Sustainability context in creative brief personified: More ideas from consumers in crowd sourcing? The mediating role of mental transportation and moderating role of mental imagery ability

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Abstract:

Sustainable consumption can be promoted through integration of the consumers in co creation process. It can help them to think deeply about sustainability along with their own satisfaction of creative thirst. Though organizations and companies use this method regularly, there is less understanding on how to stimulate consumers in these type of campaigns. This article shows with a study (N=248) that, personification techniques included in creative briefs for sustainability context as a way to improve individual creativity during idea generation stage. It also gives an understanding of the mediating role of mental transportation and moderating role of mental imagery ability.

Keywords : Personification ; Mental transportation ; Creativity.

1. Introduction

Environmental concern in every aspect of our life has become quite pivotal in most recent times. To make the general mass people well educated and helping them to be habituated in utilizing the world's natural resources in optimized manner, all related institutions are working continuously. This statement can be verified from the top most organizations like United Nations through their sustainable goal plan or CSR activities of relatively very small entrepreneurial firms. Though for long times, overpopulated world and modern technology development are main reasons for environmental problems (Diamond, 2011), in recent times, Covid-19 and unprecedented world political situation strongly alerts us to be much more concerned than ever before about sustainability.

Most of the times, in terms of sustainability context, we see research on attitude or behavioral change of the consumers or to motivate them in sustainable consumptions with effective marketing communication. But there is a new potential horizon overlooked, which can not only motivate the consumers in long run for sustainable consumption, but also give them a chance to own the sustainable thinking and that is by integrating them in the co-creation process of innovation.

Creativity issues cannot be kept outside of the realm of innovation. Particularly individual creativity is the very beginning point of any innovation process. It is quite imperative to understand individual creativity and its possible room for further improvement by some means. To meet the requirements of innovation, companies always try to find novel and effective ways to increase the individual creativity so that they can come up with competitive creative product/ service in market. The need to stimulate creativity is even greater when "ordinary" consumers are involved in the ideation phase of many creativity contests open to users in the context of co-creation or crowd sourcing. While professional designers are supposed to be recruited on the basis of their qualities and skills, especially in terms of creativity, this is not the case for consumers involved in co-creation processes. Therefore, for these individuals, the stimulation of individual creativity is even more essential.

Among the levers evoked as likely to stimulate and foster individual creativity is mental imagery. Indeed, as Hasirci and Demirkan (2007) explain: "Creativity and imagery are very closely connected. Creativity undeniably involves imagination that is, forming the mental image of something that does not exist". Likewise, creativity seems to be fostered by "letting go" as some creative's and artists explain it. A particular form of mental imagery activity, transportation, seems to combine the two aspects of letting go and surrendering to another world that is out of everyday life. Indeed, transportation refers to an immersion into a text, a story, a narrative and differs from an analytical processing based on logical consideration and evaluation whereas mental transportation acts through affective reactions (Green and Brock, 2000). As a result, transportation could be likely to encourage the letting go and, consequently, the release of imagination.

An interesting and original way to activate this mental transportation would be personification. Indeed, products and/or brands are often compared to human beings. Some products are equipped by companies and marketing/communication agencies with human characteristics when the product is already developed. For instance, M&M's chocolate candies have become popular characters in their own right, speaking and moving like human beings thanks to marketing and advertising strategies based on product personification. But, personification is not used in the upstream phases of the innovation process. Personification is

therefore commonly used in product and brand development and management but has not yet been used in the creative phases of the innovation process to our knowledge. In the process of idea generation, brands usually provide a creative brief according to their demand regarding product or service that gives indications on product/service specification, functionalities and/or benefits sought, and very often some examples in order to direct creativity. However, personification used in the creative brief given to people placed in creativity conditions could have an important advantage, that of eliciting mental transportation. Personification has been often used in child education in terms of learning process and clarifying ideas and concepts for many years, with certain pros and cons. But, in marketing field, though there are some literatures regarding anthropomorphic product (result of personification), those do not clarify whether the inclusion of personification characteristics in creative brief for idea generation process can improve individual creativity. Therefore there is a certain research gap to understand for the link between personification characteristics and creativity and the underlying mechanism. We propose to explore this link between personification and creativity with the mediating role of mental transportation in order to understand the mechanisms of action of personification in this context. Given the characteristics of personification, the mental transportation is very much possible and expected that could be generated by creative scenarios, examples and briefs using personification techniques.

