

**How Do Revolutions Affect Satisfaction with Government Performance?
Evidence from the Arab Spring**

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Introduction

In 2010, Mohamed Bouazizi set himself on fire in a demonstration against the repression of the Tunisian government. Similar to the storming of the Bastille or the “shot heard round the world,” Bouazizi’s self-immolation was the catalyst for Tunisia’s revolution and, ultimately, for the entire Arab Spring. The flames of revolution started in Tunisia, spread throughout the country, and eventually overtook the entire Arab world. Many citizens of Arab countries took to the streets in hopes of soliciting change. Protests, demonstrations, strikes, and even wars broke out across the entire region. The Arab world was dissatisfied, and the people saw the opportunity for reform.

Though the outcomes varied, each country was impacted in some way or another by the Arab Spring. Some countries experienced full-blown revolutions which resulted in major governmental changes. Other countries did not see such major changes, despite large protests. The question of interest is whether or not it was successful. Did the Arab Spring lead to the type of change that the citizens were inspired to fight for? Did it matter if there was a revolution or not? Though the repercussions of the events are still playing out, it is possible to begin to find the answers to these questions.

In this paper, I focus on how the Arab Spring revolutions affected citizens’ satisfaction with government performance. To be pushed to the point of revolution, many of the citizens of these Arab countries were clearly dissatisfied with the status quo. After a revolution, were the successful countries more satisfied than those that did not succeed in overthrowing their governments? The purpose of this paper is to investigate what factors influence satisfaction with

government performance in the Arab World. Specifically, I will focus on if, and how, revolutions impact these satisfaction levels.

To answer these questions, I used data from nine Arab countries that each followed different trajectories during and after the Arab Spring. I compared countries that had revolutions to ones that did not in order to explore two contrasting theories of satisfaction. According to one theory, revolutions decrease satisfaction with government performance because of instability and unmet expectations. According to the other theory, satisfaction levels increase after revolution due to positive perceptions and a sense of efficacy. After conducting an observational data analysis, I determined that Arab Uprising revolutions had a significant positive impact on satisfaction levels immediately following the event. Also, revolutions increased the probability of very high levels of satisfaction, despite the fact that overall satisfaction levels of countries that had revolutions were not significantly different than those that did not. I therefore argue that revolutions lead to immediate increases in satisfaction because they change citizen's perceptions of their government. After a revolution, citizens perceive their government to be less corrupt and more representative. Thus, they are more likely to be very satisfied. I argue that this is simply a "honeymoon" phase, and that satisfaction levels are likely to decrease over time.

I will start by reviewing the context of this analysis. The data that I use is from the Carnegie Middle East Governance and Islam dataset, and I specifically focus on data collected during the years 2013-2014. Using this data, I will present the results of three ordered logistic regression models and discuss the findings. To further investigate the relationship between government satisfaction and revolution, I will compare Tunisia, Morocco and Lebanon in 2013. I finish this study by presenting conclusions and implications from the research.

Background and Context

After the initial spark of revolution and reform ignited in Tunisia, flames rapidly spread throughout the rest of the Arab World. The image and story of Bouazizi's self-immolation did not only inspire Tunisians; citizens in many different countries came together and took a stand against their governments. Every country in the region was affected in some way or another by the movement. Libya, Egypt, Syria, Bahrain, and Yemen followed Tunisia's example by starting major revolts. Each of these countries experienced major protests, civil unrest, and some are still experiencing civil war. Though other countries did not revolt to the same extent, many experienced large-scale protests, strikes, and demonstrations. Experts did not anticipate such an occurrence; it completely took the world by surprise (Jones 2012). Many watched the events play out with curiosity, questioning why it started and wondering how it would end.

The causes of this movement are up for debate, but some stories effectively explain the underlying economic and political roots of the revolt. Due to stagnation and crisis, the economic situation of the typical employee in the Arab World was less than ideal before the uprisings (Geling 2012, 22). Economic opportunities were scarce, leading many to become dissatisfied with their circumstances and the prospects for their future (Campante and Chor 2012). This dissatisfaction occurred mostly among the younger generation, who were the leaders of the revolution (Geling 2012, 23). Along with economic dissatisfaction and lack of opportunity, causes also included high inflation, political corruption, and lack of democracy (Geling 2012, 22). Many also argue that social media contributed to the outbreak of the revolution (Howard and Hussein 2015; Howard et al. 2011). Dissatisfied Arab youth were able to network and spread ideas in ways that were not previously possible to them under strict, authoritarian regimes. Revolutionary ideas and support for democracy spread like wildfire across social media

platforms, allowing revolutionary groups to coordinate their efforts and mobilize different types of people. Social media was the vehicle that enabled dissatisfied Arabs to organize, rebel, and demand change. Each uprising stemmed from deeply rooted dissatisfaction with the political and economic situation.

The citizens in each country might have revolted for similar reasons, but the Arab Spring took each one in very different directions. Though every uprising presents a unique story, there were essentially three main categories of outcomes. These are: ongoing civil war, major change in government, and no change in government. Fundamentally, citizens either succeeded in changing the government or they did not. Different revolutionary outcomes most likely correspond to differing levels of satisfaction with the government.

Tunisia, Egypt, and Kuwait all experienced major changes in government as a result of the Arab Spring. Tunisia has been the most successful of these countries. After the initial protests in 2011, Tunisian citizens ousted dictator Ben Ali, adopted a new constitution, and elected a parliament. Today, Tunisia remains relatively free and peaceful (Freedom House 2016). At first, Egypt also enjoyed a similar level of success. After massive protests and unrest, the dictator Hosni Mubarak was overthrown. In the year after this initial success, a new president, Morsi, was elected from the Muslim Brotherhood Islamist party. However, following conflict with more secular groups, Morsi was ousted in a coup d'état in 2013. Though Egypt now has a relatively stable situation, there are still instances of political tension and civil unrest. Kuwait also experienced a major change in government. After large scale protests in 2011, the prime minister of Kuwait stepped down. Following this, the country held elections. Though this is not the same as overthrowing the government, the citizens did succeed in eliciting an important governmental change. However, since this time there has been a lot of political opposition, unfair elections, and

unrest. Though each of these three countries experienced a major change in government, they each followed a different path and are facing unique problems. The data used for this study was collected in 2013, two years after the initial Arab Uprisings. Thus, the data captures the levels of satisfaction in these countries immediately following any initial changes. For Egypt, the data was collected before Morsi was ousted. Thus, the levels of satisfaction that correspond with the present situation remain unknown.

