

**Psychological and physical well-being:
how to communicate promote health in grocery stores**

Benedetta Grandi*, Maria Grazia Cardinali*, Guido Cristini*, Susanna Graziano*

Abstract

How information are presented can influence the response of the individuals in terms of attitudes, intentions and behaviours. The framing theory posit that gain-framed and loss-framed messages can lead to different outputs and are more effective in some situations over others. Messages that stress the benefits of a certain behaviours are found to be more effective in promoting preventive behaviours, while messages that highlight the negative consequences of a behaviours are found to be more impactful for high-risky behaviours. Diet and healthy eating, since are considered low-risky behaviours, have been promoted in literature using gain-framed communication. Among the benefits associated to a healthy diet, psychological and physical ones must be cited. The present study wants to test the effectiveness of two types of health communication (psychological and physical benefits) conducting a field experiment. Thanks to the collaboration of a leading italian grocery retail chain, we tested the two stimuli in two different stores with the aim to promote a set of private label products in three categories (cereals, snacks and cookies). Instore observations have been conducted and questionnaires administered, Results show that communication focused on psychological well-being could be more effective in promoting the purchase of a healthy product. Sales data must be collected to enrich the contribution.

Keywords health, instore, framing, gain and loss, psychological well-being, physical well-being

Introduction

The concept of bounded rationality, as proposed by Simon (1955), posits that the information an individual possesses, their cognitive abilities, and the time they have limit their decision-making rationality. This theory explains why decision-making often deviates from ideal rationality. Comprehending bounded rationality is key to grasping these mental strategies, as it provides the framework for these brain-based shortcuts. Building on the understanding of these mental shortcuts in our decision-making process, we focus on the concept of framing. Individuals use this bias, which has a close link to heuristics, as a mental shortcut when they make decisions in uncertain situations (Chaudhuri, 2021). The presentation of a decision can influence people's perceptions of possible outcomes. This happens because they respond sensitively to the decision's presentation. Framing, a cognitive bias, sways people's decisions based on whether options carry positive or negative implications (Chaudhuri, 2021). Positive framing

* Università degli Studi di Parma, Dipartimento di Scienze Economiche e Aziendali; Benedetta Grandi, Ricercatrice, benedetta.grandi@unipr.it; Maria Grazia Cardinali, Professore Ordinario di Marketing, mariagrazia.cardinali@unipr.it; Guido Cristini, Professore Ordinario di Marketing, guido.cristini@unipr.it; Susanna Graziano, Assegnista di Ricerca, susanna.graziano@unipr.it

typically leads to risk aversion, while negative framing often results in risk-seeking behaviour (Tversky & Kahneman, 1981). In the context of fast-moving consumer goods (FMCG), people's choices can be influenced by the way they are presented (Kahneman & Tversky, 1984). Therefore, supermarkets can highlight the benefits of consuming fruit and vegetables or emphasise the negative health consequences of consuming high-sugar or high-fat food (Eguren et al., 2021). As a matter of fact, gain-framed messages are more persuasive when related to low-risky behaviors (prevention behaviors), while on the other hand, loss-framed communications are more effective in promoting high-risky behaviors. The extant literature tells us that the effectiveness of the communication can vary based on individual differences, such as consumers' need for cognition (NFC) and their environmental attitudes (Grandi et al., 2019; Lin et al., 2017; White et al., 2019); but the studies in the field agree that positive framing brings better results in influencing attitudes, intentions and behaviors (Gallagher and Updegraff, 2012). In the context of positive framing, the research aims to determine the efficacy of various communication strategies. Specifically, it seeks to compare the impact of messages emphasizing mental health benefits versus those highlighting physical health benefits. In this work, we will focus on the comparison between physical and mental well-being and the effectiveness of in store communication.

Literature review

In-store communication has emerged as a key aspect in the retail sector's investment strategy for health promotion (Cardinali, 2017; Zaghi, 2023). This powerful tool can be strategically employed to stimulate purchases within a category, particularly steering consumers towards healthier products. It goes beyond simple product promotion. It aims to support a healthier lifestyle among consumers. It involves designing a narrative that engages customers, aligns with their needs, and decisively shapes their purchasing choices. Health is an extremely varied aspect that touches on different sides. When discussing well-being, we can refer to both mental and physical domains, both of which should be considered in relation to our dietary habits (Owen & Corfe, 2017). The nutritional value of food and its components can directly affect our mood or body (Firth et al., 2020). Physical and mental well-being are the main priorities for 40% of Italians. 34% claim to implement strategies to prevent future health problems. Regarding product selection for their well-being, 74% choose a product because it is beneficial to their health, and 63% even try new products aimed at improving physical and mental well-being (Nielsen IQ, 2024). Diet significantly influences both physical health and mental well-being (Blackford, 2021). A diet of superior quality, marked by healthy fats, limited fast foods, a variety of fruits and vegetables and high-fiber foods is central to this equation (Albertson et al., 2012; Brinberg et al., 2000). High glycaemic index diets, predominantly composed of refined carbohydrates, can have negative effects on mood and mental health (Firth et al., 2020). Furthermore, it is crucial to consider the potential psychological implications of dietary choices. In particular, high glycaemic index foods can have potential bad effects on our mood and mental health. A balanced diet with a lower glycaemic index can contribute to improved mood stability and overall mental well-being (Firth et al., 2020). Consumers today are more aware of the link between diet and mental health, and they value products that contribute to their

psychological well-being (Deloitte, 2021; Firth et al., 2020). Furthermore, messages emphasizing psychological well-being may resonate more deeply with consumers, as they often seek food products not just for physical nourishment but also for comfort, stress relief, and mood enhancement (Luomala et al., 2023). It would be insightful to investigate whether emphasizing mental health benefits could indeed be a more effective strategy in promoting healthier food choices. Thus, we posit that:

H1 *Communication focused on psychological well-being is more effective in changing the purchasing habits of healthy products compared to communication emphasizing physical well-being*

Methodology

Following a pre-test phase that involved about 500 students and teaching staff, a field experiment was conducted to evaluate the effectiveness between two different in-store communications. Thanks to the collaboration of a leading retail chain in the grocery sector and thanks to the collaboration of an advertising agency, the two communications (psychological and physical well-being) have been implemented in two stores in the northern part of Italy in three different categories of products – cereals, snacks and cookies. The two communications aimed at promoting a set of private label products identified in accordance with the retailer given their nutritional profile. The communication messages used are presented in Table 1.