Thus, a first contribution of this article is to consider personification in marketing for completely different purposes than those usually known (product or brand marketing) since it involves using it in a context of ideation within the creative process. Another contribution is to examine the consequences of this personification whether it can have effect on the fluency of the ideas provided by the consumers. Finally, a final contribution is to explore a mechanism underlying the action of personification on those aspects of creativity, in this case a mediation mechanism: mental transportation and moderating effect of mental imagery ability. Before presenting the methodology envisaged to test our hypotheses, we will first of all specify the concepts used in the present research. And we will conclude this paper by highlighting the contributions, and also by providing avenues for further research in discussion.

2. Conceptual framework and hypotheses development

2.1 Creativity

Now a days, there are so many propositions available to participate in co-creation process of the innovation companies. This ranges from general digital platform "EYEKA" to company own platform of IKEA. The competitive contests on different problems are regularly organized from European Union to regional city administration. Though all these are seen as creative contests, organizers always have a hidden demand- to integrate the consumers in the system so that they can think themselves as an important stakeholder.

"The contemporary approach to creativity research assumes that, all humans with normal capacities are able to produce at least moderately creative work in some domain, some of the time" (Amabile ,1996). Therefore, creativity not only means the good artworks or highly innovative product, rather we all work in our everyday life quite creatively to find the solution of our problems. Mayer (1999) has proposed that, there is a need to elucidate if creativity is a property of : (1) "People", (2)" Product" or (3)" Processes". However, Rhodes (1961, p. 305)

had the fourth "P", "*Press*" (environment) in his work. That indicates very clearly the necessity of a favorable environment to stimulate creativity of an individual, in this case our consumers participated in co creation process of crowd sourcing. Deutsch, M. (2006) emphasize on creating an environment of playfulness among the seven guidelines to foster creativity which makes people free to come with new approach. The output of an individual creativity can be measured by different ways. One of the common measures is divergent thinking approach. Divergent thinking works on providing as much as possible solution of any particular problem. According to Guilford (1950), when there is more ideas generated, there is high probability to get good idea. Therefore, in this paper, we have considered the fluency of ideas (number of ideas generated by the consumers) as the measurement of creativity.

In the context of creativity process, it may be relevant and effective to better exploit the powers and benefits of Personification technique.

2.2 Personification

When non-human things are shown in a manner that we feel, those have human like abilities to perform, is called "Personification". We often see and compare a product or service with humanlike abilities. But it happens when the product/service is already developed. While at house or at the workplace, if we investigate the items around us – the work area, the lights, or the entryways - we would identify a charming likeness between these lifeless things and human characteristics, an eye, a mouth perhaps or a much mind boggling thing as human feelings like a nice smile. We probably won't take purchasing decision on the basis of outlook of the product, but the profound similarity of likeliness with human feelings leads us consciously or unconsciously to love these objects or even identify more easily with them. Personification is often used for the marketing of new products and brands. According to Gallant (1981), three noteworthy kinds of personification are anthropomorphism, teleology and animism. Piaget (1951) introduced child animism. For Piaget, animism alludes to the propensity kids need to perceive objects as living and cognizant, while anthropomorphism comes with humanlike characteristics like thinking, sentiments and other abilities of human. According to Delbaere M. et al.(2011), when personification is used in marketing communication to see the attitude or intention to buy the particular product, people usually process them as a combination of anthropomorphism and metaphorical processing. Anthropomorphism creates a human like character in the mind and metaphorical thinking process tries to match the latent or hidden meaning. Creative problem can be solved with metaphorical thinking (Gordon, 1968) and on this basis, we assume our first hypothesis.

H1: A creative brief of a sustainability context with personification (vs. without personification) will increase number of ideas produced (fluency of creativity) by the consumers.

Now, we would expect this hypothesis H1 phenomenon to be explained by a variable, named "mental transportation".

