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ENHANCING MEETINGS: THE IMPACT OF LEADER BEHAVIOR

Abstract

This research examined the effects of meeting leader behavior on organizational meetings. Two studies investigated whether leader behavior that satisfies the psychological needs of meeting attendees, leads to higher levels of meeting productivity and satisfaction. Study 1 used correlational methods, with regression-based mediation analysis, to assess whether satisfaction of attendee needs mediated the association between leader behavior and attendee ratings of actual meetings in a sample of 110 employees. Study 2 involved an analogue experiment with 158 employees to test the effects of leader behavior on ratings of hypothetical meeting scenarios. The studies provide correlational and experimental evidence for the positive impact of needs-focused behaviors, offering organizational leaders practical solutions for improving meetings.

Introduction

Meetings can be valuable organizational tools when used as catalysts for psychological well-being and productivity in the workplace (Allen, Lehmann-Willenbrock, & Sands, 2016). Face-to-face meetings are particularly useful sites for collaboration where attendees can work together to reach meeting aims and organizational goals (Ford, 2010; Kirkman, Rosen, Tesluk, & Gibson, 2004; Rogelberg, Shanock, & Scott, 2011). Such effective workplace interactions give rise to a sense of collective identity among group members and, by doing so, may strengthen the commitment of employees to their work and organization (Islam & Zyphur, 2009; Jay, 1976). Poorly run meetings, on the other hand, can have adverse effects on psychological health and employee attitudes. Many workers describe meetings as "daily hassles" (Luong & Rogelberg, 2005; Mroz & Allen, 2015). Such emotions resulting from poor-quality meetings can lead employees to lose a sense of purpose in their work (Chalofsky, 2003). For example, long-winded and unproductive meetings can create dissatisfaction among workers to the point where they may feel the need to resign from their jobs (Leach, Rogelberg, Warr, & Burnfield, 2009).

Impact of Leader Behavior. Much depends on the behavior of the person running the meeting. Recent research has shown that the meeting leader can influence the extent to which attendees perceive meetings to be enjoyable and productive (Nixon & Littlepage, 1992; Odermatt, König, Kleinmann, Nussbaumer, Rosenbaum, Olien, & Rogelberg, 2016; Tobia & Becker, 1990). For example, research by Malouff, Calic, McGrory, Murrell, and Schutte (2012) found significant positive associations between leader behavior likely to satisfy attendee needs,

and attendee ratings of meeting satisfaction and productivity. Small-N research by Douglass, Malouff, and Rangan (2015) focusing on the effects of expert-recommended behaviors, such as starting the meeting on time and following the agenda, found that satisfaction and productivity ratings increased significantly once leaders were trained to use such need-satisfying behaviors. The findings of this research indicated that one way to create satisfaction with meetings is for meeting leaders to fulfill the needs of those attending (Douglass, et al., 2015).

Hierarchy of Needs Theory Applied to Meetings. In a hierarchical theory that can be applied to organizational practice (Jerome, 2013; Stum, 2001), Maslow (1943) postulated that distinct human needs serve as drives and motivate behavior. Attendee needs at the three highest levels of the hierarchy apply to running organizational meetings (Douglass, et al., 2015). First is the need to have a sense of belonging to the group that is formed by members of the meeting. Second is the need for esteem, or the desire to be respected by one's peers. When the need for belonging is met, attendees may seek independence by striving to be unique from other members. When feeling part of an organizational team, while also feeling unique, employees can strive to reach their full potential, which is considered to be the final stage of the hierarchy characterized by self-actualization (Stum, 2001).

Research involving Maslow's hierarchy of needs as a theoretical framework has revealed significant associations between leader behavior and attendee experiences of meetings. Malouff, et al. (2012) found evidence of positive associations between behaviors that are likely to meet attendee needs for belonging, esteem, and self-actualization, and higher attendee ratings of organizational meetings. When meeting leaders moved the meeting along, encouraged participation and decision making, and summarized the decisions made, attendees provided high ratings for productivity and for their satisfaction with the meeting (Malouff, et al., 2012). The correlational findings of this study provided a basis for a needs-based model of meeting leadership and future research into the relationships between these variables and the tenets of Maslow's needs theory.

