

# When Normative Information Becomes a Challenge: The Role of Resistance to Change and Imminence in Consumer Compliance with Dynamic Norms

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# **When Normative Information Becomes a Challenge: The Role of Resistance to Change and Imminence in Consumer Compliance with Dynamic Norms**

## **Abstract:**

State-of-the-art consumer research has highlighted the potential of a novel behavioral intervention strategy - dynamic social norms in changing undesirable behaviors. However, contradicting studies have begun to emerge, necessitating a deeper understanding of the processes through which dynamic norms affect behavior. Through three experiments we demonstrate that dynamic (vs. static) norms increase health-related behavioral intentions; this happens because dynamic (vs. static) norms evoke higher imminence perceptions. This effect is particularly pronounced for consumers high on resistance to change, who perceive dynamic (vs. static) norms as more imminent. Conversely, for consumers who are low on resistance to change, dynamic (vs. static) norms reduce health-related behaviors due to diminished imminence. Our study extends consumer research on social influences and offers valuable insights for both researchers and practitioners striving to promote counter-normative consumer choices.

*Keywords: social influences, resistance to change, behavioral change.*

*Track: Consumer Behavior*

## **1. Introduction of Paper**

Globally, 22% of all deaths among adults were caused by dietary risks (Afshin et al., 2019). As consumer resistance to making changes in diet remains high (Jebb, 2018), there is a growing scientific interest in more effective health-related interventions guiding consumers to make healthier eating choices (World Health Organization, 2019). An expanding literature in consumer research spotlights normative information about ongoing change - dynamic norms - as a highly effective intervention strategy in promoting behavioral change (Cialdini & Jacobson, 2021). Yet, new studies emerge showing that dynamic norms can produce mixed effects: sometimes prompting positive behaviors, but sometimes encouraging negative consumer responses (Aldoh, Sparks, & Harris, 2021, Geber et al., 2022). The main question of this research is to analyse whether, why, and under what conditions dynamic norms might lead to positive health-related behavioral outcomes for resistant consumers.

We aim to expand the current consumer research on social normative influence by understanding the mechanisms through which dynamic norms affect consumer compliance. To date, these effects remain understudied, and investigating them may elucidate when and why dynamic norms might have positive or negative effects on behavioral change (Bicherri & Diman, 2019). In this research, we introduce and empirically test the effects of novel mediator imminence, which explains the process behind consumer compliance to dynamic (vs. static) norms. Thus, we analyze the boundary conditions of the proposed effect by testing the moderation effects of a personal trait closely related to consumer reaction to change – consumer resistance to change (Oreg, 2003). To our knowledge, this is the first study to analyse these unique contributors to dynamic norm effects.

## **2. Dynamic vs. Static Social Norms, Imminence, and Behavioral Intentions**

Dynamic norms are categorized as a type of descriptive norms. According to the Focus Theory of Normative Conduct, descriptive norms are social norms that represent the perceived prevalence of behavior (Mortensen et al., 2019). The main difference between dynamic and static descriptive norms lies in the assumption that static norms reflect the current status quo, and dynamic norms reflect the ongoing change in the current status quo (Lochelder et al. 2019). A plethora of studies have demonstrated the positive effects of dynamic norms on behavioral change across various consumer behaviour domains, including those related to health, and sustainability, e.g. in health-related behavior, dynamic norms increased intentions to reduce meat consumption in online and field studies (Sparkman & Walton, 2017, Sparkman et al, 2020, Lee&Liu, 2021), and intentions to drink less sugary

drinks (Sparkman&Walton, 2019). Yet, some recent studies point to the opposite and show negative effects: Sparkman et al. (2020) found backfiring effects of dynamic norms – significantly increasing orders containing meat; Adohl et al. (2021) didn't find evidence that dynamic norms increased interest in reducing meat consumption; Coker et al. (2022) found that dynamic norms were not effective in shifting customers' choices from meat-based to plant-based meal. Such contrasting outcomes emphasize the timeliness of research aimed at elucidating the underlying processes through which dynamic norms affect consumer behavior.

