

**Online Resource for ‘Who matters for memory: Sources of institutional memory in international organization crisis management’
in *Review of International Organizations* (2017)**

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I. Theoretical Argument

Additional Discussion of Terminology

My choice to use the term ‘strategic error’ reflects several ideas. First, the term is agnostic about who caused the action. Second, it describes the action in relation to the crisis management operation’s goals (D. Hofmann & Frese 2011). Third, it is a term used by practitioners (elites and non-elites) more frequently in military organizations.

Alternative terms would have failed to capture all three of these notions. For example, my use of the term ‘lesson’ could imply that learning is already in the process of occurring. Similarly, using the term ‘failure’ does not capture the central role of human behavior. MacPhail and Edmondson note that ‘not all failures are errors’ (MacPhail & Edmondson 2011). The use of the term ‘mistake’ may imply that an action was an accident that is unlikely to ever occur again. Strategic errors, in contrast, may or may not recur but they undoubtedly have a negative effect on the ability for an organization to achieve the goals set out in the mandate for a crisis management operation.

With respect to specific actions as errors, I refer to actions that span the full spectrum of crisis management. These include the decision to respond to the crisis, the decisions and actions taken to manage the crisis, as well as decisions and actions upon the conclusion of the intervention. Ultimately, strategic errors can occur at any point throughout the lifetime of a given case of IO crisis management.

Additionally, in considering *past* strategic errors in institutional memory, I interpret the term ‘past’ widely as meaning an action has just occurred to it having occurred farther in the past. I am therefore interested in strategic errors that elites would describe when using either the imperfect or past perfect grammatical tenses. I expect elites to identify and remember ongoing strategic errors in the same way that they identify and remember past strategic errors.

See: Hofmann, D.A. & Frese, M., 2011. *Errors in Organizations*, New York, NY: Routledge.

II. Hypotheses

Discussion of Hypothesis 4: The International Media

As indicated in Footnotes 3 and 15 in the study, I originally included a fourth hypothesis concerning the international media as a source. However, I subsequently decided to omit it after the completion of the study given the limited theoretical support (and limited empirical support) for the hypothesis. I include discussion of this fourth hypothesis below. Lack of empirical support for the hypothesis is discussed at the bottom of this document.

H4: In the context of crisis management, elites who receive knowledge about an action categorized by the international media as a strategic error will be more likely to record and share the knowledge. This hypothesis builds off of an explanation in which the international media acts as an objective outsider source collecting critical knowledge about crisis management operations in the field. Elites may perceive the international media as watchdog of governments since it is a source that is external to the international organization. The media's perception of strategic errors should be especially salient for elites in IOs comprising democratic states where public support matters for state survival. We should therefore expect IO elites to perceive the international media as less biased and thus more credible than internal sources. Abbott et al. argue that IOs 'orchestrate' external sources to achieve their goals (Abbott et al. 2015). In this way, the international media may serve as an external and intermediary actor that affects the behavior of IO elites. Foreign correspondents provide daily reports from conflict environments across the globe - including areas in which NATO has conducted and continues to conduct crisis management operations (e.g. Afghanistan, Kosovo, Libya). As a result, international media corporations are able to gain access to a wide range of relevant information.

In addition to affecting public opinion, the media can also affect decision-makers themselves as a source cue. Political scientists have long debated the multifaceted relationships among the media, foreign policy-making, events and public opinion (Baum & Potter 2008, pp.40-41) and broadly agree that the media acts as a conveyer belt to disseminate the ideas of elites among the public and public opinion back to elites. The

much-debated ‘CNN effect’ refers to how increased media coverage – and in turn increased public awareness – of civilian casualties may lead to policymakers’ choosing to intervene militarily in a conflict (Robinson 2005). According to this effect, the 24-hour news cycle should bypass elite sources, leading publics to pressure policymakers to act. Jakobsen argues that the effect is ultimately invisible and indirect, leading to inefficient allocation of resources (Jakobsen 2000). In cases where one would expect to observe the effect, however, scholars have found little support that policymakers act externally in response to it (Baum & Potter 2008, pp.52-53).

However, this does not preclude the possibility that policymakers respond internally to it through the acknowledgement of strategic errors within an organization. Elites are certainly avid consumers of media – particularly that of interest to their positions (Kunelius & Reunanen 2011). Kunelius and Reunanen argue that the media represent one resource of power in the relationships between actors in policy networks (Kunelius & Reunanen 2011). US elite decision-makers indicated in a survey that they consider newspapers to be as useful as classified information as sources of policy information (Avey & Desch 2014, p.238). These studies have evidenced how decision-makers take into account media coverage of actions in their decision-making and policy-making without assessing how it affects their contributions to institutional memory. The hypothesis that an international media source cue increases likelihood to record is rooted in the understanding that elites maintain a keen awareness of how their decisions are mediated (Gowing 1997, pp.203-205).

III. Methodology

Study Design Assumptions

In the design of this experiment, I assume non-interference. The treatment of one subject should not have been affected by the treatment of other subjects for several reasons. First, interviews with subjects took place in the respective offices of each subject rather than in a public area. Second, subjects were asked at the end of interviews and in follow-up emails to not discuss the study with others until the completion of data collection. Third, it is unlikely that subjects discussed the experiment with one another since interview questions were benign and, as elites in a leading military organization,

they likely had much more pressing issues to discuss. Fourth, treatment effects were embedded in the hypothetical scenarios so it was not obvious to the subject that other subjects received different scenarios. Fifth, I collected all treated and untreated scenarios so that no paperwork was left behind in subjects' offices. There were no issues with respect to noncompliance. All elites received the appropriate treatment or control. There was attrition on the part of one individual. That individual never received a treatment or control because the individual declined to participate in the experiment upon meeting for the interview.