2.3 Mental Transportation

According to Green and Brock (2000), the term "transportation" depicts the phenomenon, experienced by the recipients of a story message, of being profoundly mentally

associated with a story. Transportation is comprehended by Green and Brock as joined procedure, where the majority of the individual's psychological frameworks and abilities become concentrated on the occasions happening in the narrative. They consider that transportation is a "distinct mental process, an integrative melding of attention, imagery, and feelings" and Green and Clark (2013) explain that "Transported individuals feel as though they have departed from normal reality into the imagined world of the story. This state makes individuals more open to attitude change". For all these reasons, we believe that it could be beneficial to include personification in the texts of specifications and other creative briefs, so as to transport the creators and designers in a mental transportation that would make their emotions more accessible and, thus, improve their creativity with the help of scenarios, examples and briefs using personification techniques.

H2: Mental transportation will mediate the relationship between personified sustainability context (vs.non personified) in the creative brief and creativity fluency.

H2a: Personified sustainability context (vs.non personified) in the creative brief has an effect on mental transportation.

H2b: Mental transportation will have an effect on creativity fluency.

2.4 Mental imagery ability

According to MacInnis and Price (1987), the bridge between sensory information and working memory is the space where mental imagery works. Mental imagery has different dimensions. Quantity, vividness, elaboration, valence *etc.* are the various dimensions of the mental imagery. Every person has different ability of imagine something on these criteria of mental imagery, which can be termed as mental imagery ability and particularly this ability is based usually on the vividness of the mental images someone can imagine without the physical appearance of something or someone.

In the existing literatures, there is lack of understanding whether there is any moderating relationship between personified text and mental transportation. As personification of the sustainability context will make people imagine and transport to other mode out of reality, we suppose mental imagery ability will have a moderating impact.

H3: Mental imagery ability will work as moderator between personified sustainability context in the creative brief and mental transportation.

3. Research methodology and results:

The study was conducted to test the hypotheses H1, H2 (H2a and H2b) and H3 discussed earlier. In terms of sustainability context, we have chosen sustainable food consumption (particularly Consumption of local and seasonal fruits). We have personified one text and other one was normally written (see Table 1). These two different texts were distributed randomly to the participants of the contests in the form of crowd sourcing. We wanted to see whether personified sustainability context foster the creativity fluency of the consumers. We would also

like to get understanding regarding the mediating effect of mental transportation and moderating effect of metal imagery ability.

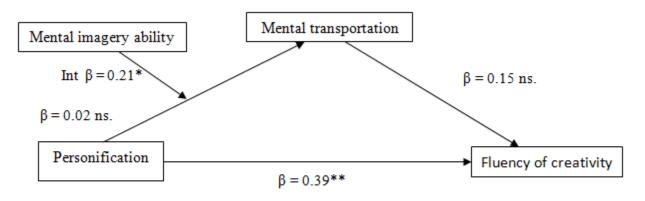
We should keep the planet earth green. Local and seasonal fruits consumption can be a way for that. Strawberries are produced seasonally. Local and seasonal fruits are cultivated around your nearby locality. The price does not include long distance shipping cost. So, the price is affordable. The local farmers can be helped by buying these fruits. Like strawberries, apples are also produced for a particular time period in the year. Locally planted big apples are fuller in nutrition and with real taste. These local and seasonal fruits are not shipped long way. So, there is less emission from fuel in the environment. Eventually there is less	Sustainability context : Non-personific	ed Sustainability context : Personified
pollution in the planet earth and it remains from pollution and stays young. green.	and seasonal fruits consumption can b way for that. Strawberries are produ- seasonally. Local and seasonal fruits cultivated around your nearby locality. ⁴ price does not include long distance shipp cost. So, the price is affordable. The lo farmers can be helped by buying these fru Like strawberries, apples are also produ- for a particular time period in the y Locally planted big apples are fuller nutrition and with real taste. These local seasonal fruits are not shipped long way. there is less emission from fuel in environment. Eventually there is pollution in the planet earth and it rema-	and seasonal fruits can show you a way for that. Strawberries come to meet you for a particular time period in the year. Local and seasonal fruits develop themselves around your home. They do not spend on traveling cost for long distance. So, they offer affordable price. They ask for your help for the betterment of the local farmers. Like strawberries, apples also come into your home for a particular time period in the year. Locally grown fat apples support you with fuller nutrition and real taste. These local and seasonal So, fruits do not like to travel long way. So, they cause less fuel waste in the environment. Eventually, the planet earth becomes less sick