### *2.1. The mechanisms behind conformity to dynamic norms*

The emphasis on change differentiates dynamic norms from other types of norms. Empirical studies show that due to the ongoing change, dynamic norms affect consumer behavior more efficiently than static descriptive norms (Loschelder et al, 2019), increase the salience of the norms (Sparkman&Walton, 2017), and lead people to comply to the change itself as an aspect of norms (Sparkman et al., 2020). The psychological explanation behind peoples' tendency to comply with change is grounded in the Psychological Momentum Theory. This time-oriented perspective on psychological momentum suggests that when presented with prior trends, people tend to assume change in one direction will continue to move in that same direction (Maglio & Polman, 2016). Thus, a growing majority is much more influential than a simple majority, and potential outcomes that are increasing in probability feel more imminent (Mortensen et al., 2019). The way individuals respond to change is a topic extensively explored in the field of organizational management, where change is often associated with greater urgency and pressure than normal organizational activities (Ford, Ford & D'Amelio, 2008). Given that the emphasis on change excludes dynamic norms, we hypothesize that compared to static norms, dynamic norms will lead individuals to believe that the situation is likely to occur very soon. Stated formally,

**H1:** Dynamic (vs. static) norms will increase imminence.

### *2.2. Higher sense of imminence and increased compliance to normative information*

The belief that the situation is imminent sparks an immediate reaction to act. This phenomenon is well-known and widely recognized in procrastination studies, showing that the perception of an imminent deadline or task due date can increase students' task engagement and completion (Howel et al., 2006). Empirical studies in diet-related behaviors show that time orientation is a major predictor of food choices – individuals who perceive the consequences of their eating behavior as more immediate, are more likely to choose healthier

food (Antunez et al., 2022). In line with the literature, we hypothesize that imminence is considered a mediator because it is the mechanism through which dynamic norm information is hypothesized to influence participants' behavioral change. Stated formally,

**H2:** Imminence mediates the relationship between dynamic (*vs.* static) norms and vegan behavior intentions.

### **3. Boundary Conditions: Consumer Resistance to Change and Imminence**

Given that the emphasis on change excludes dynamic norms from other types of norms, it is more likely that when a person is resistant to change, the information about change will be perceived in high relevance and thus produce significant effects. In this study, we describe resistance to change as a personal trait, indicating peoples' sensitivity to change (Oreg, 2003). For those high on resistance to change, information about ongoing change might lead to perceive change as an external threat – a potential occurrence of events with negative repercussions for their well-being (Campbell et al., 2020). Studies in psychology show that the more relevant and personalized an external threat is to a person, the more intensely, closely, and inescapably they perceive it (Orlando et al., 2013). Thus, we hypothesize that for consumers who are high on resistance to change, dynamic (*vs.* static) norms will be perceived as more imminent. Extending the H2, we hypothesize that for consumers high on resistance to change, dynamic (*vs.* static) norms will produce higher perceptions of imminence, which in turn will lead to higher behavioral intentions. For consumers, who are low on resistance to change, dynamic (*vs.* static) norms will produce lower perceptions of imminence, which in turn will lead to lower behavioral intentions. Stated formally,

**H3:** The mediation effect of imminence on the relationship between dynamic (*vs.* static) norms and vegan behavioral intentions is moderated by consumer resistance to change. Specifically, for participants high on resistance to change (compared to low) dynamic (*vs.* static) norms will lead to higher perceptions (lower) of imminence.

### **4. Overview of Empirical Studies**

In the studies, we conducted three online experiments in mid-sized European country, each designed to examine different aspects of how dynamic (*vs.* static) norms influence consumer behavior towards healthier food choices. Experiment 1 showed that dynamic (*vs.* static) norms increased imminence (H1). Experiment 2 provided initial evidence that dynamic (*vs.* static) norms effectively increased vegan behavior intentions, because of higher

imminence (H2). The 3rd experiment was designed to explore the boundaries of the effect observed in the first two experiments. More specifically, in this study, we tested H3 and showed that the mediation effect was moderated by consumers' resistance to change trait. The moderated mediation effect was significant at both levels of the moderator: for consumers high on resistance to change dynamic (vs. static) norms increased vegan behavior intentions through imminence, but for consumers low on resistance to change the effect was negative.

