

Risk Tolerance During Violent and Non-violent Collective Action: Evidence from Iraq, Syria, and Ukraine

While both violent as well as non-violent collective action carry potential risks, the mechanisms driving risk tolerance are not well understood. In this study, we examine risk preferences among 300 participants in 2019-2020 non-violent anti-government protests in Baghdad, Iraq, which we compare to our prior work on risk tolerance among combatants from conflict zones in Syria and Ukraine. Based on responses to an Eckel-Grossman choice game, we find elevated that rational risk-taking is greater among non-violent protesters while irrational risk taking is greater within conflict environments. We propose that this divergence is due to competing strategic and psychological factors underlying risk taking, where the strategic logic of risk-taking predominates under non-violent collective action while psychological factors drive risk-taking during violence. Our findings have implications for the relative success of non-violent civil resistance compared to violence and for understanding the escalation process to increasingly high-risk, high cost forms of collective action.

How important are risk preferences to understanding participation in violent versus non-violent collective action? The dominant perspective from the literature is that activists tend to move to increasingly higher risk, higher cost forms of collective action (McAdam 1986). We consider interactions between risk preferences and violent vs. non-violent collective action. Specifically, we examine risk a non-violent context of anti-government protests in Baghdad, Iraq compared to violent contexts involving civilians and combatants from the Donbas conflict in Eastern Ukraine and the Syrian civil war. We utilize a common risk measure, a variant on the Eckel-Grossman choice game in all three settings. We find that the Baghdad protest sample, who at the time of our study were peacefully demonstrating against the Iraqi government, display high levels of risk tolerance comparable to combatants and non-combatants in Ukraine and Syria. Our results indicate that both violent and non-violent collective action carry potential risks, but diverge with respect to underlying rational and psychological motivations. Our results have implications for who participates in violent versus no-violent collective action and why.

Risk Tolerance and Collective Action: There is a growing literature on the study of risk tolerance in the social sciences (Finke and Guillemette 2016). Scholars are increasingly examining the relationship between violent and non-violent collective action and risk tolerance. In some cases, conflict researchers find evidence of elevated risk tolerance (Voors et al. 2012; Jakiela and Ozier 2019; Mironova et al. 2019) but also risk aversion in others (Callen et al. 2014, though see Vieider 2018). Risk tolerance also plays an important role in social movement activism, where social activists tend to gravitate toward increasingly higher-risk, higher-cost forms of collective action over time (McAdam 1986). Several studies incorporate risk taking in

analyzing social movement activist behavior (Nepstad and Smith 1999; Hairgrove and Mcleod 2008; Ayanian and Tausch 2016; Raridon et al. 2020; Mironova and Whitt 2020). To our knowledge, however, no study has directly compared risk preferences among non-violent activists to those who engage in violent collective action. We now turn to our hypotheses to fill this gap.

Violence, Non-Violence and Risk Tolerance: Risk tolerance can be understood on one hand as a function of rational expected utility calculations (von Neuman and Morgenstern 1947; Savage 1954; Arrow 1965) but also a result of psychological processes that deviate from rational expectations (Kahneman and Tversky 1979; Starmer 2000). While engaging in both violent and nonviolent forms of collective action could be rational from an expected utility framework, uncertainty about costs may complicate assessments of risk, and benefits might be accrued through free riding (Weinstein 2006; Humphreys and Weinstein 2008; though see Kalyvas and Kocher 2007). Compared to non-violence, individuals who participate in violence should be more likely to incur higher costs through the increased likelihood of death or severe injury during battle (Fazal 2014). Given high costs of violence, psychological drivers may supersede cost-benefit logic at the individual level. We argue that participants in violence are more likely to be driven by irrational motives rather than expected utility calculations when assuming risk.

Non-violent collective action also carries its own risks. We do not discount the inherent risks associated with civil resistance, especially when government or counter-mobilizing forces use violence against peaceful protesters. However, when governments use violence against non-violent protesters, it often backfires, leading to a shift in domestic and international support toward protesters, growing anti-government opposition movements (Stephan and Chenoweth

2008). This is one reason why non-violent collective action is more likely to achieve stated goals compared to violence (Chenoweth 2020). Hence, from a cost-benefit perspective based on outcomes, risk taking through non-violence may be worth the risk, even under conditions of government repression. In contrast, taking risks for violent causes appears more irrational and should require psychological drivers to overcome cost-benefit deficits in terms of lower probability of success (Stephan and Chenoweth 2008). We test the following hypotheses:

Hypothesis 1. Rational risk taking during non-violent collective action is greater than during violence.

Hypothesis 2. Irrational risk taking during violent collective action is greater than during non-violence.

