for age and gender (WTB: $F_{Hoodie}(3, 440) = 19.19, p < .001$, partial $\eta^2 = 0.116$; $F_{T-shirt}(3, 440) = 10.96, p < .001$, partial $\eta^2 = 0.070$; Transparency: $F_{Hoodie}(3, 440) = 3.52, p < .015$, partial $\eta^2 = 0.023$; $F_{T-shirt}(3, 440) = 1.42, p = .236$, partial $\eta^2 = 0.010$; Fairness: $F_{Hoodie}(3, 440) = 39.32, p < .001$, partial $\eta^2 = 0.211$; $F_{T-shirt}(3, 440) = 33.50, p < .001$, partial $\eta^2 = .186$). Gender was never a significant covariate ($p_s > .05$) in any of the analyses. Age was positively related to hoodie WTB ($p = .005$) and T-shirt transparency ($p = .011$), but negatively related to T-shirt fairness ($p = .008$), in the other cases $p > .05$. Post-hoc analyses further confirmed our earlier conclusions, supporting Hypothesis 1 but not Hypotheses 2, 3, and 4.

Discussion

The European Union, via the Omnibus Directive, called for transparency about prices, and urged companies to publish the lowest price from the last 30 days, what we have termed: Temporal Best Prices (TBP). In this article, we report an experiment that investigated the effects of communicating such temporal best prices to consumers. We manipulated the TBP to be either not given (which is the current standard), lower than, equal to, or higher than the current price. The TBP, in addition to the regular and current price, indicated the lowest price for which the product was sold in a certain period of time (e.g., 30 days) before the current discount. In this well-powered and pre-registered study, we investigated the effects of the addition of this temporal best price on consumers' behavior and perceptions. Our results reveal that when a favorable opportunity is missed (i.e., the TBP is lower than the current price), consumers are less willing to buy the product and consider the discount less fair. In contrast, when there is a favorable opportunity now (i.e., the TBP is higher than

Table 2. Means, Standard Deviations, and Correlations for the DVs in both Scenarios ($N = 447$)

Scenario	M	SD	1	2
<i>Hoodie</i>				
1. Willingness to buy	5.67	2.62	-	
2. Transparency	5.49	1.36	.247**	-
3. Fairness	5.28	1.29	.433**	.524**
<i>T-shirt</i>				
1. Willingness to buy	5.14	2.73	-	
2. Transparency	5.46	1.25	.153*	-
3. Fairness	4.96	1.47	.451**	.406**

Note. Willingness to buy was assessed on an 11-point scale (0 = Not likely all; 10 Extremely likely). Transparency and fairness were assessed on 7-point Likert-scales (1 = Strongly disagree; 7 = Strongly Agree). * $p < .01$, ** $p < .001$.

the current price), consumers are not more (or less) willing to buy the product or consider the discount more or less fair. No differences in perceived transparency were found.

Our study, therefore, replicates the inaction inertia effect (Tykocinski et al., 1995), which is the general finding that not making use of a favorable opportunity decreases the likelihood of making use of a favorable opportunity in the future. Of course, the current study was not set up to examine the psychological processes underlying this reluctance to act on a discount when the TBP was lower. The inaction inertia literature suggests that this might happen because in light of lower TBP, the current discount is valued less. However, the current finding may be an effect that is associated with perceptions of unfairness. Given the correlations between fairness and willingness to buy (see Table 2), there is some support for this claim. Further research could test whether such a causal relationship exists.

In addition to this, and perhaps more interestingly, consumers' willingness to buy and fairness perceptions were not different from the condition in which no TBP was given (con-

trol condition) when the TBP was higher than the current discount. Based on Gunandi and Evangelidis (2022), we expected consumers to show a higher willingness to buy but noted in the introduction that based on Tsiros and Hardesty (2010) consumers may show a lower willingness to buy. In both cases, there is a difference with respect to the control condition. Our null finding, which occurred despite having sufficient power ($>.80$), further complicates the situation, as it adds evidence for yet another substantive conclusion, that a higher temporal best price does not influence WTB. In our study, we did not include factors that may explain this, such as future price expectations, or the perceived value of the product. Hence, we could not identify to which (cognitive) processes this null finding may be related. We ultimately do not know for sure whether a higher TBP influences the perceived value of the product or changes the price expectations. Future research should investigate this further.

With respect to fairness, it appears that it is might not be driven predominantly by social comparison processes. Consumers consider discounts unfair when they themselves missed out on a good opportunity, but not when others did. It is, however, in line with research by Xia et al., (2004), who found that disadvantages to oneself (such as missing out on a favorable opportunity) are considered less fair than disadvantages to others. Our results support this position as fairness decreased when participants themselves missed out on a favorable opportunity, but not when they received a favorable opportunity and others who bought the product earlier, therefore, missed out on a favorable opportunity. One explanation of our findings may be that the disadvantage to others is not salient, as it requires thinking about the temporal implications of receiving a favorable opportunity.

With respect to transparency, no substantive differences were found. It is unclear why. One explanation may be that we expected the popularity of price-tracking websites, which as noted have approximately 4 - 5 million visitors per month on average (Similarweb, n.d.-a, n.d.-b), to be indicative of people caring about historical price information. Although the absolute number of visitors itself is high, relative to the entire number of visitors to web shops, it may well be considered a rather small amount. Thus, consumers may actually not care for historical price information as much as assumed.

