

## **Understanding Resistance to Change as Loss Aversion and Prospect Theory**

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### **Abstract**

*Individuals within organizations tend to resist change. This behavior is critical when leaders attempt to move groups and organizations through strategic change. A new way to understand this resistance is through Prospect Theory and the idea of loss aversion. Loss aversion asserts that individuals will resist changes to the status quo if the current situation is satisfactory to them. A sample of respondents affirmed the predictions of Prospect Theory in this regard. Individuals who perceived that the current status served them well and met their current needs were less likely to embrace or support proposed changes to the status quo. This perception demonstrates risk aversion to potential losses. Conversely, individuals who perceived that the current state did not serve them well or meet their current needs and interests were more likely to embrace and support proposed changes to the status quo demonstrating risk seeking in the face of potential gains. The results were applied to organizational leadership and management as well as to changes in policy in both the public and private sector.*

**Keywords:** Prospect Theory, Change, Resistance to Change, Loss Aversion

### **Introduction**

A significant literature exists on the topic of change, change management and leading change. In the area of leadership and organizational change, Lewin (1947) laid the foundation with his three-stage model: unfreezing, movement, and refreezing. Kotter (1996) provided a more recent variation of the stage theory of leading change. He proposed eight stages including categories that have become entire literatures within the change leadership field like creating a vision, empowering others, and institutionalizing the change. The intuitive nature of the stage theories led to significant research on the process of change and change leadership. For example, Cummings and Worley (2003) demonstrated that unfreezing required that the people of the organization needed to be convinced against the status quo. Because organizations are often heavily invested in the legacy assets of the status quo, leadership to initiate and perpetuate change initiatives must expend considerable time and effort. Hussain et al (2016) proposed loops of change around leadership, management and organization.

Another aspect of leadership and change that built on the work of Lewin and Kotter was in the area of leadership style and its impact on the willingness of followers to embrace organizational change. Bass (1985) was one of the early proponents of transformational leadership and how leader characteristics can motivate followers to embrace change. Holten and Brenner (2015) provide a recent addition to the literature on leadership style and the process of change. In their longitudinal survey, they provide evidence that leaders engaging managers produce a positive effect on followers' appraisal of proposed change. These results reinforce the idea that organizational change is a dynamic interaction between leaders and followers.

Moving from leading change to organizational change, Beer and Nohria (2000) discussed the two major theories of organizational change, that driven by economic consideration (Theory E) and that driven by organizational capability (Theory O). These approaches to change are often unsuccessful and create significant tension within the organization due to resistance to change.

This resistance has been analyzed by Kegan and Lahey (2001) using the idea of competing commitment. People do not change because they are more committed to aspects of the status quo. Unfortunately, the primary theoretical foundation is behavioral involving conditional and unconditional reinforces (see Vargo and Ringdahl, 2015) which has limited use for leaders, managers and coaches.

A more theoretically grounded approach to resistance to change was proposed by Martin (2017) in her study of resistance to telework using Prospect Theory (Kahneman and Tversky, 1979). Specifically, within Prospect Theory, the concept of loss aversion motivates people to place more weight on the prospects of certain or probable loss when evaluating a decision making them risk averse when facing losses (Kahneman, Knetsch, and Thaler, 1991). This leads to the endowment effect in which things that have high utility to an individual become more valuable when they are possessed or owned. Then, the price for giving up these possessions is higher than the cost one would pay to acquire them.

Prospect Theory describes the behavior wherein individuals are risk averse to the prospects of losing something that they have. The higher the utility of that which is possessed, the more risk averse they become to the prospects of losing it. We tend to hang on to things that we possess and have high utility; we will resist the prospect of losing these possessed things. Conversely, Prospect Theory describes behavior that is more risk tolerant when facing the prospect of gains. If one does not have something that has high utility, they tend to take greater risks to gain or possess it. We tend to seek high utility things that we do not possess; we take greater chances to gain something of high utility that we do not already have.

Prospect Theory is well documented and is a descriptive theory of how people actually behave. Its application to economics was a significant contribution to the science of economic and is a key component of behavioral economics (see Thaler, 1980). Daniel Kahneman was awarded the Nobel Prize in Economic Sciences in 2002 for his development of Prospect Theory. We think Prospect Theory provides a theoretically rigorous and empirically documented explanation for resistance to change in the areas of organizational and public policy as well as personal lifestyle changes.

