

Walk Like an Egyptian: Identity Construction in Post-Conflict Bosnia-Herzegovina*

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Abstract

Attempts to strengthen national identities are common in multi-ethnic post-conflict states. However, scholars know little about the conditions under which national identity myths are accepted or rejected by individual members of different ethnic groups. Focusing on a newly-constructed national myth of pyramid discovery in Bosnia-Herzegovina, we analyzed belief formation and the myths effect on ethnic identity among Bosniaks and Croats in the context of a natural experiment of institution building. We find that members of ethnic groups with stronger ties to the state are more prone to accept such identity myths but that the myths effect on identity is proportional to pre-existing strength of ethnic identification. In contrast, we find little link between an exogenously imposed institution of integration and belief in the myth.

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1. Introduction

In 2005, the small Bosnian town of Visoko attracted attention of pharaonic proportions. An amateur archeologist Semir Osmanagic, a Bosniak who runs a metal shop in Houston, Texas claimed to have discovered a 772-foot-high pyramid which he believed lay beneath a hill overlooking the town. The pyramid is not only the worlds largest, Osmanagic claimed the Great Pyramid of Giza in Egypt rises 455 feet but also the oldest, at 12,000 years.⁴ The discoveries have been universally panned by professional archaeologists, who have dubbed the claims a travesty of science and Osmanagic and his fellow enthusiasts pyramidiots.”⁵ Yet international ridicule has failed to deter a wave of excitement among Bosniaks who see the pyramid as a symbol of Bosnian nationhood.

This paper examines the pyramid discovery as a case of national identity construction in a multi-ethnic post-conflict state. It offers an analysis of what causes individuals to accept or reject state-building identity myths such as a fallacious Bosnian pyramid. The results we report are part of a larger experimental study of Bosniak and Croat students from three different high schools in the Herzegovinian town of Mostar with students responding to survey questions on the purported pyramid discovery. We find that the consumption of such identity narratives varies based on an individuals degree of identification with the state. Specifically, we establish that nominally belonging to the ethnic group that identifies more strongly with the state, in this case the Bosniaks, is an important predictor of belief in the state-building narrative. However, such stories only palpably affect the identity of individuals who already strongly identify with the state, even before the introduction of

⁴This factual background is drawn from the following news and journal articles: John Bohannon, “Mad About Pyramids,” *Science*, Vol. 313, No. 5794 (2006), pp. 1718-1720; Craig Smith, “Some See a Pyramid to Hone Bosnias Image. Others See a Big Hill,” *The New York Times*, May 15, 2006; Ian Traynor, “Tourists Flock to Bosnian Hills but Experts Mock Amateur Archaeologists Pyramid Claims,” *The Guardian*, October 5, 2006; Colin Woodard, “Come See the Pyramids in Bosnia?” *Christian Science Monitor*, March 29, 2007; Vesna Peric Zimonjic, “Indiana Jones of the Balkans: The Great Pyramid of Bosnia,” *The Independent*, April 28, 2006.

⁵“Tourists Flock to Bosnian Hills but Experts Mock Amateur Archaeologists Pyramid Claims,” *The Guardian*, October 5, 2006.

the narrative. Groups that do not identify with the state, in this case the Croats, are in turn less likely to believe in such nation-building stories. Yet these groups' incredulity is tempered by their recognition of the potential instrumental importance of such narratives in the form of financial benefits for the state. We also examine the effect of institutions of integration that have been constructed in an attempt to bring the former warring groups together. Specifically, we take advantage of a natural experiment in institution-building in the divided city of Mostar: the creation of an integrated, multi-ethnic high school alongside two segregated, mono-ethnic ones. We nevertheless find that institutions of integration in this case, the integrated high school have only limited effects on an individual's acceptance of the pyramid myth. This finding is interesting because it runs counter to recent literature that purports the powerful effect of institutions on cooperative behavior and public goods contributions. Our results instead show that influencing beliefs about identity may require a higher threshold of time and institutional engagement.⁶

Our findings provide an interesting glimpse into the ways this controversial symbol of Bosnian national identity has been interpreted by the youth of two of the nations comprising modern-day Bosnia-Herzegovina. In that regard, they illustrate the potency of post-conflict identity construction and the complex ways in which institutions interact with underlying beliefs and ethnic affiliation.

Our paper proceeds as follows. In section 2, we discuss the pyramid discovery in more detail, consider the extent to which the existing theoretical literature predicts the variation in response to a phenomenon such as the pyramid craze, and provide our working hypotheses. In section 3, we offer background on the methodology and the survey instrument, including the specific four questions that were asked in regards to the pyramid. In section 4, we present our results. In section 5 we offer concluding remarks, along with implications of our findings.

⁶References omitted to ensure anonymity for review purposes.

2. The Pyramid Discovery and What the Literature Tells Us About It

The alleged pyramid was discovered in the small Central Bosnian town of Visoko in 2005. Shortly after the discovery of the main pyramid, Semir Osmanagic metal entrepreneur who has coined himself as Bosnias Indiana Jones identified four more potential pyramids in the surrounding area, giving them names such as “Moon” and “Dragon.” (He has renamed the original hill the Pyramid of the Sun.⁷) Though scientists offer a simple geologic explanation for the hills shape and point out that in any case, humans were not even building huts 12,000 years ago the pyramids of Egypt are approximately 5,000 years old the discovery quickly captured the publics imagination.