Subject Recruitment

Subject recruitment required overcoming significant barriers to access to elites at one of the world's most restricted military organizations. To recruit elites to the study, I sent hundreds of emails and follow-up phone requests in order to schedule and often reschedule appointments with elites as their schedules changed. I traveled to the institutions across countries as indicated in Table 1 and experienced numerous security checks and questions to confirm my identity and objectives as a scholar. In accordance with IRB protocol, I began recruitment by first requesting and receiving email authorization from the public affairs offices of the NATO institutions.

I conducted random sampling to access elites at the first two institutions (NAC and MilCom). Beginning with the North Atlantic Council (NAC), I used publicly available email addresses on national delegation websites to contact all 28 national delegations and request interviews with the respective permanent representatives. I aimed at pre-empting concerns about my credibility as a scholar by including hyperlinks to my professional website and to a relevant publication in the signature of my email. In cases where there was no email address publicly available for a given delegation, I requested the email address of the permanent representative's secretary of that delegation from a different permanent representative's secretary. Following journalistic standards, I then followed up emails with phone calls to secretaries, beginning three days after the email request and continuing every three days after that until I either had an appointment or a firm decline. Upon request, I provided secretaries and assistants with my CV and identity

card so that they could confirm my identity and provide me access through security to NATO institutions.

For the Military Committee (MilCom), I gained access through contacts acquired at the respective national delegations. After having interviewed the permanent representatives and having met many of their secretaries in person, I called and emailed all 28 secretaries of the NATO permanent representatives in order to request the contact information of the assistants to the respective military representatives. I then called and emailed all 28 military representative assistants to schedule interviews with the representatives.

To access elites at the remaining NATO institutions, I had to use snowball sampling because the contact information was not publicly available for IS, IMS, ACO and ACT elites. The snowball occurred in one of three ways. First, a NAC or MilCom elite both provided the email address of a potential subject and agreed to let me use his or her name in the subject line of the interview request. Second, a NAC or MilCom elite provided an email introduction that allowed me to make the interview request to the potential subject. Third, a NAC or MilCom elite provided me with the email address of a public affairs officer in one of the four institutions and this officer then circulated my interview request to the respective elites in that institution.

Dates and Locations of Experiment on Subjects

Interview	Date	Institution	City	Country
1	2/6/2015	IS	Brussels	Belgium
2	2/9/2015	IS	Brussels	Belgium
3	2/9/2015	NAC	Brussels	Belgium
4	2/9/2015	NAC	Brussels	Belgium
5	2/9/2015	NAC	Brussels	Belgium
6	2/9/2015	NAC	Brussels	Belgium
7	2/9/2015	NAC	Brussels	Belgium
8	2/9/2015	NAC	Brussels	Belgium
9	2/9/2015	IS	Brussels	Belgium
10	2/10/2015	NAC	Brussels	Belgium

11	2/10/2015	IS	Brussels	Belgium
12	2/10/2015	NAC	Brussels	Belgium
13	2/11/2015	IS	Brussels	Belgium
14	2/11/2015	NAC	Brussels	Belgium
15	2/11/2015 and 3/12/2015	IS	Brussels	Belgium
16	2/11/2015	NAC	Brussels	Belgium
17	2/12/2015	NAC	Brussels	Belgium
18	2/12/2015	NAC	Brussels	Belgium
19	2/12/2015	NAC	Brussels	Belgium
20	2/12/2015	NAC	Brussels	Belgium
21	2/12/2015	NAC	Brussels	Belgium
22	2/12/2015 and 3/13/2015	NAC	Brussels	Belgium
23	2/12/2015	NAC	Brussels	Belgium
24	2/13/2015	NAC	Brussels	Belgium
25	2/13/2015	NAC	Brussels	Belgium
26	2/13/2015	NAC	Brussels	Belgium
27	2/13/2015	NAC	Brussels	Belgium
28	2/13/2015	NAC	Brussels	Belgium
29	2/13/2015	NAC	Brussels	Belgium
30	2/27/2015 and 3/26/2015	IS	Brussels	Belgium
31	3/3/2015	MC	Brussels	Belgium
32	3/3/2015	MC	Brussels	Belgium
33	3/3/2015	MC	Brussels	Belgium
34	3/3/2015	MC	Brussels	Belgium
35	3/3/2015	NAC	Brussels	Belgium
36	3/4/2015	MC	Brussels	Belgium
37	3/4/2015	SHAPE	Lille	France
38	3/4/2015	SHAPE	Lille	France
39	3/5/2015	SHAPE	Mons	Belgium
40	3/5/2015	SHAPE	Mons	Belgium
41	3/5/2015	SHAPE	Mons	Belgium
42	3/6/2015	SHAPE	Mons	Belgium
43	3/6/2015	SHAPE	Mons	Belgium

44	3/6/2015	SHAPE	Mons	Belgium
45	3/6/2015	SHAPE	Mons	Belgium
46	3/6/2015	SHAPE	Mons	Belgium
47	3/9/2015	NAC	Brussels	Belgium
48	3/9/2015	MC	Brussels	Belgium
49	3/9/2015	MC	Brussels	Belgium
50	3/9/2015	MC	Brussels	Belgium
51	3/9/2015	NAC	Brussels	Belgium
52	3/10/2015	MC	Brussels	Belgium
53	3/10/2015	MC	Brussels	Belgium
54	3/10/2015	MC	Brussels	Belgium
55	3/10/2015	MC	Brussels	Belgium
56	3/10/2015	MC	Brussels	Belgium
57	3/10/2015	MC	Brussels	Belgium
58	3/10/2015	MC	Brussels	Belgium
59	3/10/2015	IS	Brussels	Belgium
60	3/11/2015	NAC	Brussels	Belgium
61	3/11/2015	NAC	Brussels	Belgium
62	3/11/2015	IS	Brussels	Belgium
63	3/12/2015	MC	Brussels	Belgium
64	3/12/2015	MC	Brussels	Belgium
65	3/12/2015	IS	Brussels	Belgium
66	3/12/2015	IS	Brussels	Belgium
67	3/12/2015	IMS	Brussels	Belgium
68	3/12/2015	MC	Brussels	Belgium
69	3/12/2015	IS	Brussels	Belgium
70	3/13/2015	IS	Brussels	Belgium
71	3/13/2015	MC	Brussels	Belgium
72	3/13/2015 and 3/20/2015	IS	Brussels	Belgium
73	3/13/2015	IS	Brussels	Belgium
74	3/13/2015	MC	Brussels	Belgium
75	3/13/2015	MC	Brussels	Belgium
76	3/19/2015	ACT	Lisbon	Portugal