Morocco, Lebanon, Sudan and Algeria did not experience any major change in government. Though citizens followed the example of Tunisia, there were no conflicts or coup d'états similar to the countries discussed above. Each of these countries experienced only protests, strikes, and demonstrations. In Morocco, King Mohammed VI granted some concessions but maintains monarchical power. After the concessions, protests stopped. Algeria has also experienced major protests. Though the government succumbed to lifting the state of emergency, it maintains ultimate power despite continued protest. In Lebanon, there were also some protests, but there was nothing similar to the events that took place in other Arab Spring countries. Lebanon, therefore, did not experience any major change from the Arab Spring.

For Yemen and Iraq, the Arab Spring led to civil war. Like those that experienced major government change, Yemen's government was overthrown. However, in the years after Saleh stepped down, conflict arose between the legitimate government and the Houthis, a group based in northern Yemen. Today, Yemen is still experiencing the devastating effects of civil war, and the country is on the edge of total state failure (Ghanem 2016). Similarly, there were major protests in Iraq after the onset of the Arab Spring in Tunisia and the pulling out of US troops. Iraq was in a state of instability and broke into civil war in 2014. Since then, ISIS has gained control of different parts of the country and Iraq is also experiencing major devastation. The civil

war and the rise of ISIS is likely not a result of the Arab Spring protests, though Iraq is still suffering.

Though each country follows a different post-revolution trajectory, it is certain that these outcomes have started a series of changes that will forever affect the Middle East (Jones 2012). As the stories unfold, it begs the question as to how different outcomes affect the people's satisfaction with government performance. Are people more satisfied in countries where the government was overthrown than in countries where it remains the same? I am assuming that civil war leads to unhappiness and inevitable dissatisfaction with the government. Therefore, I will not be heavily focusing on countries experiencing civil war under the assumption that they are the least satisfied of all the different outcomes. However, as mentioned earlier, the data that I will use to answer these questions was collected in the year 2013. In the case of Kuwait, it was collected in 2014. It is essential to consider that the stories of many of these countries drastically changed between 2013 and the present time. Therefore, I will be examining how the immediate circumstances preceding the Arab uprisings affected satisfaction levels. These levels will inevitably change as the stories unfold and the trajectories shift course.

Theoretical Framework

Though I am not offering up my own theory of why these revolutions began, it is important to understand theories of revolution to better answer the question of how revolutions affect people. Widespread dissatisfaction is a major contributor to revolutionary outbreak. Davies argues that revolutions occur as a result of unfulfilled, rising expectations. When citizens see hope of a brighter future but cannot reach it, they become frustrated and dissatisfied. This frustration incites aggression, which eventually leads to revolution (Sanderson 2016, 63).

However, Skocpol argues that internal economic difficulties and inefficiencies will eventually lead to a revolution, discounting the idea that dissatisfaction alone is enough to cause a revolution (Sanderson 2016, 75). So, if dissatisfaction is a major causal factor for revolutions, do revolutions then lead to higher levels of satisfaction? After revolting, protesting, and overthrowing a government, are people more satisfied with their new government? These theoretical questions are particularly pertinent in light of the Arab Spring because many countries experienced widespread dissatisfaction, but not every country actually engaged in a full-scale revolution. For the purposes of this study, I will consider the Arab Spring uprisings which resulted in governmental changes, namely Tunisia, Egypt, Kuwait and Yemen, to be revolutions. Though the events in Kuwait aren't traditionally thought of as a revolution, they did experience significant governmental change. I will therefore group them with the other countries that experienced more traditional revolutions.

To answer the question of whether or not overthrowing a government leads to higher satisfaction, it is first important to understand the factors that affect government satisfaction. Political systems, institutions, and beliefs play a key role in determining government satisfaction. Anderson and Guillory argue that satisfaction with the government is a combination of individual and country level characteristics, most notably a country's political institutions. They argue that demographic and attitudinal factors play a large role in determining dissatisfaction (1997, 77). They find evidence to support the fact that the type of political system in which a citizen resides is significantly correlated with satisfaction levels (1997, 77). Aarts and Thomassen similarly theorize that institutions play a large role in predicting trust of government and democracy. They also argue that perceptions of how well these institutions function might play an even more significant role in determining overall trust (2007). In seeking to explain why

trust and satisfaction levels decline, Dalton theorizes that social forces affect trust. He finds that trust levels decrease due to changing expectations, rather than changes or failure of government institutions (2005, 133). Kornberg and Clarke find that citizens are most satisfied when their beliefs about government match up with political realities (1994). Though all of these studies focus mostly on developed, Western democracies, the theories are applicable to the Middle East. In building upon this research, I will use both individual and country level variables of interest to see how government institutions and corresponding perceptions and expectations affect satisfaction. I will see if previous findings correspond to the Middle East, or if it is only specific to satisfaction with democracy.

Government satisfaction is also linked to the economy. Some authors argue that citizen trust and satisfaction with government services is related to their own personal economic circumstances as well as country level circumstances. Aarts and Thomassen posit that people are less satisfied with newer, less established democracies because their economic performance is poor (2007). In a comparison of East and West Germany, Cusack found that economic performance was one of the most significant determinants of government satisfaction (1999, 641). Income inequality also accurately predicts how much a citizen trusts the government (Bjornskov 2007, 1). Though trust is very different than satisfaction, some of the same principles might apply. It is logical that a citizen would be less satisfied with government performance in times of economic hardship. Economic performance is clearly a very important determinant element of satisfaction.

Though there has been a lot of research regarding satisfaction and trust levels in democracies, little research has been done regarding the Middle East or other developing regions. Similarly, little research has been done specifically regarding how revolutions affect

satisfaction with the government. Most of the Arab Spring revolutions led to political and economic instability, which have direct effects on satisfaction. Unlike many of the great revolutions, the outcomes of these revolutions were limited in their successes (Weyland 2012, 917). Due to the lack of success, it is likely that the Arab Spring revolutions did not lead to high satisfaction levels. There are two possible theories to predict the outcomes.