In addition to an explosion of tourism in the formerly sleepy town, which started seeing up to 5,000 visitors per day and offers pyramid T-shirts and pyramid pizza, the discovery hit a nationalist nerve in the former war zone. To many, the pyramids were seen as a symbol of Bosnian nationhood, which was denied by Serbian propaganda during the 1990s civil war and which has few tangible signs extant. (By contrast, there are numerous symbols of Croatian nationhood within present-day Bosnia-Herzegovina, including the ruins of a 14th-century castle sitting on top of the same hill as the “Pyramid of the Sun.) Consequently, numerous Bosniak politicians have lined up behind Osmanagic to support the excavation effort, including the former Bosniak member of the Bosnian-Herzegovinian presidency, Sulejman Tihic. A Visoko official even went so far as to suggest that academic critics of the findings be denied access to research locations and have their degrees revoked.⁸ Meanwhile,

⁷This factual background is drawn from the following news and journal articles: John Bohannon, “Mad About Pyramids,” *Science*, Vol. 313, No. 5794 (2006), pp. 1718-1720; Craig Smith, “Some See a Pyramid to Hone Bosnias Image. Others See a Big Hill,” *The New York Times*, May 15, 2006; Ian Traynor, “Tourists Flock to Bosnian Hills but Experts Mock Amateur Archaeologists Pyramid Claims,” *The Guardian*, October 5, 2006; Colin Woodard, “Come See the Pyramids in Bosnia?” *Christian Science Monitor*, March 29, 2007; Vesna Peric Zimonjic, “Indiana Jones of the Balkans: The Great Pyramid of Bosnia,” *The Independent*, April 28, 2006.

⁸Bohannon, “Mad About Pyramids,” 1720.

the Bosniak public appears from news reports to believe the pyramids are genuine and to attach nationalist significance to their discovery. A local man who lost his leg during the war and who is one of Osmanagics volunteer excavators told the New York Times, We are changing the image of the whole country. Were showing Bosnia in a good way. Osmanagic himself said he came to the site to protect the cultural heritage of the small country that suffered so much.⁹ He also said, “Once you show that you respect your past, people respect you more.”¹⁰

The total fabrication of a pyramid and the political endorsement of that myth may seem bizarre at first glance, but the constructivist literature on identity formation tells us otherwise.¹¹ Benedict Andersons renowned thesis on nationalism argues that almost all communities are imagined. This process of imagining frequently involves the construction of a shared history for a nation that might not otherwise be interconnected.¹² And, as Eric Hobsbawm among others has averred, this construction of history is often tantamount to mythmakingit involves the creation of an ancient past beyond effective historical continuity, either by semi-fiction or by forgery.”¹³ Although the degree of falsehood of this particular myth is perhaps unusualmyths that are more stylized than false, such as the historical continuity of ceremonies associated with the British monarchy, appear more common.¹⁴

⁹“Zimonjic, “Indiana Jones of the Balkans.”

¹⁰Craig Smith, “Some See a Pyramid.

¹¹A general definition of constructivism can be found in Kanchan Chandra, “Introduction: Constructivist Findings and their Non-Incorporation, APSA-CP: Comparative Politics Section Newsletter, Vol. 12, No. 1 (Winter 2001), pp. 7-11.

¹²Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 2006 (1983)), pp. 6, 145. Anderson illustrates this tendency with the example of the Pilgrim tradition in the United States, which has salience to Italian immigrants who came across the Atlantic hundreds of years later.

¹³Eric Hobsbawm, Introduction: *Inventing Traditions*, in Eric Hobsbawm and Terrence Ranger, eds., *The Invention of Tradition* (Cambridge, U.K.: Cambridge University Press, 1984), p. 7.

¹⁴David Cannadine, “The Context, Performance, and Meaning of Ritual: The British Monarchy and the ‘Invention of Tradition, c. 1820-1977, in Eric Hobsbawm and Terrence Ranger, eds. *The Invention of Tradition* (Cambridge, U.K.: Cambridge University Press, 1984), pp. 101-164. Anthony

constructivists tell us that a symbol of nationhood unsupported by the facts is not in itself extraordinary.

If state-building identity myths are common, what causes their acceptance or rejection at the individual level? On this question the constructivist literature provides less guidance. Indeed, constructivists have been criticized for an elitist approach to national identity formation.¹⁵ The typical “invented tradition involves a group of clever and purposive elites foisting a deception on a monolithic public that is only too willing to accept the ruse.¹⁶ If all ordinary individuals buy into the myth, then there is no variation in myth acceptance to study. On the other hand, a contrasting account from Lisa Wedeen seems to suggest that almost no one believed the fanciful myths of the so-called “cult of Asad, including claims that Syria’s leader was the state’s “premier pharmacist.¹⁷ If Wedeen is correct, then there is virtually no within-society variation in her story either.¹⁸

Other constructivists, such as Paul Brass, acknowledge that “elites are limited and constrained by the cultures of the group they hope to represent. He views the construction of national symbols as a function of (1) elite action, (2) inter-group relations, (3) political organizations, and (4) “the influence of government policies.¹⁹ Therefore, ethnicity, institutions, and state policy are all important variables affecting the public reaction to a given

D. Smith criticizes constructivists’ frequent identification of myths which are actually not too far from historical truth (*The Nation in History*, p. 55). But for a rare example of a set of myths which are entirely false, and which are known to be false by their adherents, see Lisa Wedeen, *Ambiguities of Domination: Politics, Rhetoric, and Symbols in Contemporary Syria* (Chicago: University of Chicago Press, 1999).