77	3/19/2015	ACT	Lisbon	Portugal
78	3/19/2015	ACT	Lisbon	Portugal
79	3/19/2015	ACT	Lisbon	Portugal
80	3/19/2015	ACT	Lisbon	Portugal
81	3/19/2015	ACT	Lisbon	Portugal
82	3/23/2015	ACT	Brussels	Belgium
83	3/23/2015	IMS	Brussels	Belgium
84	3/23/2015	MC	Brussels	Belgium
85	3/23/2015	MC	Brussels	Belgium
86	3/24/2015	IS	Brussels	Belgium
87	3/24/2015	IS	Brussels	Belgium
88	3/24/2015	IS	Brussels	Belgium
89	3/24/2015	IMS	Brussels	Belgium
90	3/24/2015	IMS	Brussels	Belgium
91	3/24/2015	IMS	Brussels	Belgium
92	3/25/2015	IS	Brussels	Belgium
93	3/26/2015	IMS	Brussels	Belgium
94	3/26/2015	IMS	Brussels	Belgium
95	3/26/2015	IMS	Brussels	Belgium
96	3/26/2015	ACT	Lisbon	Portugal
97	3/27/2015	IS	Brussels	Belgium
98	3/27/2015	MC	Brussels	Belgium
99	3/27/2015	MC	Brussels	Belgium
100	3/27/2015	MC	Brussels	Belgium
101	3/27/2015 and 4/2/2015	IS	Brussels	Belgium
102	3/27/2015	IS	Brussels	Belgium
103	3/31/2015	ACT	Norfolk	USA
104	4/2/2015	IS	Brussels	Belgium
105	4/2/2015	ACT	Lisbon	Portugal
106	4/6/2015	SHAPE	Mons	Belgium
107	4/7/2015	ACT	Lisbon	Portugal
108	4/8/2015	SHAPE	Mons	Belgium
109	4/9/2015 and 4/10/2015	IMS	Brussels	Belgium

110	4/17/2015	ACT	Rome	Italy
111	4/20/2015	ACT	Lisbon	Portugal
112	5/11/2015	SHAPE	Mons	Belgium
113	5/18/2015	IMS	Brussels	Belgium
114	5/26/2015	SHAPE	Mons	Belgium
115	5/28/2015	ACT	Norfolk	USA
116	6/4/2015	ACT	Norfolk	USA
117	6/4/2015	ACT	Norfolk	USA
118*	6/16/2015	IMS	Brussels	Belgium
119*	6/18/2015	IMS	Brussels	Belgium
120	7/24/2015	ACT	Norfolk	USA

Note: In cases where two dates are listed, limited time cut short the interview that began on the first date and it was therefore completed on the second date. As noted in Table 1, the experiments on subjects located in Norfolk, VA were conducted by email and interviews were conducted by phone. Subjects denoted with an asterix (*) also completed the experiment by email.

Demographic and Institutional Characteristics

Variable	Obs	Mean	Std. Dev.	Min	Max
age	120	52.88333	6.595368	35	67
gender	120	.0666667	.2504897	0	1
nationality	120	17.39167	8.964258	1	28
hypsc	120	.1416667	.35017	0	1
institution	120	3.95	1.699481	1	6
workfor	120	.5333333	.5009794	0	1
civmil	120	.4583333	.50035	0	1
fe	120	.4	.491952	0	1
currentyrs	108	2.822685	2.678715	0	15
totalyrs	109	7.354771	7.572966	0	54.5

Subjects ranged in age from 35-67 (Mean = 53, St.Dev.=6.6) and represented the nationalities of all 28 member states. Only 7% of the sample were women. At NATO, women are particularly underrepresented in leadership roles. In the sample, 54% of elites sampled served in civilian posts and 46% served in military posts. The most well represented nationalities were American (18%), British (11%) and French (8%). The US, UK and France are the largest contributors to the NATO budget and thus widely represented. Just as the top civilian (i.e. Secretary-General) and top military (ie. SACEUR) roles are reserved for a European and American respectively, many leading

secretariat posts had a traditional American, British or French nationality assigned to it. Elites had a wide range of total experience working in or for NATO, from zero years to 55 years (Mean=7, Std.Dev.=7.5).

Block Randomization

Block randomization involved 30 surveys for each treatment and 30 surveys with the placebo condition. I divided all 120 envelopes into six blocks such that each block had an equal number of treatment and control conditions. Within each block, I randomized the order of the envelopes based on an order produced by a randomizing command in Excel software. Randomly assigning treatments and the control in this way limited bias toward any one treatment. For each institution visited, I brought with me to the interview a stack of the randomized-ordered envelopes. This ensured that I was blind to treatment status.

Pre-test Questions

Each elite verbally answered the following pre-test questions before receiving treatment.

Are you considered civilian staff or military staff?

Are you employed by NATO, a nation or do you work as a VNC¹?

How many years have you worked in this position in NATO?

How many years have you worked in your lifetime in NATO?

Have you had field experience of at least three months in a NATO crisis management operation?

Prior to this, have you responded to a hypothetical scenario as part of a study before?

What is your nationality?

What is your gender?

What is your age?