With this literature in mind, one theory is that government satisfaction levels in Arab countries that experienced revolution will be no different or lower than satisfaction levels in countries that did not have a revolution due to instability and unfulfilled expectations. As discussed earlier, one major cause of revolutions is that the government does not adequately respond to rising expectations. In the Middle East, many Arab youths felt that they did not have any opportunities for economic success, even though they were capable of getting a good education and working hard. Whether from Western or Islamist influence, many people began to form expectations about their economic and political possibilities. For some, this meant that they expected political freedoms and civil liberties. For others, this meant they expected the government to provide social services. Many also viewed Tunisia's rapid success, believing they too could enjoy the same changes (Weyland 2012, 917). After revolutions, citizens likely anticipated that the new regimes would cater to their high expectations. Unfortunately, very few countries came out of the Arab Spring revolutions with strong, stable governments that were experienced enough to boost economic growth and establish a working democratic system. Post-revolution regimes were weak in most cases and could not handle the high expectations of their constituents. As supported by the research of others, government satisfaction corresponds to expectations and perceptions (Kornberg and Clarke 1994). Therefore, these unmet expectations likely result in an even lower level of satisfaction than before.

In accordance with this logic, satisfaction would also be likely to be lower because revolutions cause instability, which harms the economy. Economic performance impacts government satisfaction (Cusack 1999). As aforementioned, revolutionary regimes did not have the structural support of established governments, nor did they have any sort of expertise in how to rule a country. Not only were post-revolution governments unstable, the revolutions themselves also created instability. During 2011 and 2012, GDP in revolutionary Arab countries lost an astounding \$20 billion (Ibish 2012, 92). The processes of protest and overthrowing the government took time, money, and resources that detracted from economic growth. Thus, Arab citizens found themselves in unstable countries with unstable governments after the revolutions. This would likely have a negative impact on satisfaction. In comparison to countries that did not have a revolution, these countries might be less satisfied than before.

An opposing theory would argue that satisfaction levels in the Middle East increased in countries that had a revolution because the citizens felt empowered through their demonstration of power and efficacy. As mentioned before, perceptions play a large role in determining satisfaction (Aarts and Thomassen 2007). Therefore, if citizens perceive their governments to be a product of revolutionary ideals and a dismissal of old, oppressive dictators, they are more likely to feel very satisfied with government performance. After a revolution, citizens are more likely to see their governments as representative and fair. Despite any instability or inexperience, these perceptions alone may increase satisfaction. Citizens are especially likely to be satisfied if they took part in the revolution themselves, thus creating the perception that the new government is what they want. Even if the change in government did not produce an ideal regime, just the fact of having overthrown the previous regime would cause people to feel that they had accomplished something. This would give them a fulfilling sense of efficacy, which has a

powerful effect on the mind. Perceived efficacy heightens emotions, increases performance, produces a fulfilling sense of achievement, and contributes to greater motivation and aspiration (Bandura 2010; Bandura 1982). Collective efficacy has similar effects and even decreases the likelihood of violence (Sampson, Raudenbush and Earls 1997). It would be logical to attribute high satisfaction levels to high perceptions of both self and collective efficacies. Citizens would feel immensely satisfied by seeing the results of their protests, strikes, and demonstrations.

Both theories present compelling answers to this puzzle. A further exploration of the data will shed light on which theory most accurately depicts reality.

Research Design and Methods

To test these theories, I conducted a quantitative analysis of nine different Arab countries. Using data from the Carnegie Middle East Governance and Islam dataset, I regressed government satisfaction on a variety of individual level and country level data. I imitated Anderson and Guillory's framework for predicting government satisfaction (1997). They used many individual and aggregate variables to predict satisfaction with democracy. I included many of the same variables in order to apply their methods to an analysis of the Arab Spring. I also included many region-specific variables.

The Carnegie Middle East Governance and Islam dataset is a comprehensive compilation of data from fifty-six surveys in fourteen Arab Countries (ICPSR). Mark Tessler compiled individual and country level data from many different surveys and indexes, most notably the Arab Barometer and World Values surveys, into one dataset. This data was collected by face-to-face interviews. There are many specific, individual-level variables included in the set which focus on individual feelings, beliefs, opinions, attitudes, and behaviors. The dataset also includes

some country level variables, which measure aspects of the government institutions, economy, or development of different countries in the region. This data was collected from a variety of different resources, databases, and indexes. The dataset also includes demographic information (ICSPR).

The dataset includes data from 1988-2014. For the purposes of this study, I will be focusing on data from 2013 and onward. Though the Arab Spring is ongoing and many countries are still experiencing major effects from the uprisings, data in 2013 can accurately capture individual and country level indicators of beliefs, perceptions, and circumstances immediately following the revolts. The purpose of this study is to understand the immediate effects. It would be interesting to later investigate whether or not these effects are long-term. Though the dataset includes fourteen countries, I am only focusing on nine countries that have satisfaction data from 2013 and onward. These are: Tunisia, Egypt, Yemen, Iraq, Sudan, Lebanon, Morocco, Kuwait, and Algeria. The dataset includes both longitudinal and cross-sectional data. I will use both in my analysis.

Though this is the best available data for the purposes of this study, there are several limitations. First, I do not have access to data for all countries in the Arab world. I am limited in scope by the countries that were surveyed in my years of interest. I may be missing valuable information; however, it is impossible to get this data. Additionally, I do not have reliable data for pre-Arab Spring satisfaction levels. This question was not included systematically on surveys before 2013. Ideally, I would like to compare satisfaction levels before and after a revolution. However, due to the data, I can only do this in a limited scope. Finally, survey data is susceptible to many biases. Many respondents may not have answered honestly or may not have understood

the question correctly. However, the interviewees are randomly selected, which accounts for many other possible biases.

My dependent variable, government satisfaction, is an individual, ordinal measure based on the question, “On a scale from 1-5, indicate how satisfied you are with the performance of the current government.” The options are 1) not satisfied at all, 2) not very satisfied, 3) neither satisfied nor dissatisfied, 4) rather satisfied, and 5) very satisfied. I used fourteen different explanatory variables to predict government satisfaction. Of these variables, seven are individual level variables. Demographic variables, including age, gender, income and education, will show how individual attributes affect satisfaction. The other three variables measure political behaviors and views. These are: interest in politics on a scale from 1-5, whether or not the person voted in the last election, and perception of how democratic their country is. These variables shed light on how personal behaviors, attitudes, and demographics relate to overall satisfaction with government performance.

The other seven variables are country-level variables. To capture economic performance, I used real GDP per capita, as measured by the World Bank, and resource rents as a percentage of GDP, as measured by the World Bank. These variables explain how the state-level economic situation affects individual level satisfaction. I also included several measures of political institutions and systems. I used 1) Level of Democracy in 2013, as measured by Freedom House, 2) Freedom of Religion, as measured by the Government Regulation of Religion Index, 3) Corruption now, as measured by Transparency International’s Corruption Perceptions Index, and 4) Corruption with a five-year lag. My main independent variable of interest is a dichotomous variable that measures whether or not there was a revolution in that specific country. Using this

data, I ran an ordered logistic regression to determine how these different factors affect individual satisfaction with government performance.