¹⁵Smith, “*The Nation in History*,” p. 61.

¹⁶See, for example, Cannadine, *The Context, Performance, and Meaning of Ritual*, p. 102: “The mass of the population may indeed have become better educated, but they have not, as a result, lost their liking for the secular magic of monarchy.”

¹⁷Wedeen, “*Ambiguities of Domination*,” Chapter 1, especially p. 1.

¹⁸Wedeen’s seminal work provides an excellent macro-level context to which our research, focused on the individual consumer of identity myths, can be situated.

¹⁹Paul R. Brass, “Elite Groups, Symbol Manipulation, and Ethnic Identity among the Muslims of South Asia,” in David Taylor and Malcolm Yapp, eds., *Political Identity in South Asia* (London:

myth. Even according to Brass, however, individual non-elites have little agency. In his account, the mass-level variables mainly determine the consequences of a myth once accepted by the public whether, for instance, it will contribute to intergroup violence or intra-group divisions.²⁰ His dependent variable is not ours: we focus on the role of ethnic affiliation and institutions on whether individuals will accept the myth in the first place.

The Bosnian case also has several characteristics which the theoretical lens of constructivism suggests should make it especially likely to experience ahistorical mythmaking. First, the recent Bosnian-Herzegovinian state has come on the heels of a devastating civil war. Frequently such societal upsets both create demand for and lower the supply of invented traditions. Second, the new regime has taken the form of a consociational democracy, which can be particularly prone to ethnic identity dissipation because the various groups are explicitly set up to compete with each other on the same political stage. In these situations it is not uncommon to see groups engage in the codification of idioms in order to distinguish themselves. Finally, many Bosniaks are still traumatized from the wartime propaganda and continue to feel their national identity is threatened with national identity construction and its attendant mythmaking being particularly apt across all ethnic groups in contemporary Bosnia.

The extant literature, then, is ambiguous on the causes of individual-level myth acceptance or rejection. From the literature we gain a sense that ethnic ties to the state and institutions, including institutions formed for the express purpose of integration, may shape individual attitudes. But we cannot be sure of the extent to which these variables matter or whether one matters more than the other. Our survey research offers a unique opportunity to close this gap. The key questions relevant to this project are as follows:

Curzon Press, 1979), pp. 43, 67. See also Brass, *Language, Religion, and Politics in North India* (Cambridge, U.K.: Cambridge University Press, 1974).

²⁰Brass, "Elite Groups, p. 67.

- (1) Are ethnic groups that identify more closely with the state more receptive to state-building identity narratives than ethnic groups that identify less closely with the state?
- (2) Do institutions of integration make the groups that have been resistant to state-building narratives more receptive to them?

This paper addresses these questions by testing the following three hypotheses in the divided city of Mostar in Bosnia-Herzegovina:

- (1) Bosniak students, as the group which identifies more with the state, will be more likely to believe in the pyramid narrative than Croat students, irrespective of whether they attend a segregated or an integrated school.
- (2) Bosniak students whose ethnic identity is important to them are more likely to believe the pyramid narrative than other Bosniak students. Conversely, Croats whose ethnic identity is important to them are less likely to believe the pyramid narrative than other Croats. (Importance of ethnic identification is proxied by mosque or church attendance. Therefore, more frequent mosque attendance should be correlated with more belief in the pyramid narrative, and more frequent church attendance with less belief in that narrative.)
- (3) Croats attending the integrated school are more likely to be receptive to the pyramid narrative than Croats attending the segregated school.

3. Methodology and Hypotheses

As indicated above, the sampling of the three high schools where we conducted the survey revolved around a natural experiment. After the war, the city of Mostar had four general education high schools called gimnazija two of which were in the Croat-majority western part of town and the remaining two of which were in the Bosniak-majority eastern part of town. By a February 2004 Cantonal Judicial Decision, which provided legal affirmation to work that had started in the summer of 2003, one of the Croat secondary schools (Fra. Dominik Mandić Gymnasium) was administratively merged with one of the Bosniak secondary

schools (First Gymnasium) in the formers premises. Indeed, the way the international community advised the undertaking of the merger of the two schools had quasi-experimental components, reducing concerns about selection bias. More specifically, because the Croat schools premises could not afford the doubling of its students all at once, in September 2004 roughly 200 Bosniak students constituting the entire sophomore and junior class of the all-Bosniak (First Gymnasium) high school joined the 300 Croat students already attending the all-Croat (Fra. Dominik Mandic Gymnasium) high school.

It was not until the academic year 2005-2006 that a freshman and sophomore class from the all-Bosniak school was moved into the building. This merger created a Bosniak-Croat integrated school, leaving the city with two segregated high schools one mono-ethnic Bosniak (Second Gymnasium) and one mono-ethnic Croat high school (Fra. Grge Martica Gymnasium).²¹ One could argue that this was as close to randomized as one could get in a real-world setting: There was no substantial possibility for selection bias, as the first set of students who joined the school (sophomores and juniors) had no option to register or move to either of the other two mono-ethnic gymnasia. A possibility for selection bias existed with the incoming class of freshmen, who could choose to attend the integrated school or their mono-ethnic school of preference, which is why they were left out of the sample of students we worked with. There was no such option for the Bosniak and Croat upperclassmen, so the present experiment focused on this population of subjects. We recruited individuals who were in the sophomore incoming class in September 2004 and rising seniors at the time of the experiment in late May/June 2006, ensuring no possibility of selection bias. The institutional setup of our experiment thus involves rising seniors from the three schools: the integrated gymnasium and the two remaining mono-ethnic gymnasia.