If change is proposed to an organizational or public policy that currently has high utility for an individual, they will resist changes to that policy or operating scheme. High utility in this instance would be a policy that has a high impact on the individual and is serving their needs well. The status quo is working so let us keep it. Prospect Theory predicts that an individual in this state of high impact and high alignment with current values and needs would resist changes to the policy reasoning that any change would be for the worse. On the other hand, if change is proposed to a policy that currently has low utility for an individual, high impact but low alignment with current needs and values, an individual would be more risk tolerant reasoning that any change would likely be an improvement to the current situation. The status quo is not working so let us change it.

The purpose of this research is to determine whether individuals confronted with change display preferences consistent with Prospect Theory. We predict that when confronted with a policy that has high impact and high utility, individuals will judge that proposed changes will likely be detrimental to them and to other people. Furthermore, when confronted with a policy that has high impact and low utility, individuals will judge that proposed changes will likely be beneficial to them and to other people.

The specific hypotheses are as follows:

Hypothesis 1

The rated benefit of the impending change will be greater for the high impact, low alignment policy than for the high impact, high alignment policy.

Hypothesis 2

The rated overall benefit of the impending change will be greater for the high impact, low alignment policy than for the high impact, high alignment policy.

Hypothesis 3

The rated support of the procedure used in the impending change will be greater for the high impact, low alignment policy than for the high impact, high alignment policy.

Hypothesis 4

The rated support for the impending change will be greater for the high impact, low alignment policy than for the high impact, high alignment policy.

## Methods

### Participants

Interviews were completed with 89 individuals. A snowball sampling technique was employed beginning with 30 undergraduate students who each completed the interview. Each of these students found two other willing participants to participate in the interview process. Half of the participants reported their gender as male and half reported their gender as female. One participant did not report their gender. Table 1 displays the breakdown on age and Table 2 displays the breakdown on income.

**Table 1: Breakdown of Participant Age**

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	41	46.1	46.1	46.1
	26-35	15	16.9	16.9	62.9
	36-45	6	6.7	6.7	69.7
	46-55	10	11.2	11.2	80.9
	56-65	13	14.6	14.6	95.5
	Over 65	3	3.4	3.4	98.9
	Missing	1	1.1	1.1	100.0
Total		89	100.0	100.0	

**Table 2: Breakdown of Participant Income**

Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under \$20,000	38	42.7	42.7	42.7
	\$20,000-\$40,000	18	20.2	20.2	62.9
	\$41,000-\$60,000	8	9.0	9.0	71.9
	\$61,000-\$100,000	7	7.9	7.9	79.8
	\$101,000-\$150,000	7	7.9	7.9	87.6
	Over \$150,000	10	11.2	11.2	98.9
	Missing	1	1.1	1.1	100.0
Total		89	100.0	100.0	

### Interview Instrument and Procedure

A structured interview technique was employed using a survey instrument that guided the interview process. The survey was explained to the students and they completed it under the supervision of the researcher. Then, instructions were given on how to administer the survey instrument to others. All questions were answered until each student understood the survey and the procedure for collecting the data. Additionally, the random nature of the subsequently selected participants was reinforced. Our procedure was similar to the general procedure used by Kahneman and Tversky (1979) wherein participants were led through a series of thought experiments involving their preferences. These procedures are sometimes called cognitive interviews (see Dillman, 2000) or depth interviews (see Malhotra, 2010) and are often used to gather qualitative along with quantitative data.

The purpose of the first part of the interview was to identify areas of public policy that had a high impact on the participant. High impact was defined as having considerable influence on the participant's life and wellbeing economically, socially, physically or in some other manner identified by the participant. This was accomplished by providing a series of public policy arenas followed by two Likert-type scales.

In the first scale, participants use a one to ten scale to identify the degree to which that particular area of policy affected their lives. The second scale used a similar one to ten scale to identify the extent to which the current policy aligned with their interests. The first scale had the end points identified as: "very low impact" and "very high impact". The second scale for each area of public policy had their end points identified as: "Not aligned with my interests" and "Aligned very well with my interests". Public policy areas that were addressed included tax policy, healthcare, local planning, financial aid, food production, environmental policy, animal rights, immigration, housing, banking, investment, business formation, criminal justice, and social welfare.

