# Identity in Partition
# Evidence from a Panel Survey in Sudan*

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**Abstract**

How are social identities affected by significant political change, and to what extent do migrants adopt linguistic, religious, regional, or tribal identity markers prevalent in their host communities? We investigate these questions in the context of Sudan's partition, which led to the creation of South Sudan in July 2011. Partition entailed both the relocation of a large number of Southerners to South Sudan and a sharp deterioration in the treatment of minorities, including Southerners, remaining in northern Sudan. The paper presents data from a panel survey of 1,380 respondents conducted in pre- and post-partition Sudan and South Sudan in 2010 and 2011, complemented by in-depth qualitative interviews conducted in 2012. This is to our knowledge the only systematic data collected on Sudanese attitudes and self-identification at the time of partition and the first time such a panel has been constructed during a country's partition. We present statistical evidence to show that subjects' self-identifications are surprisingly malleable and responsive to context. This affects both the activation and ranking of preexisting identity components (e.g. whether subjects prioritize their tribal or national identities) and the adoption of entirely new characteristics (e.g. Christians self-identifying as Muslims). We show that some identity markers (such as language) are more malleable than others (such as religion), but overall subjects are willing to adapt and redefine themselves in the pursuit of security and well-being. This is true for both Southerners and other peripheral minorities trying to pass as members of dominant groups in Sudan as well as relocated Southerners trying to settle in South Sudan. Contrary to fears expressed by members of dominant groups, these vulnerable individuals do not refuse to integrate, but actively seek to adopt dominant identity patterns.

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## 1 Introduction

How do identities change in response to high-stakes political transformations? How do individuals respond when their linguistic, religious, national, regional, or tribal identity marker suddenly disqualifies them for a job, or university admission, or make them vulnerable to physical attack? In this paper, we argue that when the stakes are high and there is intense pressure to adapt, individuals will attempt to redefine their identities swiftly. This can mean that particular preexisting identity components are activated or ranked "first and foremost" (Kuo and Margalit, 2012), but it can also mean the adoption of entirely new identity markers that conflict with the heritage individuals previously claimed. Not all markers of identity are equally malleable and responsive to context. Some, such as language, appear to be more readily subject to change than others, such as religion. Adaptation is constrained by circumstances, the content of different traits, and individuals' physical limitations, but we provide evidence that vulnerable groups are willing to at least profess adaptation in the face of hardship.

We explore this issue in the context of Sudanese partition, which placed Southerners and other peripheral minorities at risk of repression and discrimination in northern Sudan. Partition also lead to large numbers of people migrating from northern Sudan into newly independent South Sudan and adapting to changed circumstances there. South Sudanese independence was effectuated in July 2011, six months after South Sudanese had voted for separation in a referendum that had been an integral part of the Comprehensive Peace Agreement negotiated between the Khartoum government and the southern Sudanese Sudan People's Liberation Movement (SPLM) in 2005. An overwhelming majority of South Sudanese voted for independence, although opinions were more divided among Southerners living in Khartoum and elsewhere in northern Sudan.[1]

Our data comes from an original pre- and post-partition panel survey that we conducted in Sudan to ask how Southerners and other minority groups in northern Sudan navigate the challenges of partition.[2] We randomly sampled and interviewed approximately 1,400 respondents in greater Khartoum at the end of 2010, prior to the referendum on South Sudan's independence, and then reinterviewed these subjects at their current location in late 2011. Additional in-depth interviews with a subsample of respondents were conducted in 2012. Not many panel surveys have been implemented in sub-Saharan African countries, and to our knowledge no others were conducted at the time of Sudan's partition. While cross-sectional data can shed some light on the ways in which identities differ across institutional

[1] Josh Kron and Jeffrey Gettleman, "South Sudanese Vote Overwhelmingly for Secession," *The New York Times* (January 21, 2011).

[2] We complement the extant literature on partition as a solution to ethnic conflict (Kumar, 1997; Kaufmann, 1998; Sambanis, 2000; Sambanis and Schulhofer-Wohl, 2009) by analyzing decisions made during the partition process at the individual and household level.

or historical contexts, a panel survey is a more powerful tool to document identity change at the level of a particular individual.[3]

The paper proceeds as follows. Section 2 discusses some key claims of and our contribution to the existing literature on ethnic identities and identity change. Section 3 briefly discusses Sudanese history relevant to this study, and section 4 provides information about sampling protocols and other details concerning the panel survey data analyzed in this paper. Section 5 describes the extent to which Southerners and other vulnerable minorities have and have not relocated away from Khartoum in the aftermath of partition. Section 6 then documents ways in which Southerners and other minorities remaining in northern Sudan have adapted to the changed circumstances in which they find themselves today, either in northern Sudan or as migrants in the South. We provide evidence for adaptive behaviors such as changes in respondents' reported home language, and discuss ways in which adaptation is constrained.

## 2 Existing literature on identity change

Current scholarship on ethnic cooperation and conflict frequently presumes ethnic identifiability.[4] Claims about how shared membership in an ethnic group facilitates collective action rest on the major, albeit sometimes implicit assumption, that we can identify the ethnic groups to which people belong. At the very least, the body of existing work on ethnic politics assumes that individuals can correctly identify members of their own group.[5]

Identifiability is not a given, however. In many contexts, including high-stakes conflict settings, uncertainty abounds. During the Rwandan genocide, for example, the targeting of Tutsis was often facilitated not by any obvious visual distinction between members of the different groups, but by the fact that identity papers carried an ethnic classification first introduced by the Belgian colonial administration.[6] Similarly, members of conflicting "Arab" and "African" groups in Darfur are not always readily distinguishable, considering that some Baggara Arab groups, such as the Fur and the Fellata, are in fact of African origin. Experiments confirm that misclassification is common, even when individuals are confident in their ability to code others. In a study with undergraduate students at the University of Southern California (USC) and the University of California at Los Angeles

[3] We previously used this the first wave of this panel data set to analyze how political opinions change when individuals are exposed to violence (Beber, Roessler, and Scacco, 2014) and used both the first and second waves to explore determinants of Southern migration from Khartoum to South Sudan (Beber, Roessler, and Scacco, 2016).

[4] For example, see Habyarimana et al. (2007*b*).

[5] See for example Fearon and Laitin (1994).

[6] This problem was well-recognized at the time, so much so that the 1993 Arusha Accords included a provision to remove "from all official documents to be issued any reference to ethnic origin."

(UCLA), subjects miscoded out-group members' ethnic background one-third of the time and mistakenly identified on average about one in six in-group members as out-group members (Habyarimana et al., 2005). In subsequent lab experiments in Uganda, 300 subjects misidentified in-group members on average one-third of the time and out-group members two-thirds of the time (Habyarimana et al., 2007*a*). Results from South Africa similarly suggest that the chance of accurate ethnic categorization can in fact be "fairly low" (Harris and Findley, 2014).