The Role of Self-Determination Needs. The needs proposed by Maslow are hierarchical in nature because lower-level needs must be satisfied to a large extent before higher-level needs can become drives of behavior (Maslow, 1943). Some researchers recommend focusing on the satisfaction of needs that can be met simultaneously (Bettencourt & Sheldon, 2001; Gagné & Deci, 2005; Rasskazova, Ivanova, & Sheldon, 2016), such as the ones postulated by Self-Determination Theory (SDT; e.g. Deci & Ryan, 2000).

One of the needs described by SDT is for autonomy. When this need is satisfied, employees may experience a sense of freedom and control through their ability to make choices (Bettencourt & Sheldon, 2001; Brien, Forest, Mageau, Boudrias, Desrumaux, Brunet, & Morin, 2012). The satisfaction of the need for autonomy during meetings can lead to a sense of empowerment, whereby attendees feel a greater sense of meaning through their work (Allen, et al., 2016). Second is the need for competence. When this need is fulfilled, attendees feel accomplished (Baard, Deci, & Ryan, 2004). Third is the need for relatedness, or the need to belong to a group of trusted peers.

Bettencourt and Sheldon (2001) conducted five correlational studies and found that the need for autonomy and relatedness are complementary. Thus, feeling empowered at work is equally as important for an employee's psychological health as enjoying the company of co-workers. In addition, Baard, et al. (2004) found that satisfaction of the need for competence, in addition to autonomy and relatedness, may contribute to good psychological adjustment in social situations. Translated to the meeting room, the satisfaction of these three needs could aid the psychological well-being of individuals

at work.

Connections Between Leader Behavior and Need Satisfaction. Running needs-based meetings may help satisfy attendee's needs for belonging, esteem from others, and self-actualization, as well as increase their self-determined action by fulfilling their needs for autonomy, competence, and relatedness. In turn, the satisfaction of attendee needs may be a stepping stone in the direction of enhancing meetings. The Malouff, et al. (2012) study showed an association between meeting leader behavior likely to meet the needs for belonging, esteem, and self-actualization and subsequent ratings of meeting satisfaction and productivity. However, the study did not show that attendee needs were actually met during the meetings.

Present Research. Two studies drew on needs theories to examine the effect of meeting leader behavior on attendee perceptions of organizational meetings. Study 1 aimed to examine the effect of leader behavior on attendee ratings of actual meetings. Because other variables such as meeting length (Allen, Sands, Mueller, Frear, Mudd, & Rogelberg, 2012; Yoerger, Crowe, & Allen, 2015) may affect this relationship, we predicted that need satisfaction would be a partial mediator. We expected that (1) the use of needs-based meeting leader behaviors would increase attendee ratings of meeting satisfaction and productivity, and that (2) this relationship would be partially mediated by the satisfaction of attendee needs. Study 2 aimed to investigate whether a causal relationship exists between meeting leader behavior and attendee ratings of meeting satisfaction and productivity. We predicted that an experimental vignette of a hypothetical meeting scenario, with a leader exhibiting needs-focused behaviors would receive higher ratings for satisfaction with the meeting and for productivity than a control vignette without such leader behaviors.

We hypothesized the following:

Hypothesis 1. Meeting leader behavior that is attendee-needs-based will be positively associated with higher attendee ratings of satisfaction with the meeting and perceived productivity.

Hypothesis 2. Attendee need satisfaction – in terms of hierarchical and self-determination needs – will partially mediate the association between meeting leader behavior and attendee ratings of meeting satisfaction and productivity.

Hypothesis 3. An experimental vignette of a meeting leader exhibiting needs-based behaviors will receive higher projected ratings for meeting satisfaction and for meeting productivity than a control vignette in which the meeting leader did not display such behaviors.

Study 1

The aim of Study 1 was to investigate whether attendee need satisfaction partially mediates the expected association between needs-based meeting leader behavior and attendee ratings of satisfaction and productivity.

Method

Participants. A field sample of 110 employees from American organizations completed an online questionnaire using Qualtrics (2005) software. Respondents were recruited via Qualtrics Panels with the inclusion criterion being that they had attended a face-to-face meeting within three days of taking part in the study. The purpose of the meeting had to be discussion or decision making rather than training. Employees who stated that they had led the meeting were not included in the sample. All potential respondents were assured of anonymity. The sample consisted of 78 women and 32 men with an age range of 18 to 68 years (M=38.75, SD=13.40). Respondents attended a meeting on the day of the study (n=27), the day before (n=55), or two days prior to the study (n=28). Respondents were remunerated for their participation.