The current study, of course, had some limitations that might spur further research. One such limitation is that we did not consider individual differences in sensitivity to fairness. Some people might respond stronger to fairness violations than others, and future studies may want to examine how such individual differences may affect reactions to missed discounts. Another limitation is that the current research relied uniquely on questionnaire data including self-reported purchase intentions. This limitation applies more broadly to studies of inaction inertia and the effects of historical price information, and even though the current study documents effects of TBPs on consumers' judgments, it seriously impedes the conclusions concerning the actual behavioral impact of

TBPs. Future research is advised to go beyond behavioral intentions. A final limitation of the current work is the restricted sample of only UK residents. Research on the effects of missed discounts tends to be robust and replicable (Van Putten et al., 2013a; Chen et al., 2021), but has mostly (but not uniquely) been tested with WEIRD (Western, Educated, Industrialized, Rich and Democratic) participants (Henrich et al., 2010). Hence, a logical next step would be to extend this research to non-WEIRD countries, if only to confirm the wide applicability of these findings, or to find interesting cross-cultural differences.

Our main contribution, however, was testing the potential effects of the Omnibus Directive on WTB, transparency, and fairness. It appears that the Omnibus Directive does what it was supposed to do. Presenting fake discounts will be more difficult. Moreover, consumers' fairness and transparency perceptions remain above the scales' midpoints, which indicates that adding TBPs at least does not make consumers consider the prices as untransparent or unfair. However, as noted, TBP did not increase transparency or fairness either. Furthermore, Zeelenberg and Van Putten (2005) indicate that besides lower purchase intentions, inaction inertia also leads consumers to switch to other brands. Hence, adding TBPs may lead consumers to change their purchasing behavior to some extent.

References

- 2019/2161. (2019). Omnibus directive.
- Adams, J. S. (1965). Inequity in social exchange. *Advances in Experimental Social Psychology* 2, 267–299.
- Butler, A. and S. Highhouse (2000). Deciding to sell: The effect of prior inaction and offer source. *Journal of Economic Psychology* 21(3), 223–232.
- Campbell, M. C. (1999). Perceptions of price unfairness: antecedents and consequences. *Journal of Marketing Research* 36(2), 187–199.
- Chen, J., L. S. Hui, T. Yu, G. Feldman, S. Zeng, T. L. Ching, C. H. Ng, K. W. Wu, C. M. Yuen, T. K. Lau, et al. (2021). Foregone opportunities and choosing not to act: Replications of inaction inertia effect. *Social Psychological and Personality Science* 12(3), 333–345.
- Gunadi, M. P. and I. Evangelidis (2022). The impact of historical price information on purchase deferral. *Journal of Marketing Research* 59(3), 623–640.
- Hanna, R. C., K. N. Lemon, and G. E. Smith (2019). Is transparency a good thing? how online price transparency and variability can benefit firms and influence consumer decision making. *Business Horizons* 62(2), 227–236.
- Henrich, J., S. J. Heine, and A. Norenzayan (2010). The weirdest people in the world? *Behavioral and Brain Sciences* 33(2-3), 61–83.

- Kahneman, D., J. L. Knetsch, and R. H. Thaler (1986). Fairness and the assumptions of economics. *Journal of Business*, S285–S300.
- Krijnen, J. M., M. Zeelenberg, S. M. Breugelmans, and M. van Putten (2020). Inaction inertia in retirement saving. *Journal of Behavioral Decision Making* 33(1), 52–62.
- Liu, H.-H. and H.-Y. Chou (2018). Promotional formats and inaction inertia. *Journal of Economic Psychology* 66, 22–32.
- Lu, J., H. Jia, X. Xie, and Q. Wang (2016). Missing the best opportunity; who can seize the next one? agents show less inaction inertia than personal decision makers. *Journal of Economic Psychology* 54, 100–112.
- Miao, L. and A. S. Mattila (2007). How and how much to reveal? the effects of price transparency on consumers' price perceptions. *Journal of Hospitality & Tourism Research* 31(4), 530–545.
- Ordóñez, L. D., T. Connolly, and R. Coughlan (2000). Multiple reference points in satisfaction and fairness assessment. *Journal of Behavioral Decision Making* 13(3), 329–344.
- Similarweb (n.d.-a). Camelcamelcamel.com.
- Similarweb (n.d.-b). Keepa.com.
- Tsiros, M. and D. M. Hardesty (2010). Ending a price promotion: retracting it in one step or phasing it out gradually. *Journal of Marketing* 74(1), 49–64.
- Tykocinski, O., R. Israel, and T. S. Pittman (2004). Inaction inertia in the stock market 1. *Journal of Applied Social Psychology* 34(6), 1166–1175.
- Tykocinski, O. E., T. S. Pittman, and E. E. Tuttle (1995). Inaction inertia: Foregoing future benefits as a result of an initial failure to act. *Journal of Personality and Social Psychology* 68(5), 793–803.
- Van Putten, M., M. Zeelenberg, and E. Van Dijk (2008). Multiple options in the past and the present: The impact on inaction inertia. *Journal of Behavioral Decision Making* 21(5), 519–531.
- van Putten, M., M. Zeelenberg, and E. van Dijk (2013). How consumers deal with missed discounts: Transaction decoupling, action orientation and inaction inertia. *Journal of Economic Psychology* 38, 104–110.
- Van Putten, M., M. Zeelenberg, E. van Dijk, and O. E. Tykocinski (2017). Inaction inertia. *European Review of Social Psychology* 24, 123–159.
- Xia, L., K. B. Monroe, and J. L. Cox (2004). The price is unfair! a conceptual framework of price fairness perceptions. *Journal of Marketing* 68(4), 1–15.
- Zeelenberg, M., B. A. Nijstad, M. van Putten, and E. Van Dijk (2006). Inaction inertia, regret, and valuation: A closer look. *Organizational Behavior and Human Decision Processes* 101(1), 89–104.
- Zeelenberg, M. and M. v. Putten (2005). The dark side of discounts: An inaction inertia perspective on the post-promotion dip. *Psychology & Marketing* 22(8), 611–622.