Research Design: We examine risk tolerance using recent data from non-violent anti-government protests in Baghdad Iraq in January 2020. We compare risk tolerance among Iraqi activists to combatants and civilians from conflict-affected areas with available data from eastern Ukraine (2014-2017) and northern Syria (2012-2013). We measure risk tolerance using behavioral experiments which are adaptations of a standard Eckel-Grossman (EG) choice game (Eckel and Grossman 2008), which have advantages over other risk measures for simplicity and clarity (Dave et al. 2010; Charness et al. 2013). We employ two variants of the choice game: one in which the expected value of risk taking increases linearly (Table 1a) and therefore risk tolerance should be considered rational, and a second (Table 1b) where expected value of risk is non-linear and decreasing at higher levels of risk, such that risk taking is increasingly irrational. Figure 1 plots the expected values from both choice games. We then test hypotheses 1 and 2 by comparing risk tolerance on both items among non-violent Baghdad protesters to combatants and

noncombatants in conflict areas of Syria and Ukraine for a cross-national comparison of risk taking. Hypothesis 1 predicts that Baghdad protesters will be more risk taking in the choice game with linear expected values compared to Ukraine and Syria, while Hypothesis 2 predicts less risk tolerance among Baghdad activists in the non-linear choice game.

Table 1a. EG Choice Game (Linear Expected Values)

Which of the following options would you prefer?

Option		
5	50% chance of receiving 4000	50% chance of receiving 480
4	50% chance of receiving 3200	50% chance of receiving 560
3	50% chance of receiving 2400	50% chance of receiving 640
2	50% change of receiving 1600	50% chance of receiving 720
1	100% chance of receiving 800	

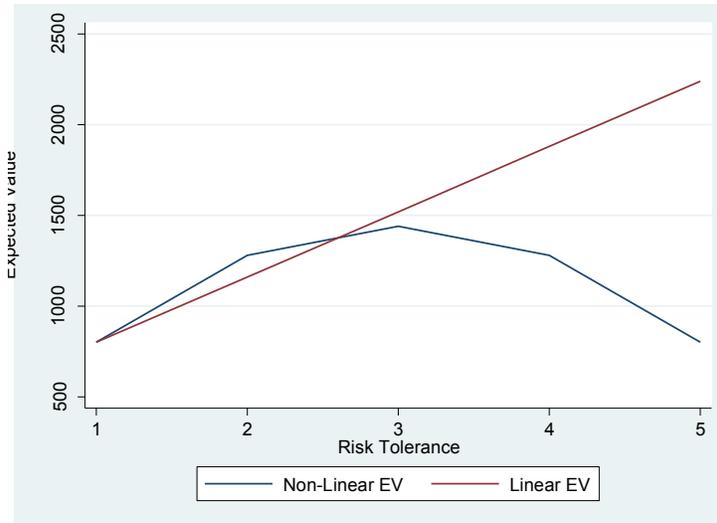
Note: values in Iraqi Dinar

Table 1b. EG Choice Game (Non-Linear Expected Values)

Which of the following options would you prefer?

Option		
5	20% chance of receiving 4000	80% chance of receiving 0
4	40% chance of receiving 3200	60% chance of receiving 0
3	60% chance of receiving 2400	40% chance of receiving 0
2	80% change of receiving 1600	20% chance of receiving 0
1	100% chance of receiving 800	

Figure 1. Expected Value of Risk Taking



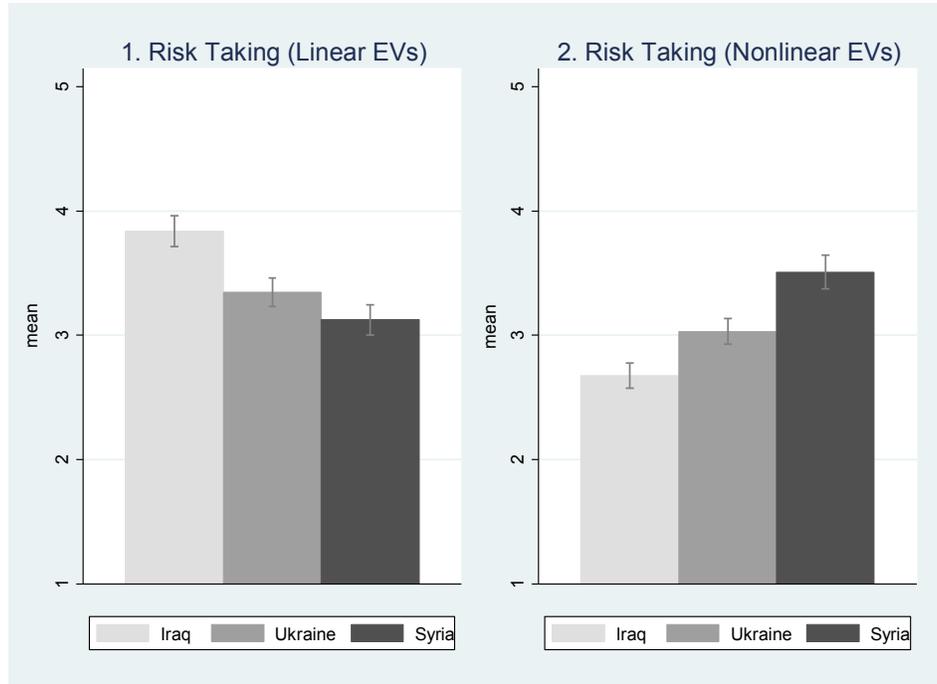
Data Collection: Data were collected from 300 respondents in Iraq in late December 2019 during non-violent anti-government protests in Baghdad.¹ Sampling was conducted by cluster sampling at protest locations with local interviewers who conducted interviews in semi-private locations away from protest crowds after obtaining consent to participate in the study. We compare our results to risk experiments conducted previously in Eastern Ukraine (2014-2017, N = 600) and Syria (2013-2014, N = 501). In the Ukraine case, our sample consists of local civilians and military combatants from the Kharkiv region who were deploying to the Ukrainian Donbas region to fight Russian insurgents (Mironova and Whitt 2020). For Syria, our sample consists of civilians and combatants in the northern conflict zone of the Syrian civil war (Aleppo and Idlib provinces) as well as refugee populations from neighboring Turkey (see Mironova et al. 2019). We employed similar cluster sampling methods in Ukraine and Syria to sample