Respondents could also identify additional areas of interest or concern. This initial stage of the interview was designed to identify areas of public policy that had a high impact on participants. Once high impact areas of public policy were identified, the second stage of the interview was to identify one area of policy that was very well aligned with the participant's interests and values. This high alignment was defined as being congruent with the participant's political or social philosophy or that the current policy benefited them economically, socially, physically, or psychologically. The goal was for each participant to identify a high impact, high alignment area of public policy; a policy that highly affected them in a positive manner.

The same process was used to identify an area of policy that had high impact on the participants but low alignment with the participant's interests and values. This low alignment was defined as being incongruent with the participant's political or social philosophy or that the current policy worked to their detriment economically, socially, physically, or psychologically. The goal was for each participant to identify a high impact, low alignment area of public policy; a policy that highly affected them in a negative manner. The goal at the end of this part of the interview was to have participants thinking about two areas of public policy that highly affected them; one that affected them positively and one that affected them negatively. Each participant may have ended up with different areas of public policy in mind but the goal was to have them thinking about policies that really affected them in a positive and negative manner.

The next stage of the interview introduced the prospect of change. Depending on the areas of policy that were identified by each participant, they were told that the policy makers were embarking on a process to change the system. The exact nature of the change was not specified. The goal here was to have participants thinking about these high impact public policy areas being changed by the relevant policy makers. Then participants were asked four questions about the possible impact of the impending change on them.

The first question was the likelihood that the change would benefit them personally. Responses were recorded on a 10-point Likert scale with 1 being that it would be highly unlikely that the change would be better for them personally and 10 being that it would be highly likely that the change would be better for them personally. The second question asked if the impending change would be better overall for people in general. A similar 10-point scale was employed with 1 being highly unlikely that the change would be better overall for people in general and 10 being highly likely that the change would be better overall for people in general. The third question asked about the likelihood that they personally would support the procedure used in changing the area of public policy and the fourth question asked about the likelihood that they would support the specific change that resulted from the process. Both of these questions used a similarly worded 10-point scale with 1 being highly unlikely to support the process or the specific change and 10 being highly likely that they would support the process or the specific change. This part of the interview attempted to assess and record the degree to which they support the change and change process or resisted the change and process.

The final part of the interview collected information on gender, age, and income as well as information on their overall attitude toward change and their level of activity in public policy. The questions on attitude toward change and level of activity in public policy were scored on a 10-point scale. For attitude toward change participants were asked "How much do you like change?" and their responses were recorded on the 10-point scale with 1 being "I do not like changes" and 10 being "I really like changes". The responses on involvement in public policy were recorded on a 10-point scale with 1 being "I'm not involved at all in public policy" and 10 being "I am highly involved in public policy". The actual nature of their public policy involvement was also recorded.

## **Results**

To test the hypotheses that participants would judge that impending change in an area of policy that had high impact and high alignment would work to their detriment while change in an area of policy that had high impact and low alignment would work to their advantage, a series of paired t-tests were conducted on the four questions concerning change. For each question, the specific alternate hypothesis was that participants would rate the impending change of the high impact, low alignment case as more beneficial than the high impact, high alignment case. For each of the four questions, the null hypothesis was rejected in favour of the alternate hypothesis.

For the first hypothesis, when asked if the impending change would be better for them personally, respondents rated the likelihood for the high impact, low alignment scenario over two points (mean difference = 2.146) on the scale as more likely to be better than for the high impact, low alignment scenario ( $t_{(88)} = 5.365, p < .001$ ).

Table 3 displays the frequency distribution of the differences between the high impact, low alignment policy and the high impact, high alignment policy. It is evident that 92.1 percent of the respondents had a positive difference. This means they rated the likelihood that the impending change would be better for them personally for the low alignment policy higher than for the high alignment policy. For the second hypothesis, when asked if the impending change would be better for people overall, respondents rated the likelihood for the high impact, low alignment scenario almost two points (mean difference = 1.865) on the scale as more likely to be better than for the high impact, low alignment scenario ( $t_{(88)} = 4.706$ ,  $p < .001$ ).