These pre-test questions are subsequently used as control variables in analyses. These control variables included age, gender, nationality, whether or not the elite had ever responded to a hypothetical-scenario survey, current institution of employment, type of employer whether NATO or a member state, type of post, field experience in a NATO operation, years of experience in current position and total years of experience working in NATO.

¹ VNC stands for Voluntary National Contribution.

Survey Instrument as Treatment

Following pre-test questions, an elite received a survey with one of the following four paragraph-long hypothetical scenarios as treatment.

Treatment: International Staff

You have just identified a decision or action that the International Staff considers to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Treatment: United States

You have just identified a decision or action that the United States government considers to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Treatment: International Media

You have just identified a decision or action that the international media have considered to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Control: Placebo

You have just identified a decision or action that is considered to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Outcome Questions

Every survey listed the following questions and responses at the bottom of the page.

How likely would you be to record this for yourself or successors?

- 1 = Not at all likely
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely likely

How likely would you be to discuss this with your supervisor?

- 1 = Not at all likely
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely likely

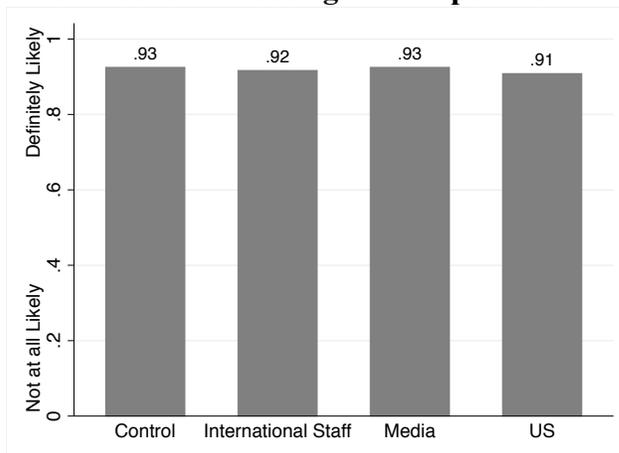
How likely would you be to discuss this with a close colleague?

- 1 = Not at all likely
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely likely

IV. Results

1. Overview of Treatment Effects

Likelihood of Discussing with Supervisor



Successor: Differences in Means across Treatments versus Control

mean sccsr, over(treated)

Mean estimation

Number of obs = 120

0: treated = 0
 1: treated = 1
 2: treated = 2
 3: treated = 3

Over	Mean	Std. Err.	[95% Conf. Interval]	
sccsr				
0	.8333333	.0437688	.7466667	.92
1	.85	.0458007	.7593101	.9406899
2	.8083333	.0474695	.714339	.9023277
3	.725	.0579214	.6103099	.8396901

. oneway sccsr treated, tabulate

Treatment	Summary of Q1 Successors (0-1 scale)		
	Mean	Std. Dev.	Freq.
0	.8333333	.23973165	30
1	.85	.25086059	30
2	.8083333	.26000111	30
3	.725	.31724841	30
Total	.80416667	.26957665	120

Source	Analysis of Variance			F	Prob > F
	SS	df	MS		
Between groups	.277083333	3	.092361111	1.28	0.2846
Within groups	8.37083333	116	.072162356		
Total	8.64791667	119	.072671569		

Bartlett's test for equal variances: chi2(3) = 2.7765 Prob>chi2 = 0.427

Supervisor: Differences in Means across Treatments versus Control
 mean sprvisr, over(treated)

Mean estimation

Number of obs = 120

0: treated = 0
 1: treated = 1
 2: treated = 2
 3: treated = 3

Over	Mean	Std. Err.	[95% Conf. Interval]	
colleague				
0	.8833333	.0260783	.8316957	.9349709
1	.85	.0390255	.7727256	.9272744
2	.9	.0283654	.8438336	.9561664
3	.7583333	.055558	.648323	.8683436

. oneway colleague treated, tabulate

Treatment	Summary of Q3 Colleagues (0-1 scale)		
	Mean	Std. Dev.	Freq.
0	.8833333	.1428366	30
1	.85	.2137513	30
2	.9	.1553638	30
3	.7583333	.3043034	30
Total	.8479166	.2181276	120

Source	Analysis of Variance				
	SS	df	MS	F	Prob > F
Between groups	.3598958	3	.1199652	2.62	0.0538
Within groups	5.302083	116	.0457076		
Total	5.661979	119	.0475796		

Bartlett's test for equal variances: chi2(3) = 21.1406 Prob>chi2 = 0.000

Joint Statistical Test – Seemingly Unrelated Regression

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. sureg (sccsr uscontrol)(colleague uscontrol)(sprvisr uscontrol)
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Seemingly unrelated regression

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
sccsr	60	1	.2764482	0.0370	2.30	0.1291
colleague	60	1	.2337051	0.0667	4.29	0.0383
sprvisr	60	1	.1488381	0.0031	0.19	0.6645

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sccsr						
uscontrol	-.1083333	.0713786	-1.52	0.129	-.2482329	.0315662
_cons	.8333333	.0504723	16.51	0.000	.7344094	.9322572
colleague						
uscontrol	-.125	.0603424	-2.07	0.038	-.2432689	-.0067311
_cons	.8833333	.0426685	20.70	0.000	.7997046	.9669621
sprvisr						
uscontrol	-.0166667	.0384298	-0.43	0.665	-.0919877	.0586544
_cons	.925	.027174	34.04	0.000	.87174	.97826

Cell Sizes across Source Cue Conditions on Recording for Self or Successors

Source Cue	N	Not at all Likely	Unlikely	Somewhat Likely	Very Likely	Definitely Likely
Placebo	30	0	3	1	9	17
<i>Proportion</i>		0%	10%	3%	30%	57%
IS	30	1	1	2	7	19
<i>Proportion</i>		3%	3%	7%	23%	63%
Media	30	1	1	4	8	16
<i>Proportion</i>		3%	3%	14%	27%	53%
US	30	2	2	7	5	14
<i>Proportion</i>		7%	7%	23%	17%	47%
Total	120	4	7	14	29	66
<i>Proportion</i>	<i>100%</i>	<i>3%</i>	<i>6%</i>	<i>12%</i>	<i>24%</i>	<i>55%</i>