This context-dependent uncertainty about identity characteristics of others creates space for individuals to redefine themselves. The evidence in the extant literature suggests that individuals are able to adopt or jettison markers of ethnic identity, although typically not as easily as they can appropriate attributes associated with other identities, such as social class, ideology, or occupation (Chandra, 2006). While most scholars agree that ethnic identities are constructed, they are also overwhelmingly described as ascriptive, and individuals face constraints in changing categories that are built from descent-based attributes.[7]

This constructivist framework raises questions about the conditions under which individuals are able to reconfigure their ethnic identities. One plausible argument contends that individuals are constrained by person-specific menus of underlying, relatively "sticky" attributes. A given individual can combine and recombine a set of descent-based attributes into a defining bundle of salient identity characteristics (Chandra, 2006; Posner, 2005). While individuals can activate different elements of their identity "choice sets," the set itself is fixed in the short term. The decision to shift one's active ethnic identification is driven by political and economic incentives. In Posner's well-known example, the tribal identities of Chewas and Tumbukas are activated in Malawi, where each of the two groups is large enough to compete separately for political gain, while a regional identity that unites Chewas and Tumbukas dominates in neighboring Zambia, where neither of the tribes can reasonably expect to play a role in national politics without the other (Posner, 2004).[8]

We provide evidence in this paper for the argument that individuals activate different elements of their identity choice sets in response to material incentives. For example, our data suggests that northern Sudanese minorities elevate their national identities above their regional identities in the aftermath of partition, or at least claim to do so in the setting of a survey interview.[9] But we also show that identity choice sets may not be as static as is sometimes contended. We present evidence that some subjects, facing persecution

[7]See Bates (1983) and Laitin (1986) for two classic discussions of the nature of ethnic identities and the process of identity change.

[8]See also Posner's illustration of this argument using a hypothetical community in Los Angeles, where individuals choose a group based on its propensity to join a minimum winning coalition (Posner, 2005: 137).

[9]See also Eifert, Miguel, and Posner (2001) on the instrumental use of ethnic identification, and Algan, Mayer, and Thoenig (2013) on changes in the distribution of baby names in response to economic incentives in France.

and powerful incentives to “pass” as members of another group, adopt identity attributes that were not previously part of their descent-based choice set. For example, this includes subjects who previously identified as members of Nilotic tribes self-identifying as “Arabs,, after partition, and Christians adopting, or proclaiming to have adopted, a Muslim identity.

Our evidence suggests that identity choice sets are not only the result of slow-moving structural factors like a country’s colonial history, but also of a concrete challenge faced by subjects: What attributes can a subject plausibly adopt? To what extent can a subject maximize the probability of being recognized as an in-group member by any particular identity group that the subject may want to join? Depending on a subject’s own characteristics and the nature of the relevant in-group attributes, this can mean that a subject’s identity choice set can expand greatly or not at all as he or she confronts different circumstances. An individual with facial scars indicating tribal membership, for example, will face constraints on his or her ability to “pass” as a member of another tribe, or even to emphasize other identity attributes aside from tribe. Similarly, an identity associated with narrow phenotypic traits will be relatively difficult to appropriate. Conversely, identity groups in which membership can be successfully indicated through dress, language, or particular behaviors are relatively more accessible.

This paper joins other academic work that has documented identity change in progress, such as ethnic Russians’ attempts at assimilation in the Baltic countries after the collapse of the Soviet Union (Laitin, 1998) and the large-scale abandonment of German as a language of communication among ethnic Germans in the United States after the outbreak of World War I (Luebke, 1974; Kirschbaum, 2015). We expand on this work by showing that the powerful incentives for change created by Sudan’s partition made even relatively “sticky” attributes such as religion and one’s place of origin subject to reconfiguration.

## 3 Political Context: Sudan’s Partition

Sudan might at first glance appear to be a hard case to document identity change (and in particular the adoption of dominant northern Arab identity attributes by members of oppressed and peripheral groups) in the sense that the country has experienced decades of horrific violence pitting the Khartoum government against many minority groups, including Southerners, the Nuba in the South Kordofan region, the Fur, Masalit, and Zaghawa in Darfur, indigenous Funj tribes such as the Ingessana in Blue Nile, the Ngok Dinka in Abyei, and the Beja and Rashaida in eastern Sudan. The map in Figure A.11 in the appendix provides an overview of the primary location of several key ethnic minority groups. We would ordinarily expect violence to harden ethnic boundaries (Beber, Roessler, and Scacco, 2014; Rohner, Thoenig, and Zilibotti, 2013; Hayes and McAllister, 2001) and in fact some

have argued that the construction of an exclusionary northern "Arab" identity has been a major impediment to North-South compromise (Deng, 1995; de Waal, 2005). Indeed, the conflict was ultimately settled through the establishment of a literal boundary between the North and the South. The Comprehensive Peace Agreement signed in 2005, after some 2 million people had been killed in fighting that began in 1983, provided for a referendum on independence held in January 2011, and South Sudan proclaimed independence in July of 2011.

Darfur, too, is considered a classic tale of identities hardened through colonial rule and years of armed conflict (de Waal, 2005). De Waal describes how most tribal names were created in the 18th to the 20th centuries, as British colonial officers attempted to "tidy up the confusion of tribal allegiances" by consolidating smaller groups into larger named agglomerations and formalizing province boundaries. The cleavages between "Arab" and "African" ethnicities further deepened as the Khartoum government pursued a supremacist ideology of Arabization and violent clashes began in the 1980s. The fact that parts of the international community have framed the continuing conflict in Darfur as a war of "Arabs" against "Africans" has also contributed to an appearance of unbridgeable ethnic divisions.[10]

However, while a history of violence can harden divisions between ethnic groups and make political compromise more difficult to attain, it can also create strong incentives for individuals who live, work, or otherwise interact with people on the "wrong" side of an ethnic divide to go to great lengths to redefine themselves, as we show in this paper.[11] As we discuss in the following section, our survey subjects were sampled in greater Khartoum, where we would expect such incentives to be particularly pronounced.

## 4 Survey and sampling design

The data for this paper comes from a panel survey of a representative sample of 1380 individuals from five administrative units (AUs) in greater Khartoum. We conducted an initial round of interviews in November and December 2010 and a follow-up in October through December of 2011. Greater Khartoum consists of the 23 out of 36 AUs in Khartoum State that contain any urban residential population according to Sudan's 2008 census. It encompasses the three historic cities of Bahri, Omdurman, and Khartoum at the confluence of the Nile. We oversampled members of vulnerable ethnic minority groups, including

[10]The Fur provide a historic example of identity change in response to economic incentives. Fur farmers adopted a nomadic "Arab" lifestyle and became Baggara as cattle-herding was relatively more profitable in the 1960s and 1970s.