**Table 3: Difference in Rated Personal Benefit Between Low and High Alignment Policies**

Difference in Rated Personal Benefit Between Low and High Alignment Policies					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-9.00	1	1.1	1.1	1.1
	-6.00	1	1.1	1.1	2.2
	-5.00	2	2.2	2.2	4.5
	-4.00	4	4.5	4.5	9.0
	-3.00	4	4.5	4.5	13.5
	-2.00	5	5.6	5.6	19.1
	-1.00	2	2.2	2.2	21.3
	.00	7	7.9	7.9	29.2
	1.00	14	15.7	15.7	44.9
	2.00	8	9.0	9.0	53.9
	3.00	5	5.6	5.6	59.6
	4.00	6	6.7	6.7	66.3
	5.00	6	6.7	6.7	73.0
	6.00	13	14.6	14.6	87.6
	7.00	9	10.1	10.1	97.8
8.00	2	2.2	2.2	100.0	
Total		89	100.0	100.0	

Table 4 displays the frequency distribution of the differences between the high impact, low alignment policy and the high impact, high alignment policy for overall benefit. Table 4 shows that 87.6 percent of the respondents had a positive difference. This means they rated the likelihood that the impending change would be better for people overall for the low alignment policy higher than for the high alignment policy.

For the third hypothesis, when asked if they would support the procedures employed for the impending change, respondents rated the likelihood of their support for the high impact, low alignment scenario almost two points (mean difference = 1.742) on the scale as more likely to support the process than for the high impact, low alignment scenario ( $t_{(88)} = 4.447$ ,  $p < .001$ ). Table 5 displays the frequency distribution of the differences between the high impact, low alignment policy and the high impact, high alignment policy for likelihood of support for the process used for the impending change. It can be seen that 82 percent of the respondents had a positive difference. This means they rated the likelihood that they would support the process for the impending change for the low alignment policy higher than for the high alignment policy.

**Table 4: Differences in Rated Overall Benefit Between Low and High Alignment Policies**

<b>Difference in Rated Overall Benefit Between Low and High Alignment Policies</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-9.00	1	1.1	1.1	1.1
	-7.00	2	2.2	2.2	3.4
	-5.00	1	1.1	1.1	4.5
	-4.00	2	2.2	2.2	6.7
	-3.00	2	2.2	2.2	9.0
	-2.00	11	12.4	12.4	21.3
	-1.00	4	4.5	4.5	25.8
	.00	11	12.4	12.4	38.2
	1.00	6	6.7	6.7	44.9
	2.00	10	11.2	11.2	56.2
	3.00	6	6.7	6.7	62.9
	4.00	5	5.6	5.6	68.5
	5.00	8	9.0	9.0	77.5
	6.00	13	14.6	14.6	92.1
	7.00	5	5.6	5.6	97.8
	8.00	1	1.1	1.1	98.9
	9.00	1	1.1	1.1	100.0
	Total		89	100.0	100.0

For the fourth hypothesis, when asked if they would support the specifics of the impending change, respondents rated the likelihood of their support for the high impact, low alignment scenario two points (mean difference = 2.034) on the scale as more likely to support the specific changes than for the high impact, low alignment scenario ( $t_{(88)} = 5.003, p < .001$ ). Table 6 displays the frequency distribution of the differences between the high impact, low alignment policy and the high impact, high alignment policy for likelihood of support for the specifics of the impending change. It can be seen that 87.6 percent of the respondents had a positive difference. This means they rated the likelihood that they would support the specifics of the impending change for the low alignment policy higher than for the high alignment policy.

**Table 5: Difference in Rated Process Support between Low and High Alignment**

<b>Difference in Rated Process Support between Low and High Alignment</b>						
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	-6.00	2	2.2	2.2	2.2	
	-5.00	3	3.4	3.4	5.6	
	-4.00	3	3.4	3.4	9.0	
	-3.00	3	3.4	3.4	12.4	
	-2.00	6	6.7	6.7	19.1	
	-1.00	5	5.6	5.6	24.7	
	.00	16	18.0	18.0	42.7	
	1.00	8	9.0	9.0	51.7	
	2.00	6	6.7	6.7	58.4	
	3.00	8	9.0	9.0	67.4	
	4.00	4	4.5	4.5	71.9	
	5.00	5	5.6	5.6	77.5	
	6.00	10	11.2	11.2	88.8	
	7.00	6	6.7	6.7	95.5	
	8.00	3	3.4	3.4	98.9	
	9.00	1	1.1	1.1	100.0	
	Total		89	100.0	100.0	