Cell Sizes across Source Cue Conditions on Discussing with Supervisor

Source Cue	N	Not at all Likely	Unlikely	Somewhat Likely	Very Likely	Definitely Likely
Placebo	30	0	0	0	9	21
<i>Proportion</i>		0%	0%	0%	30%	70%
IS	30	0	0	1	8	21
<i>Proportion</i>		0%	0%	3%	27%	70%
Media	30	0	0	0	9	21
<i>Proportion</i>		0%	0%	0%	30%	70%
US	30	0	1	1	6	22
<i>Proportion</i>		0%	3%	3%	20%	73%
Total	120	0	1	2	32	85
<i>Proportion</i>	<i>100%</i>	<i>0%</i>	<i>1%</i>	<i>2%</i>	<i>27%</i>	<i>71%</i>

Cell Sizes across Source Cue Conditions on Discussing with Colleague

Source Cue	N	Not at all Likely	Unlikely	Somewhat Likely	Very Likely	Definitely Likely
Placebo	30	0	0	1	12	17
<i>Proportion</i>		0%	0%	3%	40%	57%
IS	30	0	1	4	7	18
<i>Proportion</i>		0%	3%	13%	23%	60%
Media	30	0	0	2	8	20
<i>Proportion</i>		0%	0%	7%	27%	69%
US	30	2	1	6	6	15
<i>Proportion</i>		7%	3%	20%	20%	50%
Total	120	2	2	13	33	70
<i>Proportion</i>	<i>100%</i>	<i>2%</i>	<i>2%</i>	<i>11%</i>	<i>28%</i>	<i>58%</i>

Balancing Statistics

Covariates	Mean per Treatment Group		
	IS	US	Control
Institutional affiliation	4.0	4.1	3.8
Age	54.2	52.9	52.2
Gender	.0	.1	.1
Nationality	16.5	18.7	15.7
Hypothetical Scenario	.2	.1	.1
Employed by NATO or nation	.5	.5	.6
Civilian or Military post	.5	.5	.5
Field Experience in NATO	.4	.3	.5
Years in Current NATO Post	2.5	2.8	3.4
Total Years working at NATO	7.9	7.5	6.7

2. International Staff Source Cue

Effect of International Staff Cue on Recording for Self or Successors

	Model 3		Model 4	
<i>International Staff Cue</i>	0.23	(0.51)	2.51	(2.15)
<i>Institution</i>	--	--	-.36	(0.44)
<i>International Staff Cue X Institution</i>	--	--	-0.69	(0.48)
<i>Age</i>	--	--	0.15**	(0.07)
<i>Gender</i>	--	--	-2.04	(1.39)
<i>Nationality</i>	--	--	0.03	(0.05)
<i>Hypothetical Scenario Experience</i>	--	--	2.35*	(1.22)
<i>Employer</i>	--	--	-1.92	(1.41)
<i>Civilian or Military Post</i>	--	--	-2.29**	(1.15)
<i>Field Experience in NATO operations</i>	--	--	0.79	(0.95)
<i>Years in current NATO post</i>	--	--	0.10	(0.22)
<i>Total Years working at NATO</i>	--	--	-0.03	(0.09)
<i>N</i>	60		51	
<i>Pseudo R²</i>	0.001		0.243	

Notes: Standard errors are in parentheses. * $p < .10$; ** $p < .05$; *** $p < .01$

Effect of International Staff Source Cue on Discussing with Supervisor

. regress sprvisr iscontrol

Source	SS	df	MS	Number of obs	=	60
Model	.001041667	1	.001041667	F(1, 58)	=	0.06
Residual	.935416667	58	.016127874	Prob > F	=	0.8003
				R-squared	=	0.0011
				Adj R-squared	=	-0.0161
Total	.936458333	59	.015872175	Root MSE	=	.127

sprvisr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
iscontrol	-.0083333	.0327901	-0.25	0.800	-.0739699 .0573032
_cons	.925	.0231861	39.89	0.000	.878588 .971412

3. US Source Cue

Effect of US Source Cue on Recording for Self or Successors

. regress sccsr uscontrol

Source	SS	df	MS	Number of obs	=	60
Model	.176041667	1	.176041667	F(1, 58)	=	2.23
Residual	4.585416667	58	.079058908	Prob > F	=	0.1411
				R-squared	=	0.0370
				Adj R-squared	=	0.0204
Total	4.76145833	59	.080702684	Root MSE	=	.28117

sccsr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
uscontrol	-.1083333	.0725989	-1.49	0.141	-.2536557 .0369891
_cons	.8333333	.0513351	16.23	0.000	.7305749 .9360918

	Model 9	Model 10
<i>US Cue</i>	-0.11 (0.07)	-0.13 (.08)
<i>Institution</i>	-- --	-0.05 (.04)
<i>Age</i>	-- --	.01 (.01)
<i>Gender</i>	-- --	-0.01 (.20)
<i>Nationality</i>	-- --	.00 (.00)
<i>Hypothetical Scenario Experience</i>	-- --	.05 (.12)
<i>Employer</i>	-- --	-0.36** (.14)

<i>Civilian or Military Post</i>	--	--	-0.03	(.10)
<i>Field Experience in NATO operations</i>	--	--	.01	(.10)
<i>Years in current NATO post</i>	--	--	-0.01	(.02)
<i>Total Years working at NATO</i>	--	--	.01	(.01)
<i>N</i>	60		53	
<i>Pseudo R²</i>	0.01		0.07	