[11]Alternatively, these individuals could relocate, a possibility we discuss further below and more extensively in Beber, Roessler, and Scacco (2016).

Southerners, Darfurians, and Nuba, as shown in Table 1.[12]

Khartoum's ethnic diversity made it an attractive survey site to sample respondents from a broad cross-section of Sudanese society.[13] We also selected Khartoum as a project site because the vast majority of Sudanese displaced by the wars in the South and Darfur relocated to Khartoum and its environs. In fact, observers commonly believed that some 1.5 million out of an estimated 4.8 million Southerners eligible to vote in the 2011 referendum on South Sudanese independence lived in greater Khartoum.[14] This was in all likelihood a significant overestimation. We estimate that no more than a quarter of a million Southerners resided in greater Khartoum at the end of 2010, as shown in Table 1, which matches a report by the Carter Center that about 116,000 Southerners had registered in North Sudan to vote in the referendum.[15] Regardless, Khartoum probably hosts the largest concentration of displaced people in Sudan.[16]

Initial sampling for round I of our panel survey proceeded as follows. We first randomly sampled a set of five administrative units, which we stratified by dominant region of origin. For each AU, we obtained an estimate of which group dominates from 24 individual assessments made by locally knowledgeable research assistants. In a given AU, we considered a group dominant if (a) it has a plurality in a given AU, and (b) constitutes at least one-third of the population in that AU. If no group makes up at least one-third of the population, the AU was coded as mixed. AUs were grouped in five strata (North-Central, Darfur, Nuba, South, and mixed), and we selected one AU from each stratum, with selection prob-

[12] Shares do not add to 1 because of respondents and residents from elsewhere, such as migrant workers from Nigeria. Respondents self-identified their region of origin. Darfur is located in Sudan's far west, and Kordofan extends over the country's central plains between Darfur and Khartoum. The Nuba Mountains are located in the southeastern corner of South Kordofan state, along the border with South Sudan. In contrast to Baggara tribes such as the Jawamaa and Misseriyya that populate much of Kordofan, both Darfurian and Nuba groups have a history of contentious relations with Sudan's central government. Violent conflict has marred Darfur since 2003 and Nuba groups supported and fought alongside Southern rebels during the civil war with the South.

[13] See for example Gwen Thompkins, "Khartoum, Sudan's Cosmopolitan Epicenter" (http://www.npr.org/templates/story/story.php?storyId=92621314).

[14] Sudan Tribune, "Rumbek Students Demand Immediate Return of Southerners to South Sudan" (October 16, 2010); Rebecca Hamilton, "This Doesn't Look Like Unity," *Slate* (October 12, 2010); Neil MacFarquhar, "Obama Presses for Peace in Sudan's Likely Partition," *The New York Times* (September 25, 2010); Agence France Presse, "South Sudanese Return Home Before Census" (March 17, 2008). Others located 1.5 million Southerners in the North more generally: Associated Press, "UN: 2.8m at Risk If Violence Breaks Out in Sudan"(December 22, 2010); Jeffrey Fleishman, "Southern Sudanese Head Home Despite Risk of War," *Los Angeles Times* (December 29, 2010).

[15] Jimmy Carter, "Trip Report by Former U.S. President Jimmy Carter to Sudan, Jan. 5-16," *All Africa* (January 20, 2011). We can only make inferences about areas under PAU administration, which excludes certain refugee camps under the supervision of the Humanitarian Affairs Commission (HAC). On the other hand, two of our AUs, Hai Yousif and Al Nasr, are believed to have among the highest concentrations of Southerners anywhere in Khartoum.

[16] A complementary representative sample of residents of Kosti in the border state of White Nile was lost when state security failed to accept permits issued by the governor and other local authorities on the first scheduled day of survey administration.

| | Sample size | Share of sample | Estimated population share | Estimated population (in million) |
|---|---|---|---|---|
| North-Central | 491 | 36% | 61% | 2.55 |
| Darfur | 191 | 14% | 9% | .38 |
| Nuba Mountains | 258 | 19% | 7% | .30 |
| Kordofan | 141 | 10% | 10% | .40 |
| South | 205 | 15% | 6% | .23 |
| East | 54 | 4% | 4% | .17 |

Table 1: Sample and population shares by region of origin

abilities proportional to AU population shares. Figure 1 shows the location of these five administrative units by overlaying the relevant census maps over a satellite image.[17]

Second, we sampled 62 popular administrative units (PAUs), which we stratified by wealth and dominant region of origin within each AU. We oversampled PAUs where Darfurians, Nuba, or Southerners dominate, and otherwise allocated sampling units in proportion to stratum size. Figure 2 highlights sampled PAUs in Haj Yousif, an administrative unit in which Southerners dominate.

Third, we randomly sampled households within PAUs by drawing target coordinates that were then found by GPS-equipped enumerators in the field. Figure 3 shows an example of coordinates drawn in Al Shigla Central in Haj Yousif.[18]

Fourth, enumerators asked the head of each sampled household to construct a roster of adult household members, and individual respondents were sampled from this roster. Enumerators stressed the project's lack of any political affiliation and the random selection of respondents, and provided details about measures taken to protect respondents from any kind of retaliation (described below). Most respondents (87%) agreed to participate.

The survey consisted of about 150 questions on political opinion and participation, social networks, interaction with government officials, exposure to media, war experiences, and individual and household background characteristics. We collected detailed contact information in order to be able to locate respondents. About 84% of those who agreed to participate in the survey shared their contact information. They were contacted for a second interview in the fall of 2011.

Enumerators frequently reported that respondents were initially apprehensive. Surveys by most international organizations, such as recent intention-to-migrate surveys by the

[17]Census maps did not include coordinates and had to be approximately georeferenced using satellite imagery.

[18]Sampling points beginning with $S$ had to be visited by enumerators. Replacement points begin with $R$ were visited if a sampled household declined participation. Detailed sampling procedures are available upon request.