After reviewing the literature, I hypothesized that the economic variables of interest would be highly significant as well as any variables measuring perception. Finally, I hypothesized that revolutions would have an effect on satisfaction levels, though the direction of this relationship was left to be discovered.

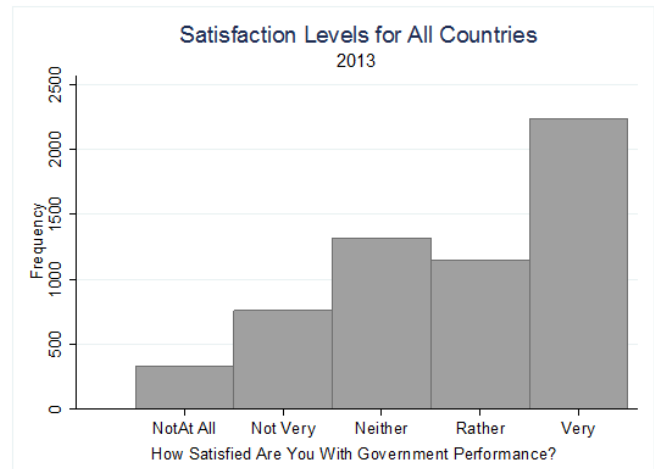
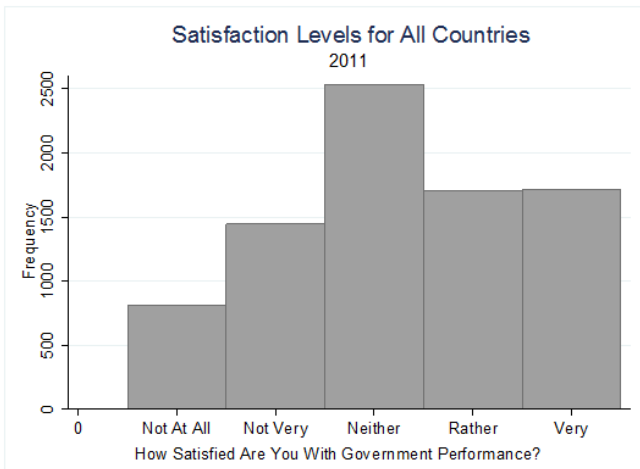
Descriptive Statistics

There are 5,796 observations across the nine countries in the years after the uprisings. All of the data is from 2013 with the exception of Kuwait, which is from 2014. There is an average of 700 observations for each country, with Iraq having the most and Morocco having the least. On a scale from 1-5, the mode is 5 which means that “very satisfied” was the most common response. As a comparison, in 2011, the mode was “neither satisfied nor dissatisfied.” However, the data for 2011 is limited. In 2013 only 4.78% of people answered that they were “not satisfied at all” while in 2011 23.53% of people gave that answer. Figure 1.1 shows the satisfaction levels

in 2011. Figure 1.2 shows the satisfaction levels in 2013. There is no data available for Kuwait, Morocco, and Lebanon in 2011.

Figure 1.1

Figure 1.2



From these graphs, it is clear that satisfaction levels immediately after the uprisings were relatively higher than in 2011 in terms of how many people said they were “very satisfied” compared to “not satisfied at all.”

It is also important to consider the differences between countries. Figure 1.3 shows the satisfaction levels broken down by country. From this graph, it appears that satisfaction levels across countries have a fairly similar distribution. Egypt and Lebanon have the highest numbers of people who say they were “very satisfied.” Few respondents in any country answered

that they were “very unsatisfied”, with the exception of Kuwait. In 2013, 68.65% of respondents from Lebanon said that they were “very satisfied”. In contrast, Algeria, with only 7.69%, has the lowest number of respondents who gave this answer. Lebanon also had the highest percentage of people respond that they were either “rather satisfied” or “very satisfied.” 84.56% of Lebanese gave either a 4 or a 5 response. Sudan and Morocco are next with 61% of respondents that were satisfied. Kuwait and Algeria had the lowest percentages of respondents that were satisfied. Kuwait had the most respondents say they were “not satisfied at all” with 19.39% of the respondents giving this answer. Kuwait is the only country that had more dissatisfied citizens than satisfied ones. However, it is important to note that the data for Kuwait comes from 2014, while all other data is from 2013. The highest percentage of dissatisfied people in 2013 come from Sudan.

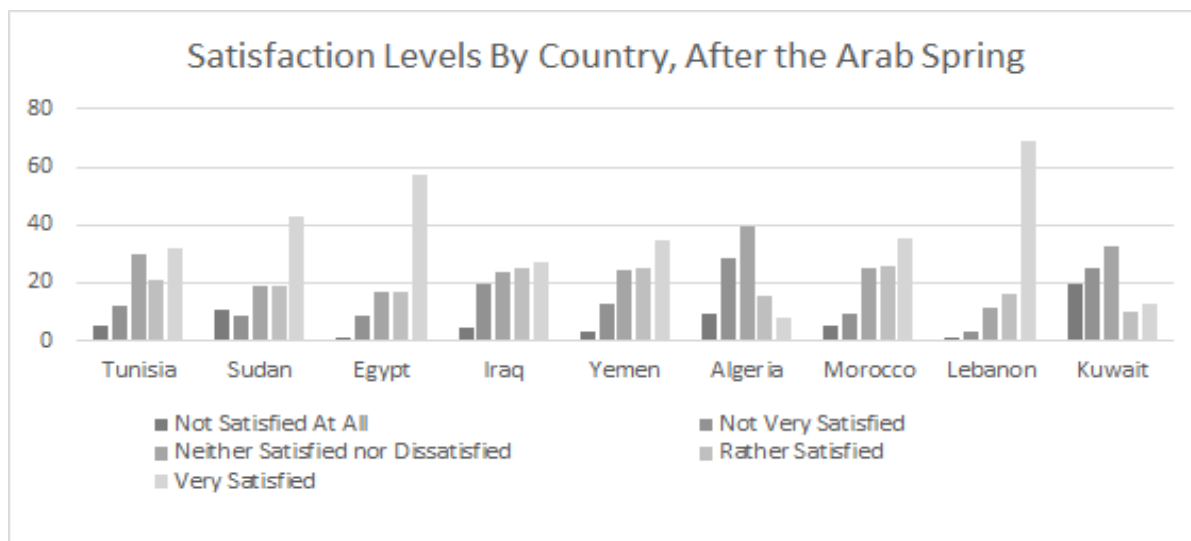


Figure 1.4 separates these countries by whether or not they had a revolution. In countries that had revolutions, 56.6% of people reported that they were satisfied with the government. In countries that only had protests but no major changes 51.72% of people reported to be satisfied. There is a .074 correlation between revolution and government satisfaction. Figure 1.4 shows satisfaction levels of revolutionary countries versus non-revolutionary countries.