**Table 6: Difference in Rated Specific Support between Low and High Alignment Policies**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-6.00	1	1.1	1.1	1.1
	-5.00	1	1.1	1.1	2.2
	-4.00	7	7.9	7.9	10.1
	-3.00	3	3.4	3.4	13.5
	-2.00	8	9.0	9.0	22.5
	-1.00	4	4.5	4.5	27.0
	.00	11	12.4	12.4	39.3
	1.00	6	6.7	6.7	46.1
	2.00	7	7.9	7.9	53.9
	3.00	5	5.6	5.6	59.6
	4.00	6	6.7	6.7	66.3
	5.00	9	10.1	10.1	76.4
	6.00	6	6.7	6.7	83.1
	7.00	11	12.4	12.4	95.5
	8.00	4	4.5	4.5	100.0
Total	89	100.0	100.0		

### Discussion

These results demonstrate that resistance to change is explained within the theoretical light of Prospect Theory. Participants in this research were more risk averse at the prospect of change in areas of policy that held high utility for them. The status quo was working for them and proposed changes were judged more likely to be detrimental. When participants contemplated the prospects of change in an area of policy that had lower utility for them, they judged that the change would more likely be beneficial. This pattern is exactly what Prospect Theory predicts: risk averse in regards to potential loss and risk seeking in regards to potential gains.

Moreover, they judged the impending change to be detrimental for people in general if the policy held high utility for them personally and judged the impending change to be beneficial for people in general if the current policy had low utility for them personally. Our participants generalized their own prospects to the larger population. Additionally, for the high alignment policy, participants reported they would be less likely to support the procedure used to develop and implement the impending change and that they would be less likely to support the specific changes. For the low alignment policy, participants reported they would be more likely to support the procedure used to develop and implement the change and that they would be more likely to support the specific changes.

The insights gained from understanding resistance to change in the light of Prospect Theory can be applied to many areas including organizational leadership and change. Lewin (1947) understood that change begins with unfreezing people from the status quo. In the parlance of Prospect Theory, this would mean helping people understand the lack of utility in the status quo so they could begin to view the change in terms of gains rather than losses. This is part of Kotter's (1996) eight-step plan for organizational change. His first step is for leaders to develop a sense of urgency. The insight gained through Prospect Theory suggests urgency would be to point out the lack of utility in the status quo and to view change in terms of gains of utility rather than losses. Roger's (2003) work on diffusion of innovation also benefits from the perspective of Prospect Theory. Early adopters are individuals who immediately see the innovation in terms of gains in utility and laggards persist in seeing the innovation in terms of loss of the status quo. More rapid acceptance of innovation would occur if the benefits of innovation could be explained in terms of gains in functionality and utility.

Individual change is another application for these results. Prospect Theory would hypothesize that individuals resist personal change like changing diet, beginning exercise programs, or cessation of smoking because they view change in terms of loss. Change-Oriented Feedback (Carpentier and Mageau, 2016, 2014, 2013) reinforces athletes' motivation by offering feedback in terms of gains rather than losses. Coaching of athletes is successful when the discipline of their workouts and practices are presented as opportunities for gain which are more readily embraced rather in terms of lost time in other activities which would be resisted. The ability to investigate and embrace change is a critical factor in coaching and exercise science (Smith and Walls, 2016).

This study provides initial support for viewing resistance to change in terms of Prospect Theory. Future research must focus on more specific instances and applications. Developing a sample of individuals who view specific changes as high utility or high alignment and contrasting them to individuals who view the same change as low utility or low alignment. Such a study would provide more compelling evidence of Prospect Theory's role in resistance to change. Additionally, comparing a group of participants who naturally view change in terms of gains with a group who naturally view change in terms of loss would provide insight into the adoption of innovation and the process of organizational change. For now, viewing change as gains and losses of utility as demonstrated by Prospect Theory may prove to be a valuable addition to our understanding.\

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