Measures.

Leader Behavior Observation Form – Condensed Version (LBOF; Malouff, et

al., 2012). The LBOF includes 19 expert-recommended meeting leader behaviors. Prior research has found evidence of validity in significant associations between meeting leader behavior and attendee ratings of organizational meetings (Douglass, et al., 2015), in addition to internal consistency (α=.77; Malouff, et al., 2012). In the present research, we considered the first two items: "Distribute meeting agenda" and "Distribute agenda in advance of meeting" too similar to be separate items and combined them to form the statement: "Distribute meeting agenda in advance of meeting." Additional sample items for leader behavior include: "Encourage participation," "compliment individual members," "paraphrase comments of members," and "smile." Respondents used the checklist to indicate whether meeting leaders exhibited needs-based behaviors when running the relevant meeting. If the behavior was not shown by meeting leaders, it received a score of 0 and a score of 1 if the behavior was present. Overall scores ranged from 0 to 18, and higher scores indicated greater needs-based meeting leadership. Internal consistency in the present sample was α=.81.

Basic Need Satisfaction Inventory – Modified Version (BNSI; Lester, 1990). The 50-item BNSI includes three subscales that measure the degree to which an individual's needs for belonging, esteem, and self-actualization are satisfied, in line with the hierarchy of needs theory. Saunders, Munro, and Bore (1998) found evidence of internal consistency (α=.88), while Lester (1990) found evidence of validity in correlations with related constructs on measures of personality. To suit the meeting context researched by the present study, we shortened the inventory to 15 items that relate to meetings (e.g. "I felt that my participation in the meeting had meaning"). Response options ranged from 1 (strongly disagree) to 6 (strongly agree). Internal consistency for the 15-item scale in the present sample was α=.74.

Basic Psychological Needs at Work Scale – Adapted Version (BPNWS; Brien, et al., 2012). The BPNWS measures the extent of satisfaction for the self-determination needs of autonomy, competence, and relatedness. Brien, et al. (2012) found evidence of validity in correlations with external validation measures such as well-being and intrinsic motivation, and subscale reliabilities were $\alpha > .86$. In the present study, we adapted items to suit the context of meetings. Because respondents rated statements in relation to their views on meetings that they attended prior to taking part in the study, we adjusted the wording of each item from present tense to past tense (e.g. "At my work, I feel free to execute my tasks in my own way" to "during the meeting, I felt free to execute my tasks in my own way.") As with Brien's scale, response options ranged from 1 (strongly disagree) to 6 (strongly agree). In the present sample, internal consistency for the overall scale was α=.94.

Organizational Meeting Satisfaction Scale (OMSS; Malouff, et al., 2012). The 5-item OMSS measures attitudes towards organizational meetings, with positively phased Likert-type statements that assess the extent to which attendees feel satisfied with meetings. Recent research has found evidence of construct validity in that scores on each measure were significantly associated with meeting behavior in response to leader training (Douglass, et al., 2015) in addition to internal reliability (α=.83, Douglass, et al., 2015; α=.96, Malouff, et al., 2012). Respondents in the present study used the OMSS to rate their

meeting satisfaction on a 7-point Likert scale, with response options ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item is, "I am satisfied with the meeting." Attendee scores were calculated as the mean scores across the items, with higher scores indicating greater satisfaction with the relevant meeting. In the present sample, internal consistency was α=.90.

Organizational Meeting Productivity Scale (OMPS; Douglass, et al., 2015). Previous use of the 5-item OMPS has shown that it is a reliable measure of meeting productivity from an attendee perspective (α=.90, Douglass, et al., 2015; α=.96, Malouff, et al., 2012). Evidence of construct validity was also found, as the scale was significantly correlated with ratings of meeting satisfaction (Malouff, et al., 2012), as well as with meeting behavior in response to leader training (Douglass, et al., 2015). Respondents used the OMPS to rate their agreement or disagreement, on a scale ranging from 1 (strongly disagree) to 7 (strongly agree), with statements related to the productivity of the meeting such as "the meeting time was well spent." Scores were calculated as mean scores, with higher values indicating a greater sense of productivity during the meeting. In the present sample, internal consistency was α=.93.