Notes: OLS Regression Models. Standard errors are in parentheses. * $p < .10$; ** $p < .05$; *** $p < .01$

Effect of US Source Cue on Discussing with Colleague

	Model 5		Model 6	
<i>US Cue</i>	-0.68	(0.50)	-0.98	(0.64)
<i>Institution</i>	--	--	-0.38	(0.34)
<i>Age</i>	--	--	0.04	(.05)
<i>Gender</i>	--	--	-0.80	(1.32)
<i>Nationality</i>	--	--	0.01	(0.04)
<i>Hypothetical Scenario Experience</i>	--	--	1.04	(0.96)
<i>Employer</i>	--	--	-0.87	(1.05)
<i>Civilian or Military Post</i>	--	--	-2.13***	(0.82)
<i>Field Experience in NATO operations</i>	--	--	0.40	(0.77)
<i>Years in current NATO post</i>	--	--	-0.03	(0.13)
<i>Total Years working at NATO</i>	--	--	0.01	(0.04)
<i>N</i>	60		53	
<i>Pseudo R²</i>	0.01		0.10	

Notes: Ordered Logistic Analysis Models. Standard errors are in parentheses. * $p < .10$; ** $p < .05$; *** $p < .01$

. regress colleague uscontrol

Source	SS	df	MS	Number of obs	=	60
Model	.234375	1	.234375	F(1, 58)	=	4.15
Residual	3.27708333	58	.056501437	Prob > F	=	0.0463
Total	3.51145833	59	.059516243	R-squared	=	0.0667
				Adj R-squared	=	0.0507
				Root MSE	=	.2377

colleague	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
uscontrol	-.125	.061374	-2.04	0.046	-.2478533	-.0021467
_cons	.8833333	.0433979	20.35	0.000	.7964629	.9702037

Effect of US Source Cue on Discussing with Supervisor

. regress sprvisr uscontrol

Source	SS	df	MS	Number of obs	=	60
Model	.004166667	1	.004166667	F(1, 58)	=	0.18
Residual	1.32916667	58	.022916667	Prob > F	=	0.6714
Total	1.33333333	59	.02259887	R-squared	=	0.0031
				Adj R-squared	=	-0.0141
				Root MSE	=	.15138

sprvisr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
uscontrol	-.0166667	.0390868	-0.43	0.671	-.0949074	.0615741
_cons	.925	.0276385	33.47	0.000	.8696755	.9803245

Effect of US Source Cue on Americans versus Non-Americans

. reg sccsr uscontrol american american_uscontrol

Source	SS	df	MS	Number of obs	=	60
Model	.631458333	3	.210486111	F(3, 56)	=	2.85
Residual	4.13	56	.07375	Prob > F	=	0.0452
Total	4.76145833	59	.080702684	R-squared	=	0.1326
				Adj R-squared	=	0.0862
				Root MSE	=	.27157

sccsr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
uscontrol	-.05	.0768115	-0.65	0.518	-.2038718	.1038718
american	.02	.1330413	0.15	0.881	-.2465138	.2865138
american_uscontrol	-.35	.1881489	-1.86	0.068	-.7269075	.0269075
_cons	.83	.0543139	15.28	0.000	.7211962	.9388038

```
. reg colleague uscontrol american american_uscontrol
```

Source	SS	df	MS	Number of obs	=	60
Model	.326458333	3	.108819444	F(3, 56)	=	1.91
Residual	3.185	56	.056875	Prob > F	=	0.1379
				R-squared	=	0.0930
				Adj R-squared	=	0.0444
Total	3.51145833	59	.059516243	Root MSE	=	.23848

colleague	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
uscontrol	-.11	.0674537	-1.63	0.109	-.245126 .025126
american	.14	.1168332	1.20	0.236	-.0940451 .3740451
american_uscontrol	-.09	.1652271	-0.54	0.588	-.4209897 .2409897
_cons	.86	.047697	18.03	0.000	.7644515 .9555485

4. International Media Source Cue

Overview of Findings on International Media Source Cue

From analyses, the international media source cue showed no effect on any of the contributions to institutional memory. Evidence indicated no support for Hypothesis 3 when analyses were conducted without controls ($p=.71$) or with them ($p=.53$). This fits with the mixed record in the scholarship on the media's ability to play an independent role on policymakers' behavior. In regression analyses, several controls on the cue did affect elites' likelihood of recording. Age had a statistically significant effect ($p=.02$), at the $p<.1$ level, with older elites more likely to record. NATO employed elites appeared to be less likely to record than member state employed elites ($p=.02$). This may be due to the former placing greater value on their own internal assessments of errors and less value on those of outside sources like the media.

Why would the media not have any source cue effect at all? Those elites who received the control scenario could have implied that the error has already been reported in the media and therefore considered a *fait accompli*. Since military operations typically involve some casualties, elites may expect the media to cover these events and label them as problematic. Most political science scholarship portrays the media as a passive conduit by which elites pass on information to publics (Baum & Potter 2008, p.50). There exists a consensus that the CNN effect on policymakers' external behavior was over-stated (Gowing 1997, p.2011; Robinson 2005) but, as stated above, we know little about the effect on policymakers' internal behavior. These findings suggest that international media


```
. ologit sccsr mediacontrol institution age gender nationality hypsc workfor civmil fe currenty
> rs totalyrs
```

```
Iteration 0: log likelihood = -58.927783
Iteration 1: log likelihood = -50.126467
Iteration 2: log likelihood = -49.559329
Iteration 3: log likelihood = -49.557936
Iteration 4: log likelihood = -49.557936
```

```
Ordered logistic regression          Number of obs   =      53
LR chi2(11)                          =      18.74
Prob > chi2                            =      0.0659
Pseudo R2                              =      0.1590

Log likelihood = -49.557936
```