Figure 1.4

From these graphs and statistics, it would appear that there is not a very large difference between countries that had revolutions and those that did not. Further analysis will shed light on whether or not revolutions influence satisfaction or if it is a result of other factors.

Finally, I used a Wilcoxon Sign Test to test the hypothesis that satisfaction levels are significantly different in countries that had revolutions. I used this test because my dependent variable is ordinal, thus a basic t test would provide inaccurate information based on means. The results of this test show that I fail to reject the null hypothesis that satisfaction levels between the two types of countries are the same. Therefore, I can conclude with confidence that satisfaction levels in countries that had revolutions are not significantly different than levels in countries that did not experience such a major change in government.

Regression Analysis

To better understand if and how revolutions affect satisfaction levels, I started by running a simple ordered logistic regression including only the dichotomous variable measuring whether

or not a country had a revolution. The variable was insignificant, which is consistent with the graphs and figures above. Just from looking at the comparisons, it does not appear that revolutions have a great effect on satisfaction levels. However, this is not a robust measure, as there are many other factors involved.

I next regressed satisfaction on the individual level characteristics only. Table 2.1 shows the results of this model. From the results, it would appear that political attitudes and beliefs have a strong effect on political satisfaction. It is interesting that voting in an election and perceiving a country to be more democratic have a significant negative effect on satisfaction levels. As an individual gets more involved in the political process and expects more political rights, he or she becomes less satisfied. Conversely, the more interested an individual is in politics, the more satisfied they are with the government performance. This seems counter intuitive, but it shows that political awareness affects satisfaction. The R-squared of the model was relatively low, indicating that the explanatory power of this model is limited in scope. However, these individual level characteristics are only a part of a bigger picture.

In the second model, I regressed only the country level characteristics to determine how global context affected individual satisfaction. Due to multicollinearity issues, I dropped several variables that I originally thought would be interesting. For example, the death toll of each uprising was almost perfectly related to whether or not there was a revolution. Therefore, I dropped these variables because they were essentially measuring the same thing as what I already included. All of the country level variables were highly significant, showing that country level characteristics have major effects on political satisfaction. However, the R-squared was much lower than the individual model, showing that these factors explain less of the variation in satisfaction levels. The largest effect was due to the Corruptions Perception Index score from 5

years ago. Countries that were perceived to be less corrupt five years ago actually have citizens that are less satisfied today. The 2013 index score had a strong opposite effect. Countries that are perceived to be less corrupt in 2013 had citizens that were more satisfied. Revolution also had a strong positive effect. According to these results, citizens in countries that had revolutions rate their satisfaction .9 points higher, on average, than those in countries that did not experience major change.

Finally, I ran a robust model including all variables. Table 2.1 displays the regression results for this comprehensive ordered logistic regression. From the results, it is clear that country level characteristics are more significantly correlated to personal satisfaction than beliefs, behaviors, or demographics. All of the country level variables were significant at the 99% confidence level. With the individual variables included, the effect of revolutions goes down. However, it is still positive and highly significant. This evidence supports the theory that revolutions increase government satisfaction. Citizens of countries that had a revolution rated their satisfaction levels about half a point higher than citizens of countries that did not. The R-squared of this model was the highest of all of them, though it was still relatively low. This model does not capture all of the variation in satisfaction levels.

Table 2.1

Dependent Variable: Satisfaction with Government Performance After Arab Spring (2013/2014)			
	Model 1: Individual Ordered Logit Estimates (SE)	Model 2: Country Ordered Logit Estimates (SE)	Model 3: All Ordered Logit Estimates (SE)
Individual Monthly Income	.019 (.019)		-.017 (.02)
Interest in Politics	.081*** (.028)		-.029 (.028)
Education Level	.002 (.009)		.001 (.008)
Perception of Democracy	-1.6*** (.036)		-1.507*** (.036)
Sex	-.09* (.053)		-.106* (.054)
Age	.033* (.019)		.023 (.019)
Voted in Last Election	-.304*** (.056)		-.325*** (.058)
Revolution (0:1)		.91*** (.071)	.494*** (.076)
Corruption Perception Index		1.24*** (.093)	1.18*** (.099)
Corruption Perception Index, 5 year lag		-2.62*** (.136)	-2.26*** (.146)
Government Regulation of Religion Index		-.159*** (.033)	-.025 (.035)
Natural Resource Exports as % of GDP		-.085*** (.004)	-.067*** (.004)
Political Rights (Freedom House)		-.441*** (.039)	-.302*** (.042)
GDP Per Capita		.0000719*** (4.36e-06)	.0000678** (4.66e-06)
Observations	5,796	5,796	5,796
Pseudo R-Squared	.1485	.059	.1832

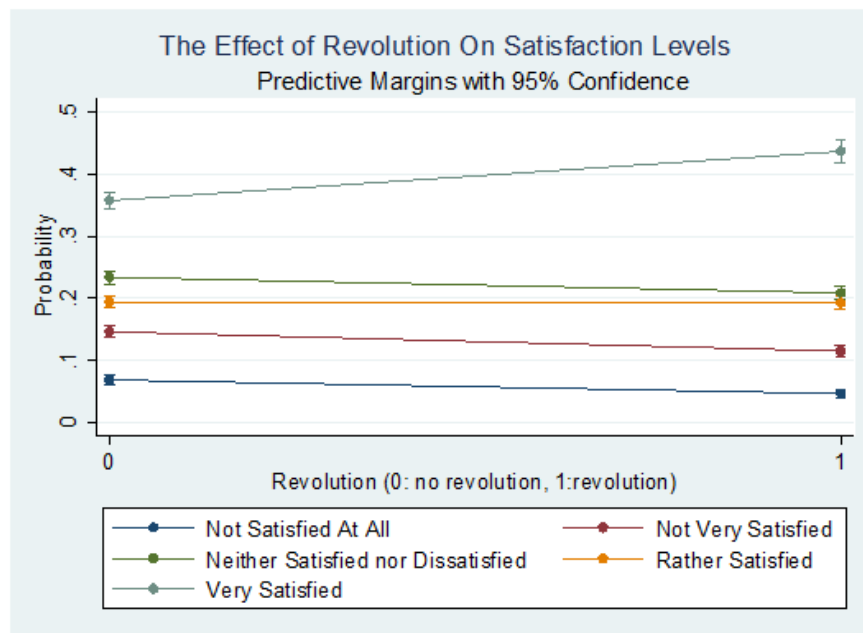
Figure 2.4 visually represents how revolutions affect satisfaction with government performance, as predicted by the robust regression analysis. From this graph it is clear that the