Procedure. Respondents indicated informed consent by clicking on the "agree" option of the online consent form provided and proceeded to complete the questionnaire. Respondents reflected on the most recent face-to-face meeting they attended and (1) indicated on a checklist the kinds of needs-based behaviors, out of a possible 18, shown by meeting leaders, (2) completed the need satisfaction measures, and (3) rated the meeting for satisfaction and productivity.

Results

Table 1 shows the mean scores, standard deviations, scale reliabilities, and inter-correlations of the main variables. In support of hypothesis 1, the use of needs-based behaviors by meeting leaders was significantly associated with higher attendee ratings of satisfaction with the meeting, $r = .47$, $p < .01$, and perceived productivity, $r = .49$, $p < .01$.

Table 1.
Descriptive statistics, scale reliability, and inter-correlations between the main variables (N = 110).

Scales	*M*	*SD*	α^b	*1*	*2*	*3*	*4*
1. LBOF[a]	14.27	3.51	.81	—			
2. BNSI	3.89	0.60	.74	.40**	—		
3. BPNWS	4.56	0.88	.94	.31**	.67**	—	
4. OMSS	5.14	1.28	.90	.47**	.57**	.71**	—
5. OMPS	5.37	1.35	.93	.49**	.53**	.72**	.81**

Note. [a]Dummy coded (Behavior not present = 0; Behavior present = 1).
[b]Cronbach's alpha measure of scale reliability.
**$p < .01$.

To test whether these associations were mediated by the satisfaction of attendee needs, we conducted regression-based mediation analyses (Model 4 in PROCESS v3; Hayes, 2017) using bootstrapping with 10,000 resamples. We considered indirect effects to be significant if the lower and upper bounds of the bootstrapped confidence intervals did not contain zero (Preacher & Hayes, 2004). The results indicated a significant indirect effect of leader behavior on meeting satisfaction through the fulfillment of attendees' hierarchical needs, β = .18, 95% CI [.08, .33]. See Figure 1.

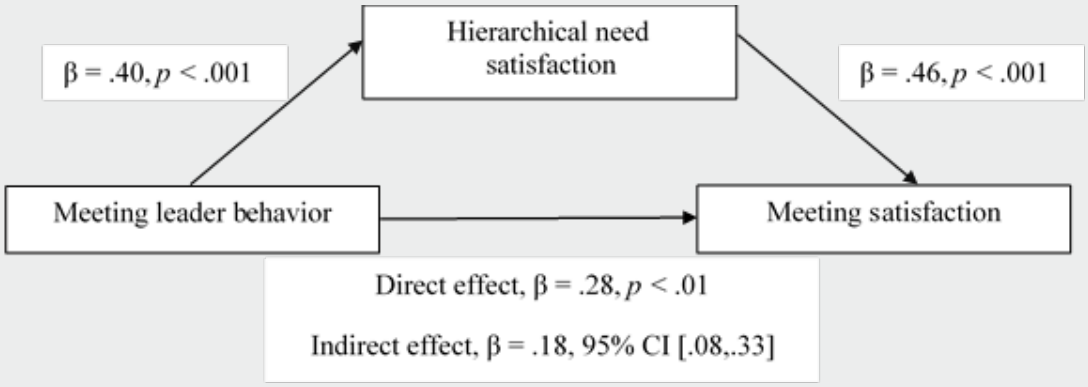

Figure 1. Model with standardized beta coefficients for meeting leader behavior as a predictor of meeting satisfaction, partially mediated by the satisfaction of attendee psychological needs for belonging, esteem from others, and self-actualization. The indirect effect is based on 10,000 bootstrapped resamples. N = 110.

The same pattern was shown through the satisfaction of attendees' self-determination needs, β = .20, 95% CI [.05, .41]. Supporting hypothesis 2, indirect effects of meeting leader behavior on meeting productivity through the satisfaction of the two sets of needs were also significant, β = .16, 95% CI [.07, .28], and β = .20, 95% CI [.05, .40], respectively.