Table 1 _ *Communication messages scheme used for the in-store communication*

Physical Health Benefit	Mental Health Benefit
“ENERGY is WELLBEING A varied and balanced diet and a healthy lifestyle are the foundation of your wellbeing. Discover HERE our selection of products that, due to their ingredients and nutritional values, can contribute to your physical well-being.	“GOOD MOOD is WELLBEING A varied and balanced diet and a healthy lifestyle are the foundation of your wellbeing. Discover HERE our selection of products that, due to their ingredients and nutritional values, can contribute to your psychophysical well-being.”

The study involved a sample of 202 individuals, approached inside the stores during their shopping expedition, equally distributed along the three categories of products. Each participant voluntarily completed a semi-structured questionnaire. One hundred responses in total were collected from Parma and 102 from Modena. The sample was predominantly composed of female (66.83%), with an average age of 47.78 years and a median age of 50 years. To test the first hypothesis, the effectiveness of the display across the two retail locations was assessed through regular interval observations that involved tracking the number of individuals passing through the aisle, those who handled at least one of the advertised products, and finally, those who actually purchased the product (Table 2). Secondly, the effectiveness was assessed through 7-point Likert scale questions regarding the perceived usefulness and value of the message and the perceived influence of the communication on the purchasing behaviour (Table 3).

Table 2 _ Sales funnel and display attractiveness (index)

Communication	Categories	ATTRACTIVENESS (viewer/traffic)	INTERACTION (engage/viewer)	PURCHASE (purchase/viewer)
Psychological well-being	Cereals	59,75%	56,84%	38,95%
	Snacks	36,70%	29,59%	11,22%
	Cookies	53,56%	40,56%	23,08%
Physical well-being	Cereals	51,46%	49,06%	26,42%
	Snacks	43,82%	43,59%	17,95%
	Cookies	45,26%	51,16%	23,26%

Table 3 _ 4 Scales descriptions and Cronbach's Alpha

Variable	Reference	Items	α
ADV_BEHAVIOR	(Lacroix et al., 2020)	<ol style="list-style-type: none"> 1. This ad prompts me to look for information on products/services/the bank 2. This ad prompts me to change my behaviour (e.g. perform more transactions, use the website) 3. This ad prompts me to discuss about it with my friends, my entourage 	0.709
ADV_EFFECTIVENESS	(Kim & Lakshmanan, 2015; Lehnert et al., 2014)	<ol style="list-style-type: none"> 1. The ad was useful to me 2. The ad was appropriate to me 3. The ad was valuable to me 4. The ad is informative 5. The ad is understandable 	0.841

The results of a t-test pointed out that communication focused on psychological well-being is more effective in changing healthy product purchasing habits than communication emphasizing physical wellbeing. The analysis reveals that for “Effectiveness of the ad”, the Levene’s test does not indicate a significant variance in equality ($F = 2.526$; $p = .114$), allowing equal variances in the subsequent t-test. The t-test uncovers a statistically significant difference between the means with a one-way p-value of .013 ($t(200) = 2.252$), suggesting evidence supporting the effectiveness of advertising with a mean difference of .41125. Conversely, the Levene’s test results for “Perceived behavioural ad” also suggest homogeneity of variances ($F = 1.348$; $p = .247$). However, the t-test does not indicate a significant effect on perceived behaviour with both one-way ($p = .104$) and two-way tests ($p = .207$), implying that any observed difference could be due to other external factors. Further analysis on the differences between categories did not show any significant difference in the answers of the shoppers.

Conclusion and future research

The findings suggest that while in-store communication can influence purchasing decisions, several barriers, such as time constraints and scepticism about the authenticity of the information provided, hinder customer engagement. The analysis reveals that communication focused on psychological well-being could be more

effective in promoting the purchase of a healthy product. This suggests that retailers should consider focusing their communication strategies on psychological well-being to influence purchasing habits effectively. However, it also highlights the complexity of perceived behaviour, suggesting that it may be influenced by factors beyond the scope of this study. The impact on perceived behaviour remains inconclusive, suggesting the need for further investigation. In conclusion, the study provides valuable insights that can help retailers enhance the effectiveness of their in-store communication strategies, thereby influencing consumer purchasing behaviour and ultimately driving sales growth. However, further research is needed to validate these findings and explore other factors that may influence the effectiveness of in-store communication. Finally, sales data can be useful in understanding the impact of the communication not only in terms of purchasing behaviour but also in terms of store profitability. Next steps of the study will include the analysis of the sales in the three categories selected and the impact of this communication strategy on the overall in-store behaviour of shoppers using fidelity card data and insights. Understanding if a health communication implemented on a limited set of products (breakfast products) can increase shoppers' health interest and consequently the sales of perceived healthy products is paramount for retailers that need to allocate resources and provide effective communication strategies to differentiate themselves from competitors.

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