Significance: *p<.1, ** p<.05, ***p <.001

large positive coefficient can be attributed the number of people who were “very satisfied.” All of the other satisfaction levels appear to remain unchanged or to decrease slightly. Therefore, revolutions increase the probability that someone reports being “very satisfied” with government performance. Interestingly, satisfaction levels are not different across countries, but having a revolution increases the chances of being extremely satisfied with the government.

Figure 2.4

The Corruption Perception Index still had a large effect, as did an individual’s perception of how democratic his or her country actually is. In fact, these variables had the largest effect on



satisfaction. It would appear that satisfaction is largely a result of how one perceives the government to function and how many freedoms they feel they have. This aligns with many of the previously stated theories (Dalton 2005; Aarts and Thomassen 2007; Kornberg and Clarke 1994). Perceptions and beliefs play the most important factor in determining satisfaction levels.

Figures 2.5 and 2.6 show the effects of these two highly significant variables. Figure 2.6 shows that the probability of being “very satisfied” significantly decreases as a person perceives their country to be more democratic. Clearly, people are less inclined to be completely satisfied

if they have high expectations for how democratic their country should be. This is in line with Kornberg and Clarke's theory that satisfaction is affected by how well beliefs match reality (1995). If a person views the country to be completely democratic, he or she would logically be less satisfied with government performance that was not completely democratic. Corruption perceptions had the opposite effect. It is important to note that the measure for corruption perceptions comes from an index that gives each country one aggregate score whereas democracy perceptions were based on each individual. However, as a country's citizens perceived it to be less corrupt, they had a much higher probability of being "very satisfied." The probability of falling into other categories of satisfaction actually decreased as a result of perceiving less corruption. It is also interesting that the highest score any country got was a 4.3

on a 10-point scale. Even if a country is perceived to be less corrupt, it is still very far from being completely clean.

In accordance with theories previously mentioned, the economic variables were significant. However, the effects were not nearly as large as perceptions and beliefs. This follows Davies' argument concerning revolutions and the importance of perception (Sanderson 2016, 63). As GDP per capita increased, satisfaction increased as well. However, the effect is small. For each \$1,000 PPP increase in GDP per capita, an individual would rate their satisfaction only

Figure 2.5

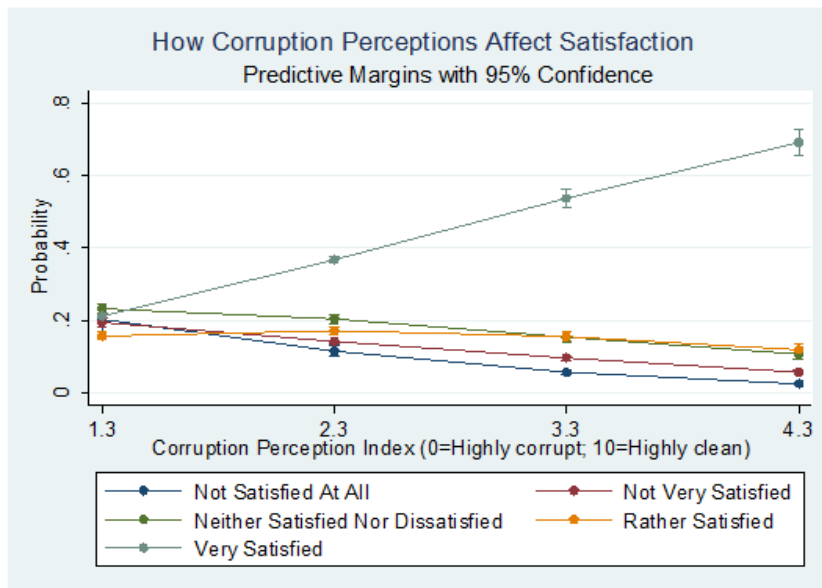
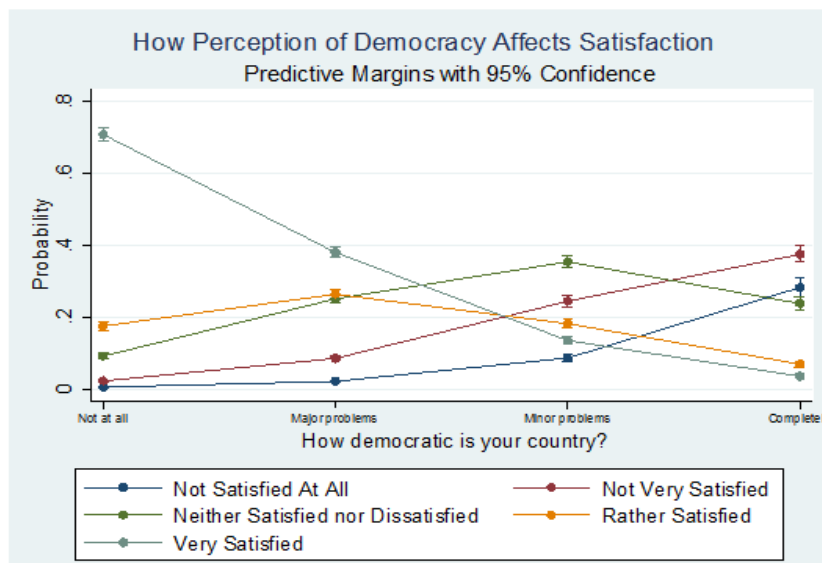


Figure 2.6



.06 points higher. The percentage of natural resource exports in GDP was meant to measure whether or not rentier states that relied heavily on oil revenues produced more satisfied citizens. The results actually show that heavily relying on natural resource rents negatively impacts citizen satisfaction with government performance. The effect, however, was also small. On the individual level, personal income was not significant at all. It appears that political variables, including both perceptions and realities, have stronger effects on satisfaction than economic variables.