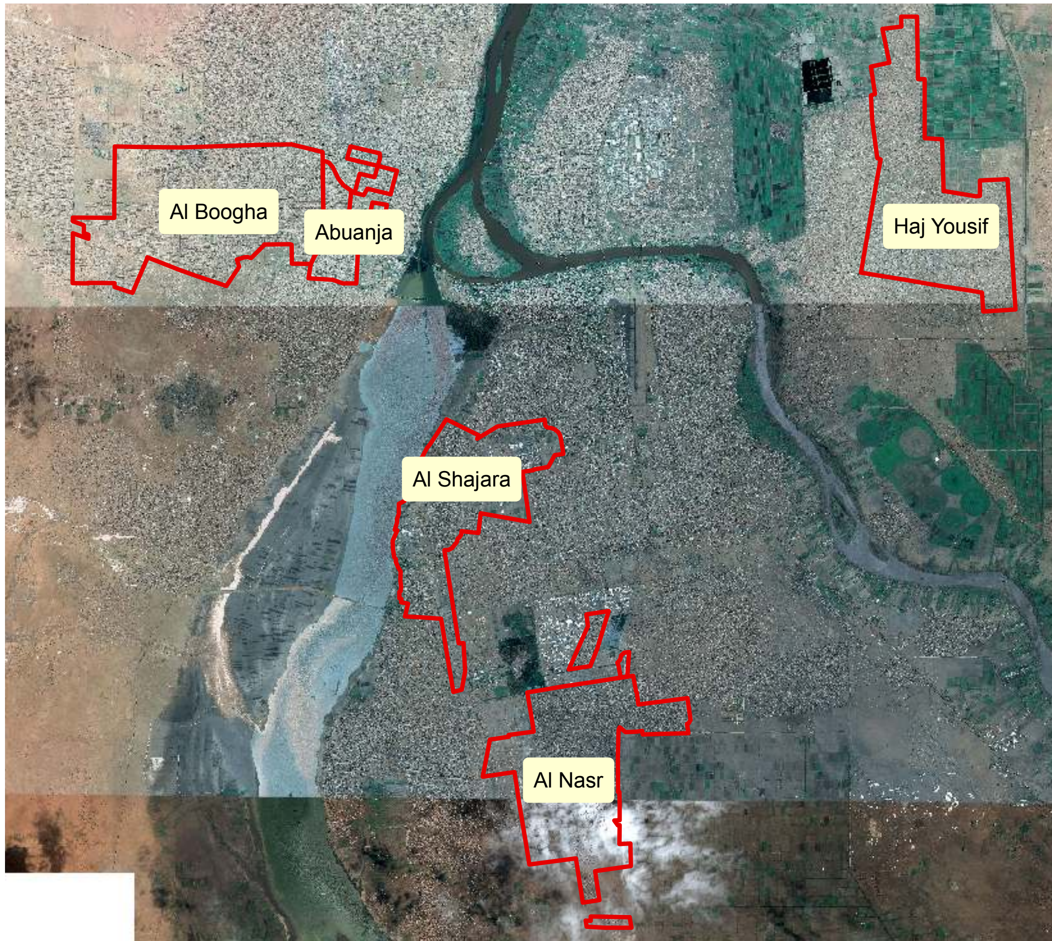


Figure 1: Location of administrative units

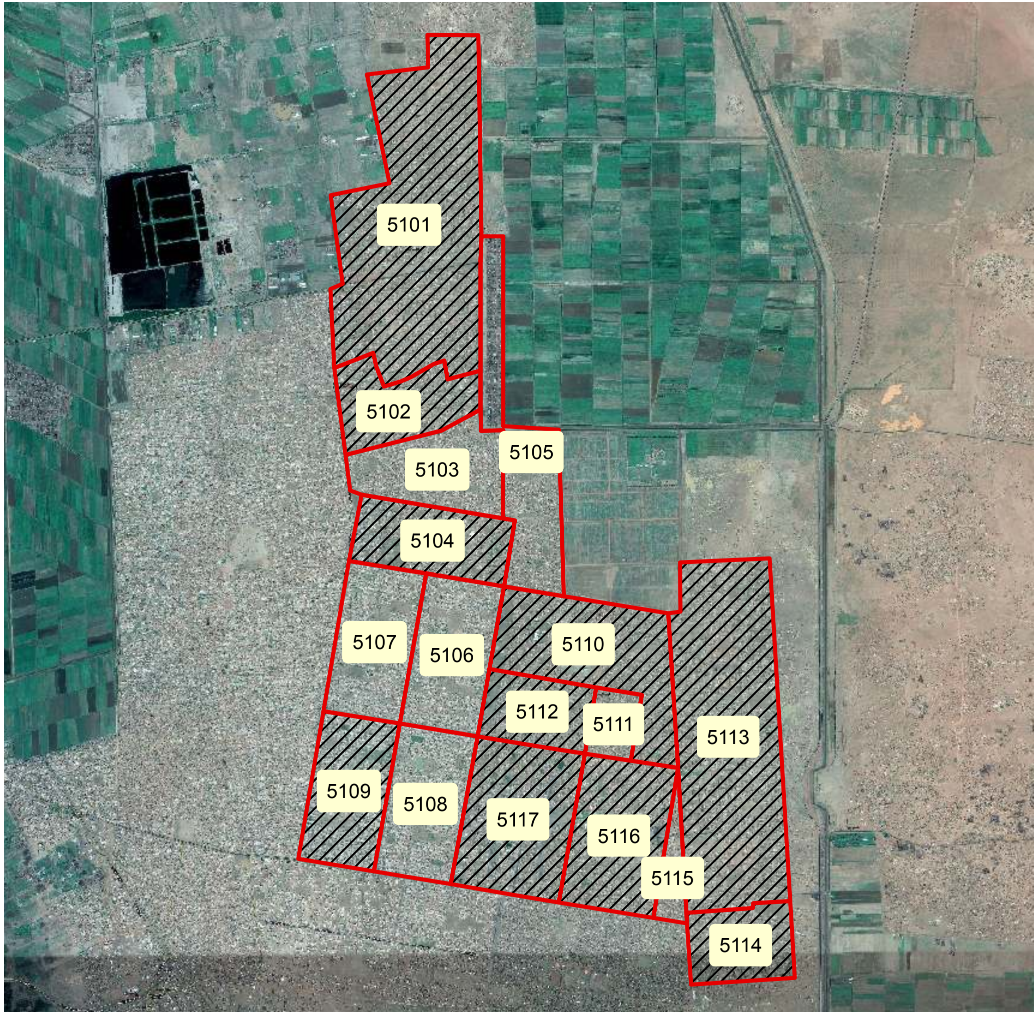


Figure 2: Composition of administrative unit

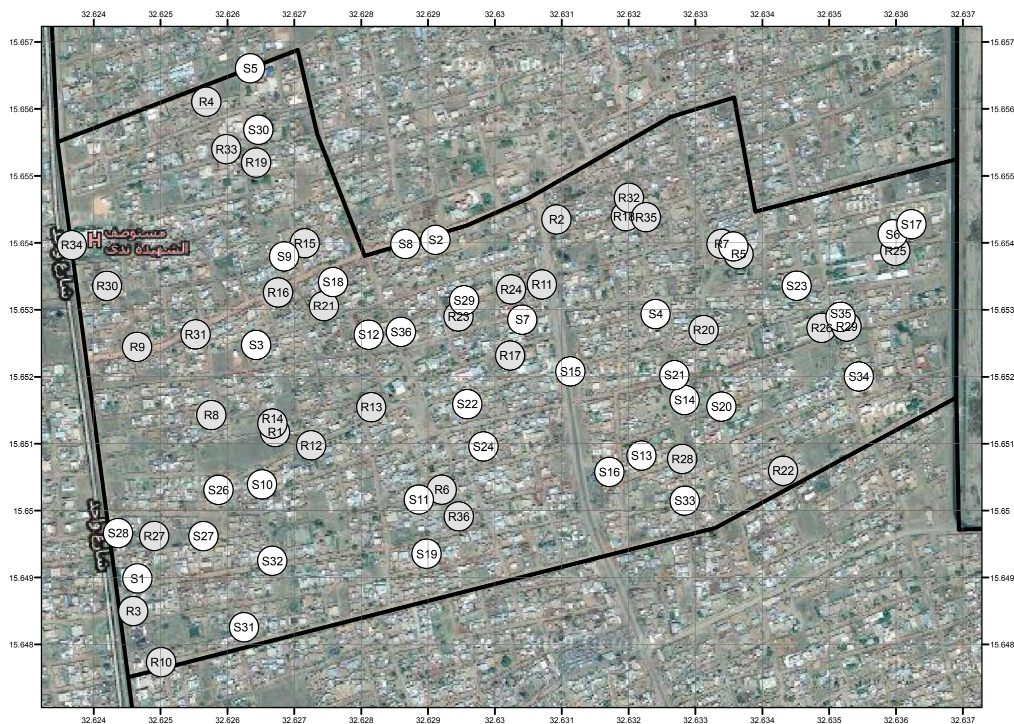


Figure 3: Sampling within a popular administrative unit

UNHCR and the International Organization for Migration (IOM), require supervision by Sudan's Humanitarian Aid Commission (HAC), which generally takes the form of minders who accompany enumerators. This was an important reason why we completed all survey work in-house, with our own staff, who obtained any necessary permissions from local, non-HAC authorities.[19]

Our survey is particularly useful for the study of identity change because subjects were interviewed twice, once before the referendum (in late 2010) on the country's partition and once after separation had been effected. Follow-up interviews were conducted in late 2011, and we were able to complete a second survey with approximately 85% of those respondents who shared contact information with us.

One concern during survey implementation was that our interviewers might have mistakenly interviewed subjects pretending to be a member of our panel, although there was no obvious incentive for anyone to do so. Our local Sudanese partners stressed that respondents

[19]Our staff obtained permits from PAU, AU, and locality authorities. Localities are groupings of AUs within states. We obtained IRB approval or an institutional equivalent from New York University, the University of Oxford, and the University of Khartoum. The University of Khartoum provided guidance under the aegis of the relevant dean and an Advisory Committee of faculty members established for this project.

Figure 4: Example of search process, round II

would generally find survey payments inappropriate or misconstrue payment as a form of coercion to elicit particular responses, especially in the context of a study associated with universities in the United States and the United Kingdom. For this reason, subjects did not receive payments at any time during our study.

A related concern was that we might interview members of the panel, but falsely associate them with the initial record of another subject. To address these concerns, each respondent search was completed using a broad range of identifying markers. First, we collected extensive contact information, including each subject's local address, GPS coordinates, information on any ancestral homes, and contact details for several non-household relations. The respondent contact sheet used for this purpose is shown in Figure A.12 in the appendix. This information was then used by enumerators to locate participants for follow-up interviews. Second, enumerators were provided with an additional information sheet for each subject containing certain identification-relevant responses provided by the subject during his or her initial interview. An example (for a person born in Central Equatoria, who has lived in North Kordofan, first moved to Khartoum 36 years ago, is aged 44, with a child, etc.) is shown in the appendix in Figure A.13. Using this information, enumerators ensured that they were in fact connecting the correct individual with the relevant existing record.[20]

Figure 4 shows the progression of a typical respondent search, as documented on enumer-