It should be made clear that though the students in the integrated school are housed in the same building, they study in separate classrooms. That is because the Bosnian educational system allows for three curricula taught in Bosnian, Croatian or Serbian. The difference between the integrated and mono-ethnic schools is that the former allows for

²¹Interview with Matthew Newton, OSCE Education Officer, Regional Office Mostar, February 2006.

shared facilities (such as the library, school yard, sports hall, and IT lab); a joint student council of 8 Croat and 8 Bosniak students that meets on a weekly basis to organize joint activities (art workshops, cleaning up the park, community service, etc.); a joint school board with a total of 3 Croat and 3 Bosniak Members (2 teachers, 2 parents and 2 school trustees); as well as joint school administration (one school director, one secretary, one accountant, one registry book, one school bank account).²² Though this may not be considered a fully integrated school, as the students study in separate classrooms, it is the closest to an integrated institutional setting in education in Bosnia-Herzegovina.

In order to ensure that students allocation to the mono-ethnic and integrated school- which we clearly did not supervise indeed approximated random assignment, we had to look beyond the documented and declared lack of self-selection in joining the integrated school, to show that there were no relevant pre-existing differences between the students attending the two Bosniak high schools (as compared to each other) and those attending the two Croat schools (as compared to each other).

By the time we got to the field the integrated school was already operational and we had no access to previous student records. Because the students had already been exposed to different institutional environments, any comparison of student characteristics (e.g. academic performance or inter-ethnic attitudes) would likely suffer from post-treatment bias. Instead, we focused on predetermined characteristics. Table 1 represents the comparison of parental income, the most important socio-economic characteristic (correlated with parental education and occupation) and parental frequency of worship, measured by religious service attendance, as the most relevant attitudinal proxy for the intensity of parents ethno-religious identification. In addition, we present a comparison of students aptitude as measured by

²²Gymnasium Mostar: Mostars Other Landmark, Reconstruction and Revitalization Efforts Overview, OSCE Mission to BiH, January 2005.; Overview of Two Schools Under One Roof, OSCE Mission to BiH, May 2005. Report on Implementation of the Interim Agreement on Accommodation of Specific Needs and Rights of Returnee Children, Coordination Board for the Implementation of the Interim Agreement on Returnee Children, March 2005.

Table 1. Relevant covariates by institution and ethnicity

	Croat		Bosniak	
	Segregated	Integrated	Segregated	Integrated
Parental income				
Mean	1255.53	1320.55	736.75	1079.89
[SD]	[750.09]	[817.92]	[673.03]	[419.04]
T-test	p=0.69		p=0.002	
Kolmogorov-Smirnov test	p=0.50		p=0.01	
Parental worship frequency				
Mean	1.68	1.66	1.35	1.11
[SD]	[0.80]	[0.82]	[1.06]	[1.06]
T-test	p=0.90		p=0.25	
Kolmogorov-Smirnov test	p=1.00		p=0.81	
Math performance				
Mean	3.01	2.49	2.85	3.14
[SD]	[1.04]	[1.09]	[0.94]	[1.10]
T-test	p=0.02		p=0.14	
Kolmogorov-Smirnov test	p=0.03		p=0.55	

mathematics grades, selected as the most valid measure available and least likely to change in a short period of time given the structure of the local curriculum.

The comparison of the relevant covariates²³ reveals no difference in socio-economic status or intensity of ethnic identification among Croat students from the different schools. The difference in aptitude among Croat students from the different schools is significant at the 5% level. There was no statistically significant difference between the Bosniak students from the different schools, with the notable exception of parental income levels, which were higher for students attending the integrated school. Based on these differences, our analysis below includes controls for the distribution of income and for math performance. Finally, our comparison also revealed that as a whole, Croat and Bosniak students differ regardless of which school they attend. However, this was to be expected given that this is a real-world setting, where ethnic groups do not enjoy complete equality. Even if baseline preferences towards identity narratives are a function of parental socioeconomic conditions, our design

²³We tested for the difference across Croat students attending the segregated versus the integrated school using the t-test for the comparison of means and the Kolmogorov-Smirnov nonparametric test for the equality of distributions (to account for the possibility of non-normal distribution of characteristics). The same analysis was performed for the Bosniak students.

still affords accurate measurement of treatment effects of institutions. In other words, even if, for instance, Croats are more resistant to identity narratives because they are on average better off than Bosniaks, the random assignment of subjects ensures an accurate test of whether they will be more or less resistant in the presence of institutions of integration.

If the results of the experiment were to demonstrate that the Croat students attending the integrated school are more persuaded by the identity narrative than the Croat students in the mono-ethnic school, it would be plausible to assert that it was due to the institutional effect of integration, and not due to a pre-existing student predisposition to interact favorably with members of other ethnic groups.