The regression results show that satisfaction is significantly affected by whether or not a country had a revolution, yet the Wilcoxon Sign Test showed that both types of countries were not significantly different in terms of satisfaction levels. The graphs explain this discrepancy by showing that the largest effects occurred in determining whether or not people were “very satisfied.” Overall satisfaction levels might not be very different, but having a revolution greatly increases the probability of having very high levels of satisfaction on an individual level. Therefore, revolutions affect satisfaction, but they do not necessarily lead to countries having a higher percentage of satisfied citizens.

The regression results support the theory that revolutions lead to higher satisfaction levels. It is also true that perceptions have a very large effect, which is consistent with the literature. It seems likely that revolutions alter perceptions in a way that makes people more satisfied. Perhaps the revolution itself does not cause higher satisfaction but a better perception of government efficiency and fairness. This then leads to higher levels of satisfaction, specifically of those that are “very satisfied.” The large underlying question that remains unanswered is why some countries did end up having full-scale revolutions while others did not. I would also have liked to include satisfaction levels before 2011. However, data for this year

was scarce and incomplete. It would be interesting to see if countries that had revolutions started from lower levels.

Closer Look: Tunisia, Lebanon, and Morocco

To better understand how revolutions affect satisfaction levels and to make sense of the regression results, I decided to take a closer look at Tunisia, Lebanon and Morocco. By 2013, each country followed a very different trajectory and ended up with different satisfaction levels. Tunisia had a revolution, but remains at the same satisfaction level as Morocco, which did not succeed in ousting the regime. Lebanon did not have a revolution and has the highest satisfaction levels of any country in 2013. In considering these three very different cases, I will take a closer look into their political institutions, economies, and perceptions about the government.

According to prior research, these three factors have a very large influence on satisfaction levels.

Lebanon, Tunisia, and Morocco each had very different political systems before the onset of the uprisings. Compared to other Arab countries, Lebanon has a fairly democratic system (Geling 2012, 24). Additionally, the Lebanese political elite were flexible in adapting to a changing political climate (Kenner 2013). Tunisia, on the other hand, had an authoritarian regime ruled by long time dictator Ben Ali. The main goal of the protestors was to retaliate against the oppression of the system and to instigate change. Unlike the other two countries, Morocco is a monarchy. The king is both the head of state and the religious leader, which helped legitimize his position (Yerkes 2016). Protestors were not attacking the king directly, but rather targeted corruption within the political elite. In fact, monarchies tend to cope with upheaval better than presidents; no monarchies in the region fell during the Arab Uprisings (Yom 2012). The monarchical system provides the framework for leaders to initiate reform, which is what

Moroccan King Mohammad VI did in 2011 by reforming the constitution to grant more freedoms. This reformed constitution cleared up some controversial items by stating that Morocco was a Muslim state, by recognizing Amazigh as an official language, and by limiting some powers of the king. Though many protestors were not satisfied, the new constitution was backed by the political parties, who did not push an agenda of complete governmental change (Ottaway 2011). In a comparison of political systems, it is clear that Tunisia's was the most likely to produce dissatisfaction. The fact that Lebanon is fairly democratic no doubt contributes to why citizens did not participate in full blown uprisings and why the country has high levels of satisfaction today. According to Anderson and Guillory's framework, democratic institutions and political systems produce the most satisfaction (1997). From this, it looks like Tunisia started out with lower levels of satisfaction due to the nature of the regime.

In terms of the economy, Lebanon was the most economically sound of the three countries. In 2013, Lebanon had a stable economy with a relatively high GDP per capita of 8,388 USD (World Bank 2017). Unlike many other countries in the Middle East, Lebanon was not suffering as much from economic hardship and stagnation. This not only explains satisfaction levels, but also the reason as to why Lebanon did not have a revolution. In fact, many of the financial factors that led other countries to rebel in 2011, such as high inflation, stagnation and crisis, were not present in Lebanon (Geling 2012, 23). In 2013, Tunisia's GDP per capita was 4,249 USD (World Bank 2017). This is almost half of Lebanon's. During the Arab Spring, Tunisia lost 5.5 percent of GDP. In 2013, Tunisia lost another 6.4 percent as the repercussions of the revolution continued (World Bank 2017). The revolution had a large negative impact on Tunisia's economy. Morocco's GDP per capita in 2013 was 3,093 USD, the lowest of three

countries (World Bank 2017). Once again, this not only explains why Lebanon's satisfaction ratings are higher, but also why Tunisia and Morocco have similar levels.

Finally, perceptions of corruption also differ between the three countries. In 2013, Lebanon's corruption perception index score was 2.8 out of 10 (Transparency International 2017). Tunisia's score was 4.1, one of the highest in the region and almost double that of Lebanon's (Transparency International 2017). Though there are still a lot of problems in Tunisia, corruption has become a much smaller issue. Finally, in 2013 Morocco's corruption perceptions score was 3.7, right in between Tunisia and Egypt (Transparency International 2017). However, Lebanon had the highest percent change since 2011, with a 12% increase. Tunisia's score increased by 8% while Morocco's increased by 9%. Tunisia and Morocco have similar changes and similar satisfaction levels. Lebanon's high satisfaction might also be attributed to its decrease in corruptions perceptions, even though it has a lower score.

In reviewing these three cases, it is clear that countries that had a revolution may increase satisfaction levels, but this does not mean they are more satisfied than their neighbors who did not have revolutions. Even though Tunisia had a revolution, it still has issues. Many Tunisians continue to be dissatisfied with the new government. An opinion poll several years later showed that the majority of citizens were unhappy with where the country was going and felt they should see more progress resulting from the revolution (Bishai and Mastic 2016). Tunisia still suffers from many of the maladies that prompted it to overthrow the government in the first place. This explains why Tunisia's levels are not very different than Morocco's. Though Morocco did not have a revolution, the citizens peacefully instigated some change while maintaining a relatively peaceful status quo. In the case of Lebanon, it appears as if it did not have much of a reason to revolt in the first place. Thus, Tunisia's satisfaction was likely much lower to begin with. Having

a revolution therefore increases satisfaction, but it does not mean that revolutionary countries will be more satisfied than countries that did not have major changes. In fact, these countries may simply be catching up to their neighbors that did not have as much of an incentive to instigate major changes.