[20]It is possible that this verification process could lead us to underestimate the extent to which identity attributes changed, since enumerators checked located participants by asking about their pre-partition attributes.

| | Initial estimate of population share (2010) | Re-estimated population share (2011) | Re-estimated population (2011, in million) |
|---|---|---|---|
| North-Central | 61% | 64% | 2.55 |
| Darfur | 9% | 9% | .35 |
| Nuba Mountains | 7% | 7% | .27 |
| Kordofan | 10% | 9% | .37 |
| South | 6% | 3% | .10 |
| East | 4% | 4% | .15 |

Table 2: Re-estimated population shares by region of origin

ator search forms. In this case, the respondent had left for South Sudan and was eventually located and interviewed in the South Sudanese city of Wau. We spent considerable resources trying to locate first-round subjects for follow-up interviews. Since a sizable share of our respondents relocated around the time of Sudan's partition, either within Khartoum or to South Sudan and elsewhere, as discussed further below, we maintained enumeration teams in both Khartoum and Juba. Subjects were interviewed at their current locations, such as Wau, whenever possible. On average, completed surveys required 2.5 and lost subjects 3 enumerator assignment days (i.e. days on which a staff member was tasked with searching for and potentially interviewing the subject in question). The maximum number of enumerator assignment days used for any particular subject was eight.

## 5 Relocation at the time of partition

Before turning to the ways in which minorities remaining in northern Sudan adapt in the face of repression, we note that large numbers of them do in fact remain in the North. Subjects from peripheral regions or tribes (i.e. subjects that do not belong to the three main riverine Arab tribes of the Danagla, the Jaliyyin, and the Shaygiyya that have dominated national politics since Sudan's independence) did not abandon Khartoum after separation. While about half of the Southern population had left and, for the most part, migrated to South Sudan by the time we conducted our follow-up interviews, the outflow-adjusted population shares of other major groups remained stable.

Table 2 shows our initial 2010 estimates of the size of key population groups in Khartoum, re-estimated population shares from the fall of 2011, and estimates of the size of different groups in absolute terms.[21] The table suggests a slight uptick in the number of Darfuris and Kordofanis, and a small decline in the relative share of Nubas. Our data also

[21] Re-estimated figures are adjusted for out-migration flows, but not for any migration into Khartoum that may have occurred between the end of 2010 and the fall of 2011.

| Do you intend to leave Khartoum? | Yes, within the next year | Yes, but not within the next year | No |
|---|---|---|---|
| North-Central | 8% | 11% | 82% |
| Darfur | 1% | 13% | 86% |
| Nuba Mountains | 8% | 6% | 87% |
| Kordofan | 4% | 10% | 86% |
| South | 21% | 57% | 22% |

Table 3: Migration intentions among those remaining in Khartoum

suggests the departure of about half of the Southern population in Khartoum and the surrounding metropolitan area, overwhelmingly due to migration to newly independent South Sudan. Our analysis below focuses in particular on Southerners and Nubas, who were allied during much of the civil war that ravaged southern Sudan and who have both been prime targets of the Khartoum government's repressive actions.