This study's methodology and research instruments were approved by our institutions Committee on the Use of Human Subjects in Research. Since the participants were 17 years old, written consent was obtained from their guardians. Our sample of subjects consisted of 244 randomly selected students from the three participating high schools: the integrated school (Mostar Gimnazija) as well as the Bosniak and Croat segregated schools (Druga Gimnazija and Fra. Grge Martica Gimnazija respectively). Students were chosen using a random number generator from the respective school rosters, and more than 78% of selected students agreed to participate, with the remaining study sample consisting of randomly chosen alternates. There were no instances of attrition all of the participants who consented to participating fully participated. We administered a survey instrument in the respective local languages (Bosnian and Croatian), collecting information on each participants age, gender, school performance, religiosity, ethnic and economic background among others. It was in this instrument that we posed four questions specific to the Visoko pyramid. Those questions, featured in the analysis below, were as follows:

- (1) Did you hear about the possible discovery of a pyramid in Visoko? (Yes/No)
- (2) Do you believe that it is a real pyramid? (Yes/No);
- (3) Do you think that such a discovery will be important for Bosnia-Herzegovina? (Yes/No); If yes, in what way?

- (4) Will this discovery have any impact on your identity? (Yes/No); If yes, in what way?

4. Results

Of the 244 students surveyed, 227 responded to the pyramid questions. The 17 who did not respond (7% of the total sample) were all students from the segregated schools, with students from the integrated school all opting to respond to the pyramid questions. From those 17 students that did not respond to the pyramid questions, 9 were from the segregated Bosniak school (constituting 13.6% of the total of 66 survey participants from that school) and 8 were from the segregated Croat school (constituting 12.9% of the total of 62 survey participants from that school) suggesting that there was no systematic ethnicity effect driving the choice behind responding to the pyramid questions. However, there appears to be an institutional effect, with students from the integrated school being more responsive than those from the segregated schools. Of the 227 who did respond, 18 were excluded from the analysis because they did not self-identify as ethnically Croat or Bosniak.²⁴ Also, 6 students who responded to the pyramid question declared not knowing about it and were thus excluded from the analysis as well. These exclusions leave 203 students in the sample.

4.1. Ethnicity, Institutions and Belief in the Pyramid

A basic bivariate analysis offers support for the first hypothesis that ethnicity plays a significant role in determining the perceived credibility of the identity narrative. The group that identifies with the state (Bosniaks, as self-identified by the students and confirmed by choice of curriculum and parents ethnicities) was more receptive to the narrative than the minority group (Croats, also self-identified and confirmed as above), with 88% of Bosniaks believing

²⁴13 of those were in the integrated school; 3 in the Croat segregated school and 2 in the Bosniak segregated school.

the pyramid is real as compared to 31% of Croats (z-test for proportions, $p < 0.0001$).²⁵ Ethnicity also plays a role in beliefs about the pyramids importance and identity. Only 25% of Bosniaks believed the discovery of the pyramid had an effect on their identity not many, but still significantly higher than the 8% of Croat respondents who believed the pyramid discovery affects their identity (z-test, $p = 0.003$).²⁶ It is interesting to note that though the Croats overwhelmingly stated that they do not consider the pyramid to be real or to affect their identity in any way, they still believed it was important, with 79% of respondents saying so, as compared to 97% of Bosniak respondents (z-test, $p = 0.0001$).²⁷

Looking at the role of institutions, we found no statistically significant evidence that they play a role in determining the respondents belief that the pyramid was real, that it was important, or that it had any effect on their identity. Specifically, 63% of respondents in segregated schools believed the pyramid was real as compared to the same percentage in the integrated school (z-test, $p = 0.99$); 87% in segregated versus 91% in the integrated school believed it was important (z-test, $p = 0.39$); and 14% in segregated versus 22% in the integrated school believed it had an effect on their identity (z-test, $p = 0.14$).

Among Bosniaks, we find that institutions of integration had no effect on the belief of whether the pyramid was real, with 85% of respondents in segregated schools and 89% in the integrated school stating they believed the pyramid was real (z-test, $p = 0.52$). However, the pyramid had more significant effects on the Bosniaks identity in the integrated (33%) than in the segregated schools (19%) (z-test, $p = 0.09$). Similarly, 100% of Bosniaks in the integrated

²⁵If we take strict definitions of Bosniaks and Croats, requiring both parents to have the same ethnicity, the results are slightly stronger for the Bosniak side. 90% of Bosniaks think the pyramid is real, as opposed to 10% who think it is fake; and 71% of Croats think it is fake, as opposed to 29% who think it is real (z-test, $p < 0.0001$).

²⁶If we take strict definitions of Bosniaks and Croats, requiring both parents to have the same ethnicity, the results are slightly stronger for the Bosniak side. 26% of Bosniaks think the discovery of the pyramid has an effect on their identity, versus 9% of Croats (z-test, $p = 0.004$).

²⁷If we take strict definitions of Bosniaks and Croats, requiring both parents to have the same ethnicity, the results are slightly stronger for the Bosniak side. 96% of Bosniaks think the pyramid is important, as opposed to 78% of Croats (z-test, $p < 0.0001$).

school thought the pyramid was important, compared to 93% in the segregated school (z-test, $p=0.04$). Looking at Croats, the institutions appear to have had no statistically significant effect on students beliefs in the pyramid, its effects on their identity or its overall importance.²⁸

Our bivariate results suggest that ethnic identity better explains pyramid attitudes than institutions of integration. To probe this finding further, in addition to the self-identified indicator of ethnicity, we introduce a behavioral measure of the intensity of ethnic identification: worship frequency. In the divided city of Mostar, religiosity is arguably a proxy for the strength of ethnic identification as this is the dominant cleavage of ethnic differentiation.²⁹ For Croats, this is measured as frequency of church attendance, while for Bosniaks identity intensity is measured as frequency of mosque attendance. We use a series of probit models with three dichotomous dependent variables of interest: (1) the belief that the pyramid is real, (2) whether students consider it important and (3) whether it actually affects their identity. The initial models only involve the independent variables of interest, ethnicity and institutions of integration. We then add control variables identified through the analysis above as potentially relevant factors: students aptitude (proxied by their math GPA), their gender, and their socioeconomic status (proxied by parental income).