sccsr	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
mediacontrol	.4374053	.6992832	0.63	0.532	-.9331646	1.807975
institution	-.2781153	.2712698	-1.03	0.305	-.8097944	.2535638
age	.1299065	.0557943	2.33	0.020	.0205517	.2392612
gender	-.781662	1.103669	-0.71	0.479	-2.944814	1.38149
nationality	-.0386105	.0425141	-0.91	0.364	-.1219366	.0447156
hypsc	.3210837	1.17859	0.27	0.785	-1.98891	2.631077
workfor	-2.385837	1.008771	-2.37	0.018	-4.362992	-.4086816
civmil	-.7461352	.8997519	-0.83	0.407	-2.509617	1.017346
fe	.5727328	.7831979	0.73	0.465	-.9623069	2.107772
currentyrs	.1233082	.1473781	0.84	0.403	-.1655475	.412164
totalyrs	-.0284728	.0767173	-0.37	0.711	-.1788359	.1218904
/cut1	-.8430187	3.539598			-7.780504	6.094467
/cut2	1.027582	3.416547			-5.668726	7.723891
/cut3	1.696309	3.400848			-4.96923	8.361848
/cut4	3.648041	3.431425			-3.077428	10.37351

```
. regress sccsr mediacontrol
```

Source	SS	df	MS	Number of obs	=	60
Model	.009375	1	.009375	F(1, 58)	=	0.15
Residual	3.62708333	58	.06253592	Prob > F	=	0.7000
				R-squared	=	0.0026
				Adj R-squared	=	-0.0146
Total	3.63645833	59	.061634887	Root MSE	=	.25007

sccsr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
mediacontrol	-.025	.0645683	-0.39	0.700	-.1542474	.1042474
_cons	.8333333	.0456567	18.25	0.000	.7419416	.9247251

. regress colleague mediacontrol

Source	SS	df	MS	Number of obs =	60
Model	.004166667	1	.004166667	F(1, 58)	= 0.19
Residual	1.29166667	58	.022270115	Prob > F	= 0.6669
				R-squared	= 0.0032
				Adj R-squared	= -0.0140
Total	1.29583333	59	.021963277	Root MSE	= .14923

colleague	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
mediacontrol	.0166667	.0385315	0.43	0.667	-.0604625	.0937958
_cons	.8833333	.0272459	32.42	0.000	.8287948	.9378719

Effect of International Media Source Cue on Discussing with Supervisor

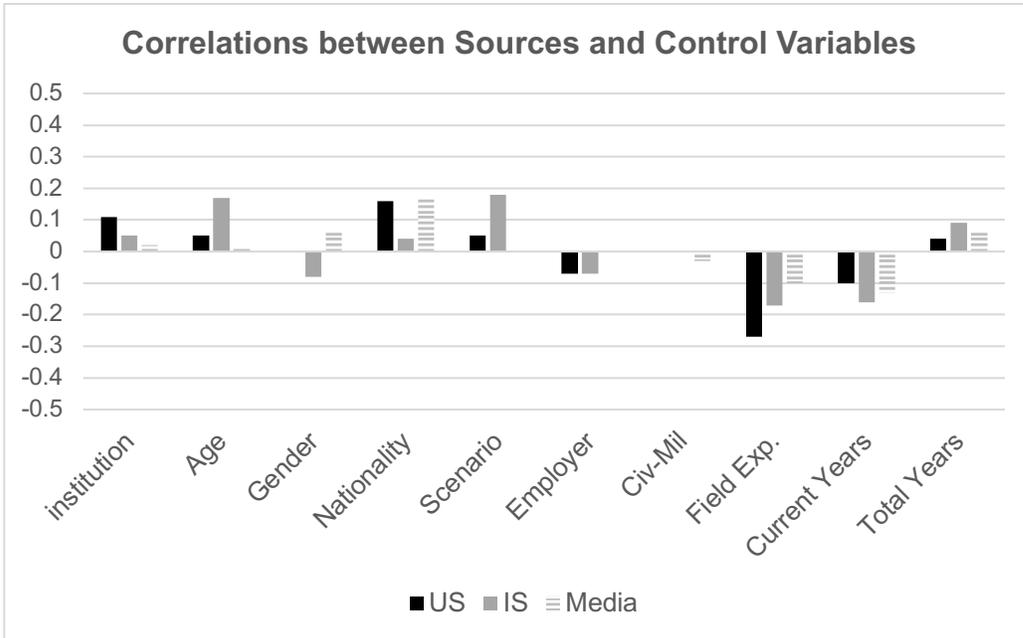
. regress sprvisr mediacontrol

Source	SS	df	MS	Number of obs =	60
Model	0	1	0	F(1, 58)	= 0.00
Residual	.7875	58	.013577586	Prob > F	= 1.0000
				R-squared	= 0.0000
				Adj R-squared	= -0.0172
Total	.7875	59	.013347458	Root MSE	= .11652

sprvisr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
mediacontrol	0	.0300861	0.00	1.000	-.0602238	.0602238
_cons	.925	.0212741	43.48	0.000	.8824153	.9675847

5. Check for Correlations

	US	IS	Media
Institution	0.11	0.05	0.02
Age	0.05	0.17	0.01
Gender	0	-0.08	0.06
Nationality	0.16	0.04	0.17
Hypothetical Scenario	0.05	0.18	0
Employer	-0.07	-0.07	0
Civ-Mil	0	0	-0.03
Field Experience	-0.27	-0.17	-0.1
Current Years	-0.1	-0.16	-0.13
Total Years	0.04	0.09	0.06



6. IRB Protocol as Pre-registration

██████████: OFFICE OF RESEARCH
INSTITUTIONAL REVIEW BOARD (IRB)
PAGE 1 OF 2

CONFIRMATION OF EXEMPT RESEARCH REGISTRATION

February 13, 2015

██████████
POLITICAL SCIENCE

RE: HS# ██████████ "*Learning in Crisis: A Study of Institutional Memory in NATO Crisis Management*"

The human subjects research project referenced above has been registered with the ██████████ Institutional Review Board (IRB) as Exempt from Federal regulations in accordance with 45 CFR 46.101. This exemption is limited to the described activities in the registered ██████████ IRB Protocol Narrative and extends to the performance of such activities at the sites identified in your ██████████ IRB Protocol Application. Informed consent from subjects must be obtained unless otherwise indicated below. ██████████ IRB conditions for the conduct of this research are included on the attached sheet.