#### 4.1 Study 1

Initial test of the hypothesis that dynamic (vs. static) norms increase imminence (H1).

**Method and measures.** We used an online panel administered by a professional research agency to recruit participants. The final sample consisted of 189 adults (regularly consuming meat in their diet) from a mid-sized European country ( $M$  age = 33.46,  $SD$  age = 4.86, 54.0% female), who took part in a single factor two-level design experiment (dynamic vs. static). Participants were randomly assigned to conditions based on manipulations developed by Sparkman and Walton (2019). In the dynamic condition, participants read: *“Please carefully read the extract from most recent European Consumer Organization (BEUC) report on Dietary Trends in Lithuania: More and more people are making an effort to reduce consumption of meat such as beef, pork, and poultry. Specifically, surveys find that many people in Lithuania are changing what they eat. Now more than 60% of people in Lithuania try to reduce meat consumption. Why do you think this is?”*. In the static condition - *“Please carefully read the extract from most recent European Consumer Organization (BEUC) report on Dietary Habits in Lithuania: Most people make an effort to reduce consumption of meat such as beef, pork, and poultry. Specifically, surveys find that more than 60% of people in Lithuania try to reduce meat consumption. Why do you think this is?”*. After we measured how imminent they perceived the situation („For many people reducing meat consumption will soon become a reality, 1= disagree strongly, 7= agree strongly”).

**Results.** The situation presented with dynamic norms was perceived to be more imminent ( $M$  dynamic = 4.17,  $SD$  = 1.73;  $M$  static = 3.66,  $SD$  = 1.56,  $t(187) = - 2.10$ ,  $p = .036$ ,  $d = 0.30$ ).

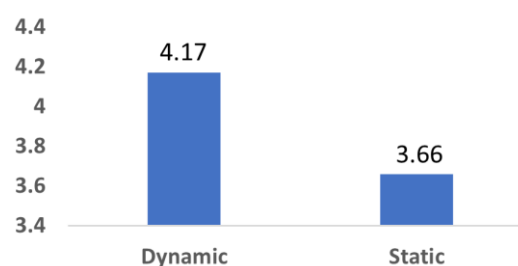


Figure 1. Imminence in Dynamic and Static Norm Conditions

## 4.2 Study 2

Study 2 tests H1 and H2 and aims to show that dynamic (vs. static) norms increase vegan behavior intentions because the situation presented with dynamic (vs. static) norms is perceived as more imminent. We further refined our methodological approach by adding two new items to the Imminence scale to enhance the depth of our exploration of the mediating processes.

**Method and measures.** We employed a convenience sampling approach and collected data both online and in-field. The final sample consisted of 205 Lithuanian adults ( $M$  age = 37.73,  $SD$  age = 10.54, 61.0% female) who took part in a single-factor two-level design experiment (dynamic vs. static). Participants were randomly assigned to manipulation conditions (similar to Exp.1). After reading the manipulation scenario, we measured participants' vegan behavioral intentions ( "How much would you like to sign up for this challenge via email or a free mobile app?" 1 = „not at all”, 9 =” quite a bit”). Next, we measured imminence with a more précised 3 items scale (“Reducing meat consumption is inevitable, For many people, reducing meat consumption will soon become a reality, Most people will not avoid cutting back on meat consumption",  $\alpha = .89$ ).

**Results.** First, we tested H1 and investigated whether dynamic (vs. static) norms increased imminence. As hypothesized, dynamic norms were perceived to be more imminent ( $M$  dynamic = 4.25,  $SD$  = 1.54;  $M$  static = 3.77,  $SD$  = 1.69,  $t(203) = - 2.11$ ,  $p = .036$ ,  $d = 0.29$ ). Next, we ran a mediation test (PROCESS, Model 4, Hayes 2018; 10,000 samples) to examine our proposed process. As predicted, the test revealed that dynamic norms increased behavior intentions ( $\beta = .29$ ,  $SE = .15$ , 95%  $CI$  [.020 to .620], because of higher imminence.