¹ Although these protests eventually turned violent due to government crackdown on protesters, our field research was conducted prior to this escalation period in late January.

fighters and civilians. See the online appendix for further discussion of data collection to include our commitment to ethical conduct of field research.

Results: How does risk taking under non-violent collective action compare to circumstances of increased violence? Figure 2 below reports the mean risk taking in both the linear and non-linear variants of the EG choice games for the Iraq, Ukraine, and Syrian samples. Consistent with Hypothesis 1, Figure 2.1 shows that mean risk tolerance in the linear-EV game is greater in the non-violent protester sample (Iraq) than in the low intensity conflict sample (Ukraine) or the high-intensity conflict sample (Syria). In support of Hypothesis 2, Figure 2.2 shows the reverse effect in the non-linear game. Risk tolerance is lower in Iraq compared to the other two samples. There is also a clear gap between linear and non-linear risk taking within each sampling group. Iraqi protesters are more risk taking in the linear game than in the non-linear game, while Ukrainian and Syrian samples are more risk taking in the non-linear game than the linear game.

Figure 2. Mean Risk Tolerance by Location



To further evaluate Hypotheses 1-2, we compare results cross-nationally using regression analysis (Table 2). In Models 1 and 2, the dependent variable is risk taking in the linear and non-linear EG games respectively. In both cases, the dependent variable ranges from 1 to 5 with increasing risk tolerance. Consistent with H1, Model 1 shows that Iraqi protesters (represented in the constant term) are more rationally risk tolerant compared to those in Ukraine and Syria. In support of H2, Model 2 reports that Iraqi protesters take less irrational risk compared to the Ukraine and Syria samples. Finally, Model 3 takes the difference between risk tolerance scores in the linear and non-linear EG games, such that the dependent variable ranges from -4 (greater irrational risk taking relative to rational risk) to +4 (greater rational risk taking compared to irrational risk). Model 3 shows that Iraqi protests have a net positive difference score while Ukrainian and Syrian groups have a net negative score, which further supports the hypotheses that subjects differentiate between rational and irrational risk in opposing ways. There is also a magnitude effect where Ukrainians in the low intensity conflict sample are less irrationally risk

tolerant than the high intensity Syrian conflict sample suggesting how exacerbating conflict elevates irrational risk taking. In an online appendix, we provide a range of robustness checks to support our main results.

Table 2. Risk Tolerance by Location (OLS regression)

VARIABLES	(1) Rational Risk taking Linear EVs	(2) Irrational Risk taking Non-Linear EVs	(3) Difference (1-2)
Ukraine	-0.491*** (0.0851)	0.356*** (0.0738)	-0.703*** (0.0998)
Syria	-0.714*** (0.0881)	0.834*** (0.0870)	-1.543*** (0.110)
Constant (Iraq)	3.837*** (0.0621)	2.674*** (0.0522)	1.163*** (0.0753)
Observations	1,324	1,328	1,324
R-squared	0.039	0.058	0.119
adj. r2	0.0374	0.0561	0.118

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Discussion and Conclusion: We find that participants in both violent and non-violent collective action are willing to take risks, as evidenced from decision-making in behavioral experiments. Few participants in either the linear or non-linear EG choice games choose the sure payoff (11.5% and 12.5% respectively). However, respondents diverge on risk preferences with non-violent protesters taking greater risk when rational to do so by expected utility calculations, while combatants and civilians in combat zones take greater irrational risks in violation of expected utility of payoffs. We propose that the inherent dangers of conflict zones led to either a reduction in rational risk taking evaluations or selection on individuals with psychological predispositions toward irrational risk. In contrast, non-violent collective action, with its emphasis

on unity, organization, and self-discipline (Popovic et al. 2007), may condition or select on individuals with higher propensities for rational risk evaluation. Non-violence has also been shown to more effective at achieving goals (Stephan and Chenoweth 2008), and thus a rational risk worth taking. While our results will require more testing to identify selection versus adaptation mechanisms, integrating the theoretical and empirical literatures on violent and non-violent collective action through the study of risk tolerance, in both its rational and irrational manifestations, furthers our understanding of why some take risks to protest peacefully while others take risks to fight.

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