4.2. Belief in the Pyramid

As predicted by our first hypothesis, being Bosniak is a main determinant of belief in the pyramid. As Table 2 indicates, Bosniaks were 57% more likely to believe that the pyramid is real than their Croat student counterparts (the result is statistically significant, $p<0.001$).

²⁸Among Croats, 36% in the segregated school versus 25% in the integrated school believed the pyramid is real (z-test, $p=0.29$); 80% in the segregated school versus 78% in the integrated school thought it was important (z-test, $p=0.78$); 9% of students in the segregated school and 8% in the integrated school stated that the pyramid had an effect on their identity (z-test, $p=0.92$).

²⁹Furthermore, attendance at a church or a mosque is also correlated with individuals' rejection of communist or other previously-held non-nationalist beliefs. As such, religious attendance is a good proxy for the strength of ethnic identification not only as a distinct practice from members of the other group but also as a transformative practice in regards to the less nationalist past.

Table 2: Determinants of Belief in the Pyramid

	I Marginal effect (S.E.)	II Marginal effect (S.E.)	III Marginal effect (S.E.)	IV Marginal effect (S.E.)	V Marginal effect (S.E.)
Bosniak	0.569*** (0.059)	0.458*** (0.146)	0.425*** (0.160)	0.459*** (0.146)	0.431*** (0.162)
Mosque worship		0.096 (0.071)	0.115 (0.748)	0.095 (0.072)	0.107 (0.074)
Church worship		-0.004 (0.069)	-0.028 (0.075)	-0.005 (0.068)	-0.034 (0.075)
Income			0.004 (0.006)		0.043 (0.060)
Female			-0.108 (0.081)		-0.124 (0.082)
Math performance			0.654* (0.353)		0.065* (0.035)
Institutions of integration				-0.015 (0.079)	-0.066 (0.084)
N	197	193	183	193	183

Note: ***significant at 1%, **significant at 5%, *significant at 10%. All models are probit analysis, with robust standard errors. Marginal effects reported with s.e. in parentheses (X variables set at a mean or a median in the case of dichotomous variables).

Also, as predicted by our second hypothesis, the strength of ethnic identification, as proxied by worship strength, may have a differential effect on the belief that the pyramid is real. Higher worship frequency at a mosque appears to be associated with belief in the discovery, while higher worship frequency at a church has the opposite effect. However, these results are not statistically significant. Even after introducing relevant controls gender, math GPA and parental income being Bosniak still increased the propensity to believe that the pyramid is real by 43% (the result is statistically significant, $p=0.008$). The trend in the effect worship has on the belief in the pyramid remains the same as identified above, pointing in opposite directions for Bosniaks and Croats, but playing no statistically significant role.

Evaluating the role of institutions of integration, we find that there is no statistically significant effect on the level of belief in the pyramid between students attending the integrated versus those attending the segregated schools. Even when examining the role of integration on Bosniaks and Croats separately, we find no statistically significant institutional effect on beliefs.

Table 3: Determinants of Pyramid's Effect on Identity

	I Marginal effect (S.E.)	II Marginal effect (S.E.)	III Marginal effect (S.E.)	IV Marginal effect (S.E.)	V Marginal effect (S.E.)
Bosniak	0.171*** (0.053)	-0.023 (0.129)	-0.061 (0.126)	-0.036 (0.130)	-0.067 (0.126)
Mosque worship		0.048 (0.034)	0.053 (0.034)	0.061* (0.034)	0.059* (0.034)
Church worship		-0.074 (0.065)	-0.082 (0.059)	-0.068 (0.066)	-0.078 (0.058)
Income			0.005 (0.003)		0.004 (0.003)
Female			-0.012 (0.062)		-0.002 (0.062)
Math performance			0.055** (0.024)		0.054** (0.024)
Institutions of integration				0.0896* (0.054)	0.048 (0.056)
N	185	183	175	183	175

Note: ***significant at 1%, **significant at 5%, *significant at 10%. All models are probit analysis, with robust standard errors. Marginal effects reported with s.e. in parentheses (X variables set at a mean or a median in the case of dichotomous variables).

4.3. Pyramids Effect on Identity

Examining the pyramids effect on identity (Table 3), we initially find that being Bosniak was associated with a 17% higher probability of believing that the pyramid affects ones identity as opposed to being Croat. However, once we introduced the variables that proxy the strength of ethnic identification, that finding disappears. With all the relevant controls introduced, it appears that the Bosniak effect was due to omitting a more relevant determinant: mosque attendance. Bosniaks who attended mosque more frequently were more likely to believe that the pyramid discovery affects their identity (statistically significant, $p=0.088$). The effect of church attendance was, as predicted, opposite in direction and roughly the same in magnitude, though not statistically significant. Looking at the role of institutions of integration, we see that integration has a weak effect, with students at the integrated school being 9% more likely to state that the discovery of the pyramid has an effect on their ethnic identity (statistically significant, $p=0.10$).