## 4.3 Study 3

The goal of the 3<sup>rd</sup> experiment was to investigate the moderation effect of resistance to change trait (Oreg, 2003) on dynamic (vs. static) norms effect on imminence and vegan behavior intentions. Specifically, we intended to determine whether or not the mediation effect remains constant across different levels of the moderator (See Figure 2).

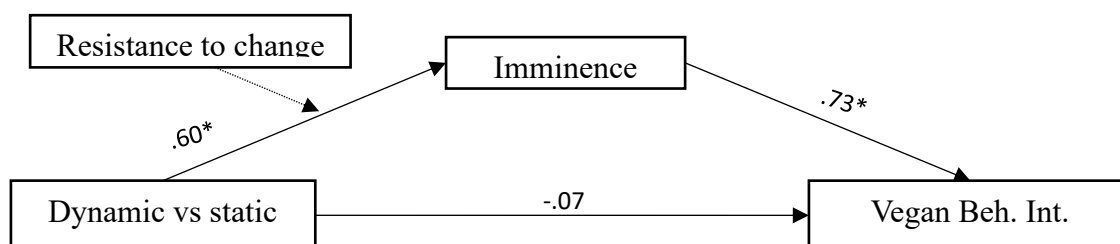


Figure 2. Visual representation of Moderated mediation model

\*  $p < .05$ .

**Method and measures.** Data collection procedures were the same as in Experiment 2. The final sample consisted of 227 Lithuanian adults ( $M$  age = 37.91,  $SD$  age = 11.40, 74.0% female) who took part in a single-factor two-level design experiment (dynamic vs. static). Participants were randomly assigned to manipulation conditions (same as in Exp.1). After participants read the manipulation scenario, we measured their vegan behavioral intentions (same as in Exp. 2). Next, we measured imminence (same as in Exp.2,  $\alpha = .83$ ). Finally, we measured participants' resistance to change trait (based on Oreg, 2003 "*Changing plans seems like a real hassle to me, When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me, Once I've made plans, I'm not likely to change them, Often, I feel a bit uncomfortable even about changes that may potentially improve my life*",  $\alpha = .66$ ).

**Results.** First, we explored the role of the resistance to change trait by running a simple moderation analysis (PROCESS, Model 1) with norms as the independent variable (static=0, dynamic=1), resistance to change as the moderator, and imminence as the dependent variable. The conditional effect showed corresponding results. As predicted the interaction between dynamic (vs. static) norms \* consumer resistance to change and perceptions of imminence was found statistically significant ( $\beta = .60$ ,  $SE = .16$ ,  $t(223) = 3.56$ ,  $p < .001$ ). A spotlight analysis showed that our predicted interaction between dynamic (vs. static) norms and imminence was significant at both low and high levels of the moderator. However the direction of the relationship between the independent and dependent variable was different: for consumers high on resistance to change, dynamic (vs static) norms increased imminence ( $\beta = .83$ ,  $SE=.36$ ,  $t(225)=2.28$ ,  $p =.023$ ), but for consumers low on resistance to change - dynamic (vs static) norms decreased imminence ( $\beta = -1.02$ ,  $SE = .36$ ,  $t(225) =-2.81$ ,  $p =.005$  (evaluated at  $-/+1$  SD). See Figure 2 for moderation results.