Table 3 inspects further the extent to which respondents that remained in Khartoum plan on leaving the metropolitan area. Aside from Southerners, Nubas were most likely to say that they have migration plans, with a total of about 22% interested in leaving either within a year or further in the future. The Nuba Mountains were a flashpoint of violence in the months following partition, and the Sudanese government's ruthless campaign against SPLA elements among the Nuba explains some of the sentiment in favor of migration away from Khartoum. South Sudan does not appear to be an attractive alternative to Nubas, either: Only 3% of Nubas report that they intend to migrate to the South.

Even for most Nubas, however, Khartoum remains a place few want to leave behind. Only Southerners indicated in large numbers that they intended to leave Khartoum permanently and move to South Sudan: 25% within the next year, and another 50% at some other time in the future. Although these numbers are of course much greater than for any other subgroup, it would seem reasonable to expect these numbers to be even higher given the extraordinary restrictions the Sudanese government has imposed on Southerners in the North. All Southern government employees were fired, university enrollment has largely been suspended for Southerners, the government issued a new currency at the time of partition and instructed banks not to exchange Southerners' Sudanese pounds, Most importantly, Southerners' citizenship was revoked and they have been barred from obtaining national identity cards required for legal residence since April 2012.[22]

Our interview subjects provided vivid descriptions of hardship in a changed Khartoum: One man was told that doctors "would not treat us in a hospital if we were sick after sep-

[22] Note that our follow-up interviews were conducted prior to South Sudan descending into civil war between government troops led by President Salva Kiir and forces loyal to Vice President Riek Machar.

aration."[23] Another described the informal process by which those who "looked Southern" could lose their papers: "Even if you had nationality papers, the authorities would take them from you. They would even stop the bus or the car you were riding in and say, 'everyone show your papers.' Then they would take the papers from the Southerners and rip them up and tell you leave Khartoum and to go to your new country."[24]

Many of these draconian measures had not been announced at the time of the referendum, when Bashir's government was making the case for unity and attempting to woo Southern voters, but they had been put in place prior to the second round of our survey. Yet despite the government-sanctioned hostility directed against Southerners, about a quarter of the remaining Southerners (approximately 20,000 people) expressed no intention of leaving Khartoum at any point in the future. This raises the question how these Southerners and other peripheral groups remaining in greater Khartoum adapt to the challenges and risks that their continued residence there entails.

## 6 Adapting to changed circumstances

In this section, we make four points. First, we provide evidence of subjects reassessing how salient their tribal, regional, and national identities are to them or to their self-presentation vis-à-vis others around the time of partition. Second, we suggest that subjects emphasize different identity attributes in response to economic and political incentives. Third, we show that subjects do not only activate particular identity components from an inherited and fixed choice set, but are willing to redefine themselves in ways that sometimes directly contradict earlier self-conceptions. Subjects do face constraints, however, and not all identity attributes are equally malleable. Finally, emigration is an obvious alternative to adaptation in Sudan, in particular for Southerners, but even those subjects who chose to migrate to South Sudan faced assimilationist pressures, as we show at the end of this section. Throughout the analysis that follows, we focus on Nuba and Southern respondents, who were arguably the most vulnerable minorities in post-separation Khartoum.

On the first point, Figures 5 to 8 show the extent to which subjects' ranking of tribal and regional versus national identities changed from our pre-partition interview to the follow-up survey. We show percentages within each column, i.e. we show the distribution of post-partition responses for each pre-partition response option. Figures 5 and 7 do so for the Nuba, and Figures 6 and 8 for the subsample of Southerners remaining in Khartoum.[25]

[23] Interview 612. All quotes are from in-depth interviews conducted with survey respondents in addition to the panel survey.

[24] Interview 141.

[25] The questions underlying these particular graphs were self-administered, and responses may be noisier than for enumerator-administered survey items. The fact that these questions were self-administered should reduce any social desirability bias.

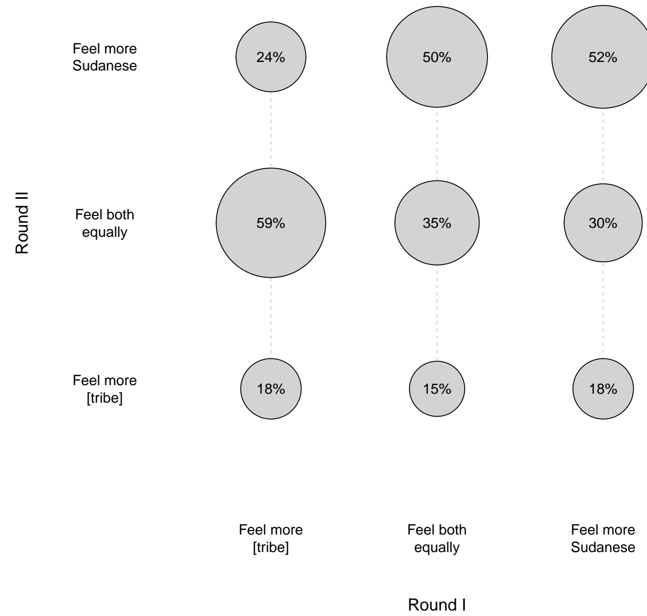


Figure 5: Tribal and national identification, Nuba

For both groups, we see a shift — subjects tend to weigh their national Sudanese identity more heavily than their region of origin or tribe after partition. In all cases, subjects who ranked their Sudanese identity first before partition were relatively less likely to change their response than subjects who ranked their regional or tribal identity first. Among those who changed their response, we see a clear trend toward greater proclaimed identification with Sudan as a nation (the top row in each of the figures). For example, among Nuba who said before partition that they identify equally with their tribe and the Sudanese nation, 35% gave the same response after partition, 15% gave priority to their tribe, and 50% said they felt Sudanese first.

These shifts do not reflect satisfaction with the referendum on Southern independence. In fact, the situation for Nuba and Southerners in post-partition greater Khartoum was (and continues to be) precarious. Any celebratory sentiment quickly faded as the Sudanese government began to implement policies designed to induce Southerners to leave the North and pursued a policy of violent repression against the Nuba in South Kordofan. Most of the government's draconian measures had not been announced prior to the referendum (i.e. when we conducted initial interviews), because Bashir's government was still making the case for unity and attempting woo Southern voters away from supporting partition in the referendum, but they had been put in place prior to the second round of our survey.