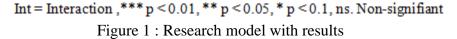
Table 1 : Non- personified and Personified text for Sustainable food consumption

We collaborated with a market research company for his experiment. In terms of creativity, problem solving aspect is considered in this study. First, the participants were told that, it was a creative campaign and data would be used for research purpose. No other details were communicated. Then they were given the moderating variable -mental imagery ability questionnaire. After that, randomly any of the two texts about sustainable food consumption were shown. They were given 5 minutes for idea generation and to write it down. They were requested to provide us ideas on how to promote these local and seasonal fruits so that consumers can get and buy those easily. After that, they responded to the mediating variable questionnaire-mental transportation and demographic questionnaire. Participants were paid 3 US Dollars per participation. No repeated participation was ensured.

Total number of participants in the study were 248 (105 male, 142 female, 1 other) .The mean age of them were 36.58 (SD = 1.70) years. There were 137 participants from USA (55.24%) and 111 participants from UK (44.76%). Mental imagery ability (scale adapted from Vividness of mental imagery capacity (reliability, α = 0.813) proposed by Marks (1973) was used. 122 of the participants got creative briefs personified and 126 got with creative briefs non-personified. The mental transportation scale (reliability, α = 0.703) was adapted from Markus Appel et al.(2015).Likert scale of 7-point labeled from "strongly disagree" to "strongly agree" had been used for all the scales expect the demographics questionnaire.

A number of total 725 ($M_{ideas} = 2.92$; SD = 1.419) ideas were provided by 248 participants. For testing the mediated moderation and all hypotheses, model 7 of Preacher and Hayes' macro in SPSS was utilized. We see that, there is a significant main effect between the personified sustainability context and the fluency of the creative ideas (F(1, 246) = 4.821; p = 0.029) ($M_{Personification} = 3.12$; $M_{Without Personification} = 2.73$). That indicates, personified texts had been able to foster the creativity of the consumers, proving our hypothesis H1.





But PROCESS macro model 7 shows that, personified text did not have significant relationship with mental transportation ($\beta = 0.02$, p=0.86), which does not allow us to accept H2a. But if we take into consideration of interaction of personified text and mental imagery ability, we can observe marginal significance ($\beta = 0.21$, p=0.05), making H3 into consideration. Finally the relationship between mental transportation and fluency of creativity showed non significance ($\beta = 0.15$, p=0.06) not accepting H2b. Though our initial test is very primary step into this particular field, more samples or other contexts could show more significant results.

The conclusion from the experiment is that, personified creative brief of the situation/context of locally grown seasonal fruits consumption was able to foster the creativity fluency of the consumers, but mental transportation was not able to support the mechanism in proper manner. In the next section, We will try to discuss the possible reasons and justification regarding the results and future avenue of the research.

4. Theoretical and managerial contribution and Future avenues for research:

In terms of expected results, we assumed personification characteristics will be much more effective way to improve the creativity for idea generation of a context or situation, which can later be extended to see also in case of different types of product /service. We have successfully shown that, in sustainability context, if we create the creative briefs with personification , we can be provided with more ideas from them in crowd sourcing. Through transportation, we expected an effect on fluency which did not happen according to our assumptions. But taking into consideration of mental imagery ability, we have got initial understanding. Moreover, the relationship between mental transportation and fluency needs to be checked trying with other types of context or maybe with large sample set.

This research will have contribution theoretically and can also help managers. From academic point of view, it will help to understand a new way inclusion in creative briefs that could be much more effective for creativity purposes. It shows the possible relationship through a transportation-imagery ability model and creativity fluency. The outcome of this study show those in quantitative format.

Managers can rely on this technique in their creative briefs for better idea gathering from the people who are related to the idea generation process. It can be introduced during idea generation inside company and also in case of open innovation platforms or contests. So, this research will have impact for both academia and industries.

It will be necessary to refine the understanding of personification characteristics in creative brief and test other kinds of personification through new studies. This study provides now a much open space to study the mediation process by other possible mediators, more particularly with mental imagery itself with its different dimensions- vividness, quantity, elaboration or valence. Moreover, it can be used to see other possible aspects than sustainability.

Finally, with a primary understanding of such a model in crowd sourcing can be useful for marketing approach in sustainability context, which will help consumers to practice thinking about sustainability in more positively, strongly and above all subconsciously.

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