Discussion of Study 1

The findings support the hypotheses that the satisfaction of self-determination needs (Deci & Ryan, 2000) and the drives of motivation described by hierarchical needs theory (Maslow, 1943), partially mediate the relationship between meeting leader behavior and attendee ratings of organizational meetings. This main finding is consistent with a model in which certain meeting leader behaviors contribute to the satisfaction of attendees' psychological needs, thereby producing higher attendee ratings of satisfaction and productivity. Hence, the findings provide support for a needs-based model of organizational leadership within the meeting context.

Results of the regression-based mediation analysis showed that the use of needs-based behaviors by meeting leaders led to attendees feeling greater satisfaction of their psychological needs, which in turn was associated with a positive trend in high ratings of satisfaction with the meeting and a sense of productivity during the meeting. These findings are consistent with the results of research conducted by Malouff, et al. (2012) in which significant associations were found between certain expert-recommended leader behaviors and attendee ratings of the

meeting for satisfaction and productivity. The present study adds to the work of Malouff and colleagues the finding, in a new study sample, that need satisfaction partially mediated these associations.

Study 2

The aim of Study 2 was to examine whether a causal relationship exists between meeting leader behaviors that tend to satisfy psychological needs and attendee ratings of satisfaction with meetings and meeting productivity.

Method

Participants. A field sample of 158 employees were recruited from organizations across the United States. Participants were assured of anonymity prior to responding to an online questionnaire. The sample consisted of 124 women, 32 men, and 2 nonbinary individuals, with an age range of 18 to 83 years (M=40.27, SD=16.83). On average, participants attended 8.44 meetings per year (SD=49.03). Of the total sample, 78 participants were randomly assigned by research software (Qualtrics, 2005) to the control group and 80 to the experimental group. Participants were remunerated upon completion of the study.

Measures.

Organizational Meeting Satisfaction Scale – Shortened Version (OMSS; Malouff, et al., 2012). A description of the OMSS can be found in Study 1. For the current study, instructions were modified to be appropriate for rating vignette scenarios, and participants were asked to indicate their level of agreement or disagreement with eight Likert-type statements. The fourth item of the OMSS, "I got what I wanted out of the meeting," did not suit the context of the transcripts and was removed. In the present sample, internal consistency for the 4-item scale was α=.91.

Organizational Meeting Productivity Scale – Condensed Version (OMPS; Douglass, et al., 2015). A description of the OMPS is also detailed in Study 1. The third item of the OMPS, "the meeting was a good use of my time," did not suit the context of the study and was removed. In the present study, participants used a shortened version of the OMPS to rate their anticipated meeting productivity on a 7-point Likert scale. In the present sample, internal consistency for the 4-item scale was α=.95.

Procedure. Participants indicated their consent by clicking on the "proceed" option of the online questionnaire. We used a between-participants design to randomly assign half of the sample to view either a control or experimental vignette. Both vignettes contained the same visual image of a small organizational group meeting with a male leader and three attendees, two of whom were female. The vignettes differed only in the transcript information used to describe the hypothetical meeting scenario for each condition. The experimental transcript described a meeting leader exhibiting needs-based behaviors, while the control transcript did not show such leader behaviors. After viewing the assigned vignette, participants responded to the questionnaire by rating their satisfaction with the meeting and perceived productivity of the meeting.

Results

We used an independent samples t-test to compare participant ratings for the control and experimental conditions. Results of the analyses using bootstrapping with 10,000 resamples indicated that on average participants who viewed the experimental vignette provided higher ratings for meeting satisfaction (M=5.00, SD=1.11) than those in the control group (M=3.77, SD=1.57). This mean difference, 1.22, 95% CI [1.65, 0.80], was significant $t(139) = 5.66$, $p < .001$, and represented a moderate effect, $d = 0.78$. Similar results were found for productivity ratings: The experimental vignette

received higher ratings for productivity (M=5.27, SD=1.28), than the control vignette (M=3.82, SD=1.66). This mean difference, 1.44, 95% CI [1.91, 0.98], was significant $t(145) = 6.10$, $p < .001$, and represented a large effect, $d = 0.87$.