In our qualitative interviews in 2012, Southerners described the deteriorating security

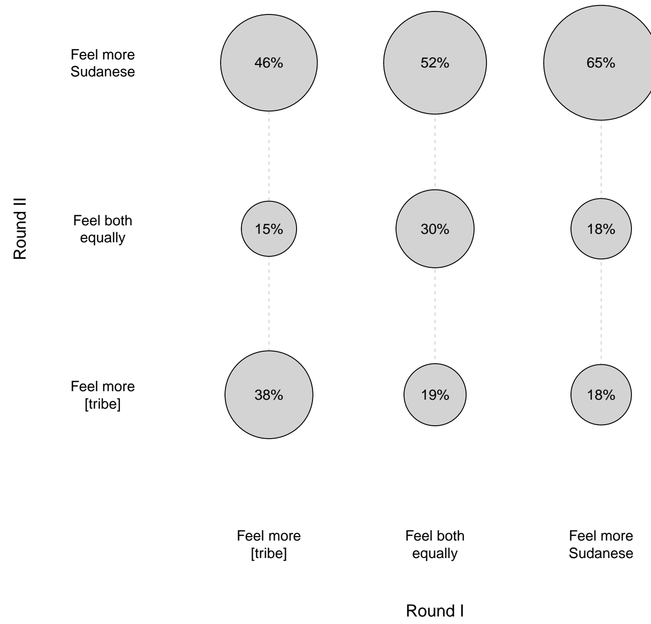


Figure 6: Tribal and national identification, remaining Southerners

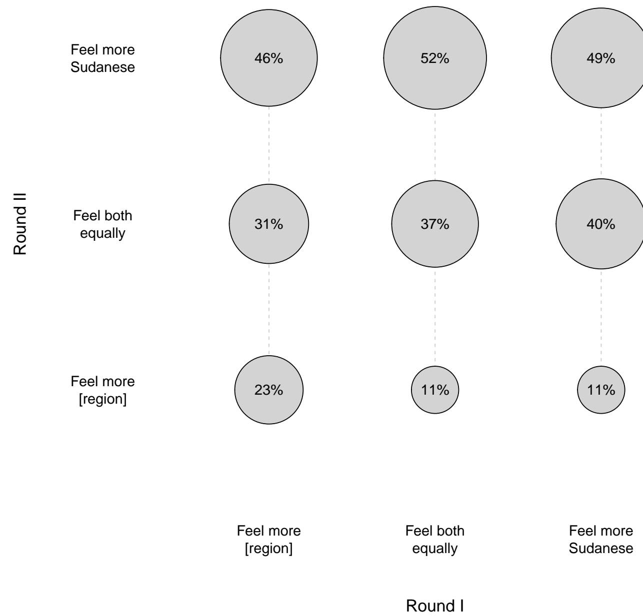


Figure 7: Regional and national identification, Nuba

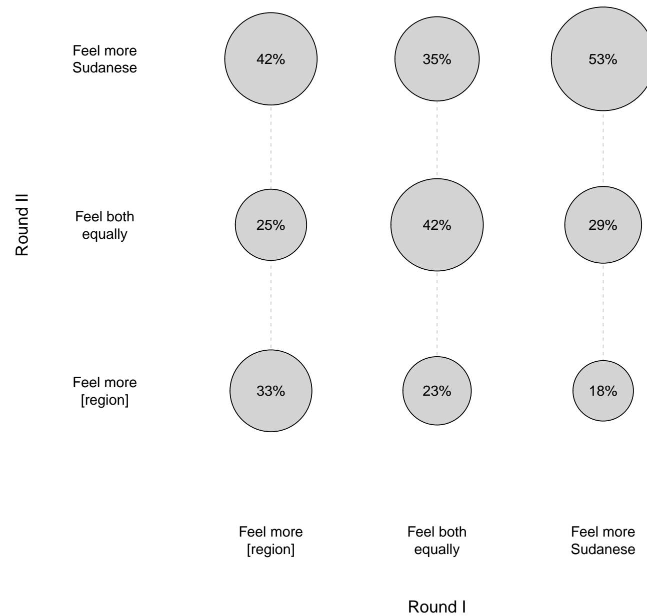


Figure 8: Regional and national identification, remaining Southerners

and economic environment within which they try to carve out a living in Khartoum. A 28-year-old man told us about harsher penalties for activities that tend to involve Southerners: "To get money, we like to make wine (Marisa) at home and sell it. The police can come and arrest these people. The punishment used to be only two weeks in jail. When the referendum came they raised the punishment to 6 months."[26] Another man, 44 years old, explained an extrajudicial beating he underwent at the hands of the police: "If [the police] catch you in the street they say 'you are drunk' even if you aren't. They arrest you and take you to prison and beat you."[27] A woman, 30 years old, was threatened by vigilantes on her way to work: "There were some Northerners who stopped the bus. They got on and said 'we have to kill these two Southerners.' It was me and one of my friends. They were holding big knives. I knew I was going to die. I knew that was the time. So I closed my eyes and prayed. When my eyes were closed, the police came. And when I was able to open my eyes again the people with the knives were gone. [Later] they burned our office."[28] A 22-year-old woman spoke of how difficult it has become to gain a formal education: "The situation has become so hard. When my auntie went to register the children in school, they

[26]Interview 3394
[27]Interview 1078
[28]Interview 2937

just asked her for her [proof of] residence. They told her you have your own country."[29]

Again and again, Southerners and other non-Arab Northerners spoke of increased intimidation and hardship. Why then are Nuba and Southerners more likely to claim they feel primarily Sudanese after partition? We suggest that they do so strategically in order to maximize their security, well-being, and economic opportunities. Their adaptation is instrumental, aimed for example at increasing their chances of being considered eligible for government services.

One implication of this argument is that we should expect to see levels of satisfaction with the government and access to government services to go hand in hand with subjects' self-representation as Sudanese as opposed to members of their peripheral tribe or region of origin. Moreover, we should see this association manifest itself after partition, when the provision of government services to peripheral groups deteriorated.

This is precisely what we observe for the Nuba. Table 4 shows coefficient estimates from individual linear probability models of an indicator that captures whether a subject identifies as Sudanese (instead of as a member of the subject's tribe or region of origin) on several measures of satisfaction with public or government-related services. Satisfaction is measured on a four-point scale, and coefficients capture the change in the probability of the subject identifying as Sudanese associated with a one-point change in satisfaction. In the post-partition data we see a significant correlation between self-description as Sudanese and satisfaction with government services. Yet before partition, (non-)identification as Sudanese was not similarly entwined with economic and political realities.

For Northerners, on the other hand, feeling Sudanese is not significantly conditional on access to and satisfaction with government services, neither pre-partition nor post-partition, as shown in Table 5. (For Southerners, we also do not see significant results post-partition as we do for Nuba respondents. One reason is that our Southern sample is comparatively small, but the key reason is that satisfaction levels as we measured them are very low across the board for Southerners that remained in Khartoum, whether they have chosen to self-represent as Sudanese or not.)