Separating the dataset by ethnicity shows that the statistically significant result is driven by the Bosniaks, for whom being in the integrated school resulted in a 19% increase in declaring that the pyramid has an effect on their identity. There was no statistically significant difference in Croat students attending the integrated school versus those attending the segregated school. Once we introduce the relevant controls, the institutional effect on the Bosniak students decreases to 9% and becomes statistically insignificant. Interestingly, in this analysis mosque attendance dominates as the most important determinant of the pyramids effect on identity. This suggests that for the constructed narrative to have an effect on identity, one must not only belong to the dominant group, but also strongly identify with it. Additionally, institutions may make only a marginal difference in this process.

4.4. Pyramids Importance

When analyzing the importance students attribute to the pyramid (Table 4), we note that, consistent with the first hypothesis Bosniaks were 17% more likely to assign importance to the discovery than their Croat counterparts (statistically significant, $p < 0.001$). Contrary to our second hypothesis that the strength of Bosniak identity should be positively correlated with the importance attributed to the pyramid, we find that students who attended mosque more were less likely to think that the pyramid discovery was important (statistically significant, $p < 0.05$). The strength of Croat identity, as proxied by church attendance, is as expected, negatively correlated with belief in the importance of the pyramid, but the relationship is not statistically significant. After the introduction of controls, the effect of being Bosniak is a 9% increased likelihood of believing that the pyramid is important, but this association is no longer statistically significant ($p = 0.32$). However, mosque attendance was still weakly associated with assigning less importance to the discovery (statistically significant, $p = 0.105$). Lastly, we find no support for our third hypothesis that institutions of integration will strengthen the importance of the discovery. Given that both belief in the pyramid and the sense of how it affects ones identity were positively correlated with mosque worship our proxy for Bosniak identity strength we wanted to probe why we find the opposite effect in the case of the importance that Bosniak students assign to the pyramid.

Table 4: Determinants of Pyramid's Importance

	I Marginal effect (S.E.)	II Marginal effect (S.E.)	III Marginal effect (S.E.)	IV Marginal effect (S.E.)	V Marginal effect (S.E.)
Bosniak	0.172*** (0.047)	0.243** (0.112)	0.094 (0.093)	0.238** (0.112)	0.090 (0.091)
Mosque worship		-0.056** (0.028)	-0.048* (0.028)	-0.052* (0.027)	-0.044* (0.027)
Church worship		-0.014 (0.031)	-0.048 (0.030)	-0.013 (0.031)	-0.047 (0.030)
Income			-0.001 (0.002)		-0.002 (0.002)
Female			0.049 (0.038)		0.053 (0.039)
Math performance			0.369** (0.019)		0.038** (0.019)
Institutions of integration				0.025 (0.036)	0.026 (0.033)
N	202	198	188	198	188

Note: ***significant at 1%, **significant at 5%, *significant at 10%. All models are probit analysis, with robust standard errors. Marginal effects reported with s.e. in parentheses (X variables set at a mean or a median in the case of dichotomous variables).

4.5. Ordinal Probit Analysis

To further probe the dynamics of how different manifestations of identity affect the three different dispositions to the pyramid (importance, belief and effect on identity), we estimate an ordinal probit model. The advantage of this model is that it helps us construct a single dimension of attitudes towards the pyramid. We construct this dimension both deductively and inductively. Deductively, once people know about the pyramid, in order to form any beliefs they have to assign some importance to it. For those who assign importance to the pyramid, the next step is to determine its validity. Finally, those subjects who deem the pyramid both important and genuine form attitudes on whether or not this discovery affects their identity. We can confirm the assumptions of this deductive logic by examining the distribution of responses to the three questions (Table 5).

Table 5: Inter-relationship of the respondents' beliefs and attitudes towards the pyramid

	Has importance				Does not have importance			
	Believes that it is true		Believes that it is untrue		Believes that it is true		Believes that it is untrue	
	Bosniak	Croat	Bosniak	Croat	Bosniak	Croat	Bosniak	Croat
Affects identity	22	7	3	0	0	0	0	0
Does not affect identity	63	18	8	40	2	0	2	15

True skeptic respondents who assigned no importance at all to the pyramid, did not believe the discovery was true and did not believe it affected their identity were either Croats or Bosniaks who did not attend mosque. This confirms our hypothesis that ethnicity, both in terms of group membership and strength of ethnic identification, is the best predictor of overall skepticism. Being a member of the group that does not identify with the state, or being a member of the majority group but not identifying strongly with it, serves as a good predictor of skepticism about the pyramid.

Perhaps the most interesting category of students are those who assigned importance to the discovery of the pyramid yet did not believe it to be true and did not have their identity affected by it. Croats were 16% more likely than Bosniaks to fall into this category of seeing importance in what they perceived to be an untrue story, irrelevant to their identity ($p=0.11$). Interestingly, for Bosniaks, mosque attendance translated into a 7% decrease in the likelihood of falling into the same category (statistically significant, $p=0.034$). Church attendance had the opposite effect but is not statistically significant. These results explain why our analysis of the pyramid's importance above (that ignored beliefs about its authenticity or effects on identity) showed that Bosniaks who attend mosque more frequently were somewhat less likely to believe the pyramid is important. Our results indicate that individuals can assign importance to what seems to be a national myth for reasons other than politics of identity. Of 81 students who offered a reason why they believe the pyramid is important, 60 claimed that the pyramid is important because of the economic benefits,

Table 6: Ordinal probit analysis of respondents' beliefs and attitudes towards the pyramid.