Discussion of Study 2

This study investigated the impact meeting leaders have on attendee perceptions of organizational meetings. The results provided support for the predicted causal relationship between needs-based meeting leader behavior and attendee ratings of meeting satisfaction and productivity. The findings supported hypothesis 3, that meetings would be perceived by attendees as more satisfying and productive when the leader of the meeting exhibited behaviors that tend to satisfy the psychological needs of attendees. The results of the analyses were consistent with previous findings (Douglass, et al., 2015; Malouff, et al., 2012) that showed significant associations between leader behaviors and positive attendee perceptions of meetings. The present findings add to previous research by providing evidence for the causal role of meeting leader behavior.

General Discussion

The aim of this research was to investigate the effect of meeting leader behaviors that satisfy attendees' psychological needs on the meeting experience for those attending. The results of the studies showed that when meeting leaders exhibited needs-based behaviors, attendees felt greater fulfillment of their psychological needs which, in turn, was associated with higher ratings of meeting satisfaction and productivity.

The results of Study 1 supported the main hypothesis that attendee need satisfaction would partially mediate the relationship between leader behavior and attendee ratings. The results of Study 2, with its experimental design, supported the hypothesis that attendees would feel more satisfied with the meeting and view it as more productive when the meeting leader exhibited needs-based behavior. The findings of the two studies provide evidence that members of organizational meetings will tend to feel more satisfied with the meeting and consider the meeting more productive when the leader acts in ways that help satisfy their psychological needs.

The results provide support for the importance of hierarchical need theory (Maslow, 1943) and of Self-Determination Theory (SDT; Deci & Ryan, 2000), as applied to meetings. The main practical implication of the findings is that it is beneficial for meeting leaders to act in ways that help satisfy attendees' needs for belonging, esteem, and self-actualization, as well as their needs for autonomy, competence, and relatedness. These leader behaviors include starting meetings on time and encouraging attendees to participate.

The pattern of findings was similar for both sets of needs, perhaps because satisfaction of the two sets of needs were highly correlated with each other. The correlation may have resulted in part because of a similarity between the theoretical constructs, e.g., the need for belonging described by Maslow (1943) and the SDT need for relatedness.

Limitations and Recommendations for Future Research. The research methods have some limitations. First was the use of self-report measures. Response biases can sometimes inflate correlations when the same individuals complete different self-report measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Hence, the associations found may be somewhat inflated. On the other hand, psychological measurement always involves error, which tends to reduce the size of true correlations (Schmidt & Hunter, 1996), perhaps balancing the effects of response biases (Evans & Mathur, 2005; Van Selm & Jankowski, 2006). Second, while the correlational results are consistent with a model in which certain meeting leader behaviors result in need satisfaction, thereby producing high ratings of satisfaction and productivity, they do

not show causation. However, the experimental method used in the second study may help in making the jump from association to causation (Spirtes, Glymour, & Scheines, 1993) in terms of the relationship between leader behavior and attendee ratings of meeting satisfaction and productivity. Third, as the needs measures were adapted to suit the context of meetings as assessed in this research, prior evidence of validity might not apply. However, modifications made to the original items were small. Fourth, the experimental study used an analogue design in which there was no actual in-person meeting. Hence, the findings of the study might not generalize to actual meetings. Nevertheless, Douglass et al. (2015) found evidence of positive effects in a small-N study of meeting leaders. Fifth, the current study results might not generalize to cultures much different from that of the United States where the studies were conducted.

Future research could investigate whether the needs-based model applies in specific cultures and in specific types of organizations. Future studies could also examine which needs are most valuable to satisfy at meetings and which leader behaviors work best at satisfying those needs. Further research could assess whether there are any special costs to satisfying the needs of meeting attendees. Finally, it could be that factors other than meeting leader behavior affect the need satisfaction of attendees. These other factors could include the behavior of other attendees and meeting characteristics, such as meeting length (Allen, et al., 2012; Yoerger, et al., 2015). Researchers could explore these possibilities, initially in correlational studies.

Conclusion

The present research suggests that the satisfaction of employees' psychological needs at meetings is associated with important aspects of organizational work. For example, meeting leader behaviors that tend to satisfy the psychological needs of attendees for belonging, esteem, and self-actualization, in addition to autonomy, competence and relatedness, serve a causal role in the way a meeting is perceived by those attending. These findings support a needs-based model of organizational leadership in the context of meetings, and have implications for organizational practice, as well as future research with a focus on developing methods to enhance meetings.

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