Information provided to prospective subjects to obtain their informed consent should, at a minimum, consist of the following information: the subject is being asked to participate in research, what his/her participation will involve, all foreseeable risks and benefits, the extent to which privacy and confidentiality will be protected, that participation in research is voluntary and the subject may refuse to participate or withdraw at any time without prejudice.

Questions concerning registration of this study may be directed to the ██████████ Office of Research ██████████
██████████.

Level of Review:
Exempt Review, Category 2

██████████ Ph.D.
Chair, Institutional Review Board

Registration valid from 02/13/2015 to 02/12/2018
██████████ Approved: January 31, 2003

Determinations as Conditions of Exemption:

Informed Consent Requirements:

1. Signed Informed Consent Not Required
 - a. Study Information Sheet Required

e-APP Tracking #: 8611

APPLICATION FOR IRB REVIEW

[REDACTED]
Institutional Review Board

LEAD RESEARCHER: [REDACTED]
Electronic Submission Date: 12/19/14

HS#: _____
For IRB Office Use Only

TITLE OF THE STUDY: Learning in Crisis: A Study of Institutional Memory in NATO Crisis Management

A. LEVEL OF REVIEW

Select the required level of review for this protocol.

Exempt Registration - "virtually no risk":

Select the applicable exempt category(ies):

1. 2. 3. 4. 5. 6.

Expedited Review – no more than minimal risk:

Select the applicable expedited category(ies):

1. 2. 3. 4. 5. 6. 7.

Full Committee Review - greater than minimal risk

Type of Research: Biomedical Social/Behavioral

B. DEPARTMENT OR RESEARCH UNIT FOR THIS STUDY

Please check the applicable box below.

This study will be performed under the auspices of a Department (includes campus centers and school-based research units).

This study will be performed under the auspices of an Organized Research Unit.

List the name of the Department or ORU here: **Political Science**

C. DETERMINING WHETHER HIPAA REGULATIONS APPLY TO THIS STUDY

If the research involves the review of person-identifiable medical records, or the study will result in new information that is added to medical records, the research is using or creating Protected Health Information (PHI) and is subject to HIPAA Privacy Rule provisions.

This study does not involve the creation, use or disclosure of PHI.

D. STUDY TEAM MEMBERS

All individuals engaged in human subjects research must be listed here and in the protocol narrative.

e-APP Tracking #: 8611

M. DEPARTMENTAL OR ORGANIZED RESEARCH UNIT (ORU) APPROVAL

The Department Chair's signature is required if the study will be performed under the auspices of a Department (includes campus centers and school-based research units). If the Department Chair is a member of the research team on this application (including Faculty Sponsor), approval must be obtained from the next highest level of administrative authority [i.e., School Dean, Executive Vice Chancellor (the Vice Chancellor for Research signs on behalf of the EVC)].

The ORU Director's signature is required if the study will be performed under the auspices of an ORU. If the ORU Director is a member of the research team on this application (including Faculty Sponsor), approval must be obtained from the Vice Chancellor for Research.

Department or ORU Assurance Statement:

By signing below, I hereby confirm that I have read the IRB Application and Protocol Narrative and I certify that:

1. The research is appropriate in design (i.e., the research uses procedures consistent with sound research design, the study design can be reasonably expected to answer the proposed question, and the importance of the knowledge expected to result from the research is known).
2. The Lead Researcher (and Faculty Sponsor) is competent to perform (or supervise) the study.
3. All study team members have disclosed to the COIOC any personal financial interests in the research.
4. There are adequate resources and funds available to support performance of this research, including costs associated with subject injury.

Dec. 19, 2014

Typed Name of	Signature of	Date signed
_____ Department Chair/ORU Director	_____ Department Chair/ORU Director	

Survey

I. Pre-test Questions

(Questions to be read aloud)

- What is your rank?
- Is your position considered to be civilian or military?
- What is your nationality?
- What is your gender?
- What is your age?
- Do you work as a Voluntary National Contribution (VNC) or do you work for NATO?
- For which other NATO organizations have you worked in the past?
- Have you had field experience of at least three months for a NATO operation?
- Prior to this, have you responded to a hypothetical scenario as part of a study before?

II. Hypothetical Scenarios

(Subject will receive one of the following in a sealed blank envelope)

Scenario 1

You have just identified a decision or action that the International Staff considers to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Scenario 2

You have just identified a decision or action that the United States government considers to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Scenario 3

You have just identified a decision or action that the international media have considered to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

Scenario 4

You have just identified a decision or action that is considered to be a strategic error in an existing NATO operation. You know that the decision or action was an error because the actions led to an outcome that contradicted the strategic goals of the operation's mission. For example, the outcome may have involved significant civilian casualties, negatively affected political relations with certain states, excluded key actors from the operation or consisted of other negative consequences contradicting the mission.

III. Survey Questions

(Questions to be read aloud)

How likely would you be to record this for yourself or successors?

- 1 = Definitely not
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely

How likely would you be to tell no one about this?

- 1 = Definitely not
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely

How likely would you be to tell your supervisor about this?

- 1 = Definitely not
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely

How likely would you be to tell a close colleague about this?

- 1 = Definitely not
- 2 = Unlikely
- 3 = Somewhat likely
- 4 = Very Likely
- 5 = Definitely

V. References

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