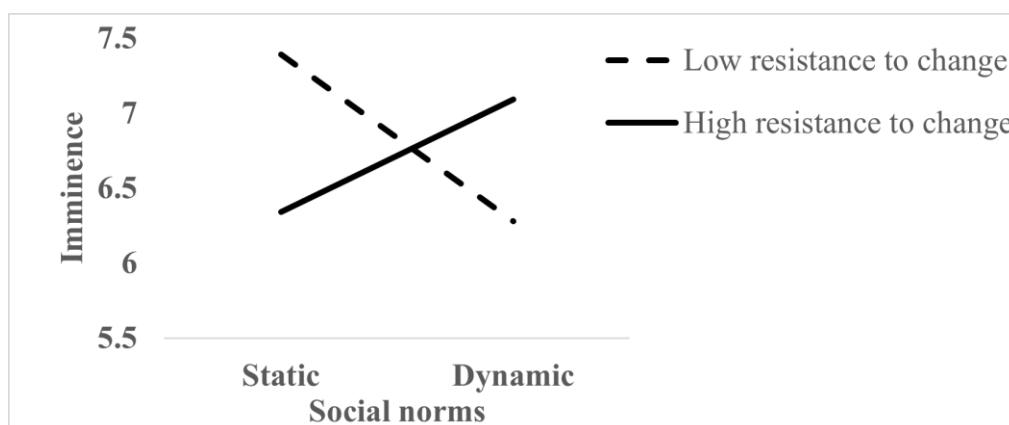


Figure 2. Perceptions of imminence in dynamic and static social norms



To test the moderated mediation posited in H3, we employed model 7 in the PROCESS macro with 10,000 bootstrap samples. We examined the conditional indirect effects of dynamic (vs. static) norms on vegan behavior intentions via imminence at three levels of consumer resistance to change trait ( $-1 SD$ ,  $M$ ,  $+1 SD$ ). The results revealed significant index of moderated mediation ( $a \times b = .44$ ,  $SE = .12$ ,  $95\% CI [.208, .712]$ ). This effect was conditional such that the moderated mediation path was significant for consumers high on resistance to change ( $\beta = .58$ ,  $SE = .26$ ,  $95\% CI [.078, 1.13]$ ) and low resistance to change ( $\beta = -.81$ ,  $SE = .28$ ,  $95\% CI [-1.38, -.268]$ ), but not significant at moderate levels of resistance to change ( $\beta = -.03$ ,  $SE = .28$ ,  $95\% CI [-.399, .349]$ ). Overall, H3 was supported.

## 5. Discussion and Implications

The research contributes to the prior work in consumer research related to the effects of normative social influence on consumer behavior by suggesting novel underlying mechanisms that explain the effects of dynamic (vs. static) norms on health-related behaviour. Specifically, in experiment 1, we show that dynamic (vs static) norms are perceived as more imminent. Further, in experiment 2, we introduce and empirically test the mediation effects of imminence, which explains why dynamic norms might be more effective than static norms. In support of H1 and H2, the experiments show that the effect of dynamic (vs. static) norms on consumer behavior change towards a healthier diet emerges because the situation presented with dynamic norms (vs. static) is perceived as more imminent. Thus, in experiment 3, we add novel and deeper insights to the previous explanation, showing its boundary conditions. The results of the 3rd study imply that resistance to change is a strong moderator of dynamic (vs static) norms' effect on imminence. In support of H3, it shows that for consumers high on resistance to change, dynamic (vs. static) norms lead to higher vegan behavior intentions due to higher imminence, but for consumer low on resistance to change it has negative effects because of lower perceptions of imminence.

### 5.2. Research novelty

In addition to the above-mentioned novelties, the findings of this research pave the way for new research inquiries in consumer research. As a personal trait, consumer resistance to change has primarily been examined in the context of organizational management, where numerous studies have demonstrated that individuals with high resistance to change are less likely to change their behavior (Oreg, 2003). In the context of our research, we offer valuable insights that counter this prevailing trend. Specifically, our findings suggest, that for

consumers, who are high on resistance to change, exposure to dynamic norms might increase health-related behavioral intentions because of increased imminence.

### *5.1. Contribution to the marketing discipline*

This research adds to the emerging research in consumer behavior highlighting dynamic (vs. static) social norms as a promising strategy for promoting counter-normative behavior (Sparkman & Walton, 2017, 2019, 2020, Mortensen et al., 2019, Lee & Liu, 2021, Lochelder et al. 2019, Cialdini & Jacobson, 2021). The research extends the consumer research theory by pointing to the novel underlying mechanisms, thus contributing to other well-established theories and consumer behavior explanations, such as Focus theory of normative conduct (Cialdini, Reno, & Kallgren, 1990), Psychological reactance theory (Brehm, 1966), or Psychological momentum theory (Maglio & Polman, 2016). These insights can have significant practical implications guiding marketers to develop tailored interventions and campaigns that resonate with different consumer segments, ultimately leading to more successful behavior change initiatives.

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