	Not important Don't believe No effect on identity Marginal effect (S.E.)	Important Don't believe No effect on identity Marginal effect (S.E.)	Important Believe No effect on identity Marginal effect (S.E.)	Important Believe Effect on identity Marginal effect (S.E.)
Bosniak	-0.071 (0.053)	-0.164 (0.113)	0.125 (0.095)	0.110 (0.072)
Mosque worship	-0.027** (0.013)	-0.067** (0.034)	0.0496** (0.026)	0.044** (0.023)
Church worship	0.017 (0.022)	0.042 (0.055)	-0.031 (0.04)	-0.027 (0.037)
Income	-0.001 (0.002)	-0.003 (0.004)	0.002 (0.003)	0.002 (0.003)
Female	0.002 (0.020)	0.004 (0.052)	-0.003 (0.038)	-0.003 (0.03)
Math performance	-0.025** (0.011)	-0.064*** (0.022)	0.047** (0.019)	0.042*** (0.016)
Institutions of integration	-0.009 (0.019)	-0.023 (0.048)	0.017 (0.035)	0.015 (0.032)
N	166	166	166	166

Note: ***significant at 1%, **significant at 5%, *significant at 10%. All models are ordinal probit analysis. Marginal effects reported with s.e. in parentheses (X variables set at a mean or a median in the case of dichotomous variables).

mainly tourism, that it would bring to the country. Meanwhile, 28 of the 33 Croats who specified a reason for the pyramids importance said it was because of economic reasons. Finally, and in contrast to this group, for the total believerspeople who believe the pyramid is important, genuine and affects their identitymosque attendance was the driving factor (statistically significant, $p=0.027$).

Institutions of integration had no statistically significant effect in any of the aforementioned categories of attitudes towards the pyramid. However, the sign of the estimated effect suggests that institutions of integration promote gradual change of belief from being a complete skeptic to believing the pyramid is important, genuine and identity-affecting. Students in segregated environments were more likely to be skeptical, while students in the integrated environment were marginally more likely to be open to the narrative. As discussed above, this effect varies by ethnicity, with Bosniaks being affected more than Croats.

5. Conclusion

Post-conflict multi-ethnic states often use national identity myths to solidify their peace and nation-building efforts. The consequences of these myths are highly debatable—they might be conducive to inter-ethnic unity and peace, or they might be the sinister precursor to another bloody conflict.³⁰ Either way, it is important to understand the conditions under which these myths are accepted by individuals, and the conditions under which they die out under the weight of mass skepticism. The constructivist literature on national identity formation cannot explain and in many cases does not acknowledge this variation, a gap this paper begins to close.

Here we studied a uniquely visible national identity myth in the making: the purported discovery of a pyramid in Visoko, Bosnia-Herzegovina. Though objectively false, this myth has galvanized nationalist sentiment across the state. However, our survey of high-schoolers in Mostar revealed that the myth has not been universally accepted. Rather, both ethnic groups—Bosniaks and Croats—exhibited significant variation in their attitudes about the pyramids' alleged discovery.

That variation, it turns out, is best explained by ethnic group membership and the strength of individual identification. Self-identified members of the ethnic group with the strongest ties to the emerging state (Bosniaks) were robustly more likely to believe in the pyramids' veracity. Meanwhile, a belief that the pyramid affects one's identity appears to be best explained by the intensity of one's ethnic identity, proxied by the individual's mosque attendance. We found counterintuitive results with respect to the relationship between the intensity of ethnic identity and belief in the pyramids' importance. Students who attended mosque more frequently—whose Bosniak ethnic identities were more intense—turned out to be less prone to consider the pyramid important. These results appear to be attributable to a different causal mechanism: Some Croats and Bosniaks, though less connected to the state's ethno-nationalist narrative and skeptical about the pyramids' veracity, accept it as

³⁰On the latter perspective, see Hobsbawm, "Introduction: Inventing Traditions, p. 12.

important because of its instrumental benefit to the economy (specifically, in the form of tourism).

In addition, the natural experiment in which the study was conducted allowed us to examine the impact of exogenously introduced institutions of integration on pyramid attitudes. These institutions appear to have a much weaker effect, if any at all, compared to the strength of ethnic identification. This finding is interesting because it runs counter to recent institutional literature that indicates the powerful effect of institutions on cooperative behavior and public goods contributions. It shows that belief formation and the construction of identity may require a higher threshold of time and engagement in order for institutions to have an effect.

These results suggest a number of general implications for the construction of national identities in multi-ethnic post-conflict states. First, recent history matters. National identity myths are much more likely to take hold among individuals whose ascriptive identification with the state predisposes them to acceptance of the myth. The stronger the degree of such identification, the more likely myth acceptance appears to become. Secondly, institutions of integration seem to matter little in the short term. This does not mean that we should give up on institutions of integration. The integrated school in Mostar was, after all, just two years old at the time of this study; changes in beliefs may simply take longer to take effect. Rather, it suggests that we need to pay more attention to the mechanisms through which institutions might change attitudes about national identity. The process of attitudinal change appears to vary both within and between groups with different degrees of identification with the state, which is an important insight for present and future builders of such institutions.

That being said, there is still much we do not know about the determinants of success and failure of post-conflict myth-making and institution-building. Projects like the one presented here individual-level research on the effectiveness of attempts at national myth constructions should be conducted in other state and cultural contexts, in order to assess the generality of the findings discussed above. In addition, longitudinal studies might get at the question of how identity attitudes evolve over a longer timescale than was possible to

consider in this study. Research projects such as these would likely provide stronger and more general insights into how post-conflict institution-building processes can be optimized to produce the most peace-prone outcomes.