Conclusions and Implications: The “Honeymoon” Phase

The results show that countries with revolutions appear to have no different satisfaction levels than those that did not, and yet revolutions significantly increase satisfaction levels. How should these mixed messages be interpreted? Though I remain uncertain and would like to do further research, four things are clear. First, revolutions mostly impact the proportion of citizens that responded that they were “very satisfied” with government performance. This means that the true impact is on the probability of having high satisfaction levels. Second, perceptions are vitally important. This aligns with the second theory, which states that revolutions lead to increases in satisfaction levels. Third, all of the countries started out from different levels of satisfaction. Countries that had enough reason to take to the streets and overthrow a dictator probably had the most reason to do so in the first place. They likely started with lower levels of overall satisfaction, and thus it would make sense that having a revolution greatly increased their perceptions and thus their satisfaction. This would allow them to reach the satisfaction levels of the other countries that did not have grievances large enough to incite revolution. Fourth, timing is everything. The fact that this data was collected in 2013 is no trivial matter. These findings reflect the immediate impact of a revolution, and changes in this are inevitable. The region is still in a volatile situation and this trend might not continue throughout the years. Satisfaction levels may continue to rise, but they may also stagnate or decrease as time goes on. A follow up study

would illuminate more factors that influence government satisfaction and whether or not it is stable.

The implications of this study are quite interesting. In the immediate aftermath of a revolution, it is not the absolute things that matter. Perceptions drive satisfaction levels, and thus revolutions create a feeling of satisfaction that is probably higher than the situation merits. As expectations continue to rise, however, a future of continued increasing satisfaction is unlikely. The relationship between revolutions and satisfaction is not linear. In 2013, revolutionary countries were in the “honeymoon phase” of the revolution. After successfully ousting a dictator that had oppressed them for years, citizens undoubtedly felt a deeply satisfying sense of accomplishment. Despite other problems that arose from the revolution, initially the feelings were positive. This phase no doubt inflated satisfaction levels among the citizens of revolutionary countries, thus impacting their satisfaction while not necessarily making them more satisfied than their neighbors.

It is highly possible that satisfaction levels will begin to decrease as time goes on and expectations remain unmet. Egypt provides a good example for this conjecture. In the data used for this study, Egypt had the second highest satisfaction levels of any country. However, shortly after this data was collected, Morsi was ousted in a coup d'état, and Egypt has once again fallen into chaos and instability. Unsatisfied with the regime produced by the revolution, the military stepped in to make some changes once again. Though satisfaction level data for the years following this event are unavailable as of now, it is likely that they are much lower in Egypt than the extremely high levels of satisfaction reported in 2013. It appears that Egypt's “honeymoon phase” was not very long lived. As Tunisia continues to struggle with implementing a new, democratic regime, it is also possible that citizens will become disenchanted with the

government and start to expect more. Other country's honeymoon phases, such as Yemen, ended in bloody civil war. As the term "honeymoon phase" itself suggests, these increased satisfaction levels are likely just a phase that will not persist throughout the years.

If revolutions really do produce such a phase, what are the implications? I argue that the years immediately following a revolution are absolutely crucial to the success of the new regime. While taking advantage of inflated satisfaction levels, a new regime has the opportunity to solidify power and make rapid changes. If it fails to do so, long term change would be difficult and unlikely. Morsi failed to use this phase to his advantage, and thus was ousted quickly thereafter. Additionally, countries in which changes led to civil war, such as Yemen, also failed to produce regimes that could survive past the honeymoon phase. However, this leaves me fairly optimistic about Tunisia's future. The new, democratic Tunisian government has stayed in place since Ben Ali left. It even survived through a series of elections and changes in power. They have undoubtedly survived the honeymoon phase, and based on their economic situation, political system, and corruptions perception, satisfaction levels will not plummet. The Tunisian success will likely be long term.

In conclusion, revolutions positively impact satisfaction levels in the short run. While this does not mean countries surpass others that did not have revolutions, it does mean that the probability of being very satisfied increases. Time will tell if these impacts persist in the long run.

Interesting, provoking paper, Anne. Let me provide a few points that may be more or less useful. I'm not sure to what extent you are giving the paper an overhaul or just tinkering around the margins. Your title suggests that you are asking the question about whether revolutions increase the population's satisfaction in the government. But often in your paper a second question comes up: is dissatisfaction a cause of revolution? There are some theories that emphasize this, most notably the relative deprivation theory by Davies and others. These theories have not fared well because people like Skocpol have pointed out that dissatisfaction is a very poor predictor of when you get revolution and when you don't. I don't think you want to go down the road of providing a theory of revolution, and I don't think it is necessary for your paper to have a theory for why certain states succumb to revolution. You can just say that in states that have revolutions we assume that a large segment of the population is not happy with what is going on without suggesting that satisfaction itself is a single predictor for revolution. So I'd probably note the theories of revolution that involve dissatisfaction but make clear that you are not offering yourself a theory of revolution. You are just making the reasonable assumption that people who rise up and revolt are dissatisfied with how things are going. Given that is the case, it has implications for how we test things. It seems reasonable to suppose that, all else being equal, those states that undergo a revolution have a population that, prior to the revolution, are more dissatisfied than those states that never have a revolution. But if that is the case then it doesn't make much sense to compare the level of satisfaction in a state that has undergone a revolution with one that hasn't to get at the question of whether the revolution has made people more satisfied, because the people in the other country have an initially higher base of satisfaction. It seems the best strategy is to just compare satisfaction before and after a revolution in each country that has undergone a revolution. That is directly addressing the

question you posit at the outset and you don't have the complications of controlling for the comparisons of other states that start at different baselines. It sounds like there is a data limitation in doing that. I'd do it for the cases you can, and just explain upfront this data limitation and how you are going to try to get around it. Finally, your finding that the revolutions increase the number of those that say they are very satisfied might be cause for you to reflect further on the satisfaction distribution in a population and a revolution. Those that revolted, which is usually a minority of the population, are probably very happy they have succeeded, at least in the short run. In any regime, some people are happy with that regime because they are benefiting from it. When a revolution happens and their regime is gone, if they haven't found a way to secure their position, they are not going to be happy. And the same is true vice versa. And perhaps there are some people who benefited from neither regime and their level of satisfaction is unchanged from the revolution. The question then is what are the distribution of these groups. If both regimes, for example, don't satisfy the bulk of the population and a small group goes from benefiting to not and another small group goes from not benefiting to benefiting, then the level of overall satisfaction probably wouldn't change, just the distribution of satisfaction. So maybe the satisfaction levels that revolutions cause depends on the nature of the prerevolutionary regime and its population, and the nature of the post-revolutionary regime and its population

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