Aside from the fact that subjects from peripheral areas, and in particular Nuba and Southern respondents, appear to re-rank existing identity attributes, there is also evidence that they try to assimilate by adopting, or at least claiming to have adopted, traits that did not necessarily form part of their identity choice sets in the past. Southerners and others confronted with Northern hostility have not moved to sharpen the boundaries of their own group, but instead we see evidence of attempts to defuse Northern hostility by becoming "more Northern," to the extent that this is possible.

Figure 9 provides evidence in this regard by showing how respondents reported their

[29]Interview 5403

| | Feel Sudanese, not [tribe], Round I | Feel Sudanese, not [tribe], Round II | Feel Sudanese, not [region], Round I | Feel Sudanese, not [region], Round II |
|---|---|---|---|---|
| Satisfied with public services | -.025<br>(.023)<br>$N = 214$ | .058<br>(.031) †<br>$N = 169$ | .008<br>(.023)<br>$N = 218$ | .058<br>(.029) *<br>$N = 170$ |
| Satisfied with health services | -.025<br>(.018)<br>$N = 222$ | .060<br>(.031) †<br>$N = 167$ | .004<br>(.019)<br>$N = 225$ | .076<br>(.029) *<br>$N = 168$ |
| Satisfied with schools | -.001<br>(.021)<br>$N = 213$ | .068<br>(.029) *<br>$N = 163$ | .009<br>(.021)<br>$N = 216$ | .068<br>(.027) *<br>$N = 164$ |
| Satisfied with water services | .007<br>(.018)<br>$N = 221$ | .059<br>(.026) *<br>$N = 170$ | -.003<br>(.018)<br>$N = 224$ | .062<br>(.024) *<br>$N = 171$ |
| Satisfied with security services | .025<br>(.018)<br>$N = 224$ | .030<br>(.026)<br>$N = 167$ | .002<br>(.018)<br>$N = 227$ | .041<br>(.024) †<br>$N = 168$ |
| National government meets needs | .035<br>(.022)<br>$N = 193$ | .026<br>(.028)<br>$N = 140$ | .012<br>(.022)<br>$N = 196$ | .048<br>(.025) †<br>$N = 141$ |

Linear probability models, adjusted for gender and age.
* significant at the 95% level, † 90% level.

Table 4: Government services, regional and tribal identification (Nuba)

| | Feel Sudanese, not [tribe], Round I | Feel Sudanese, not [tribe], Round II | Feel Sudanese, not [region], Round I | Feel Sudanese, not [region], Round II |
|---|---|---|---|---|
| Satisfied with public services | -.003<br>(.013)<br>$N = 446$ | .009<br>(018)<br>$N = 328$ | -.010<br>(.014)<br>$N = 445$ | .024<br>(.020)<br>$N = 326$ |
| Satisfied with health services | .005<br>(.012)<br>$N = 447$ | .006<br>(.017)<br>$N = 326$ | -.011<br>(.013)<br>$N = 446$ | .017<br>(.018)<br>$N = 324$ |
| Satisfied with schools | .013<br>(.012)<br>$N = 399$ | .033<br>(.018) $^{\dagger}$<br>$N = 289$ | .0002<br>(.013)<br>$N = 397$ | .044<br>(.020) $^{*}$<br>$N = 287$ |
| Satisfied with water services | .006<br>(.012)<br>$N = 447$ | .013<br>(.016)<br>$N = 329$ | .013<br>(.013)<br>$N = 445$ | .018<br>(.017)<br>$N = 327$ |
| Satisfied with security services | .001<br>(.012)<br>$N = 452$ | .015<br>(.016)<br>$N = 326$ | -.003<br>(.013)<br>$N = 450$ | .023<br>(.017)<br>$N = 324$ |
| National government meets needs | -.005<br>(.014)<br>$N = 345$ | .021<br>(.022)<br>$N = 207$ | .002<br>(.015)<br>$N = 343$ | .043<br>(.024) $^{\dagger}$<br>$N = 206$ |

Linear probability models, adjusted for gender and age.
$^{*}$ significant at the 95% level, $^{\dagger}$ 90% level.

Table 5: Government services, regional and tribal identification (Northerners)

region of origin in 2011 compared to 2010. Subjects do not redefine their region of origin easily, but we see a trend toward identification with relatively central parts of the country. In particular, 17% of Kordofanis in the sample identified as being from the North-Central region, which borders Kordofan on its northern side, during the post-partition survey, and 9% of Nubas self-identified as Kordofanis. The tribes of the Nuba Mountains are culturally and politically distinct from the mostly Arabic Kordofani tribes, but the Nuba Mountains sit in the far south and form part of South Kordofan state. This means that a Nuba may be able to pass as a Kordofani, but will have difficulty passing as an indigene of the North-Central region, however attractive that might be. Conversely, an Arabic Kordofani may be able to claim a riverine Arabic heritage.

These results hint at the fact that adaptation is constrained. An individual's decision to try to show that he or she belongs is circumscribed by contextual factors and characteristics of the individual that may not be amenable to change. His or her agency is limited.

Attributes vary greatly in terms of the difficulty of uptake. Consider the language spoken by subjects at home on the one hand and their religion on the other. In the context of Sudan, religious groups are far more difficult to join and, more importantly, to leave than, say, the Arabic-speaking community. While Arabic is the language of the Khartoum government, it is also a lingua franca throughout the region. We would expect, then, to see relatively more change in subjects' reported home language than in their proclaimed religion.

Tables 6 to 9 shows that this is the case. Table 6 shows the home language reported by those Southern respondents who were interviewed in Khartoum both at the end of 2010 and the end of 2011.[30] Remarkably, the vast majority of respondents who reported primarily speaking a Southern language at home in 2010 appear to have switched to primarily speaking Arabic at home in 2011. This is true for about 96% of those who reported Shilluk, a Nilotic language spoken in South Sudan, as their home language in 2010 (an estimated 10.2% out of 10.6%), and about 78% of those who reported primarily speaking Dinka at home in 2010.[31] We see similar adaptation among Nuba respondents, as shown in Table 7.

Religion, on the other hand, is a "stickier" attribute. Most Muslim Southerners have remained Muslim in the North, and most Christian Southerners have remained Christian, but about 11% of Christian Southerners now self-describe as Muslim (7.9% out of a total of 69.5%), as seen in Table 8. The fact that this figure is not larger could indicate that respondents hesitate to jettison their faith, or it could indicate binding external constraints (such as restrictions on admitting Southerners to mosque).[32] Again, we see similar rates of

[30]Cell percentages for the two-way table are shown in Table A.12 in the appendix.

[31]We are not able to verify whether respondents did in fact change their home language or changed only how they self-report their home language, but even the latter can be a sign of meaningful adaptation.

[32]Note that not all Southern tribes and not all Southerners have historically been Christian. Muslims are

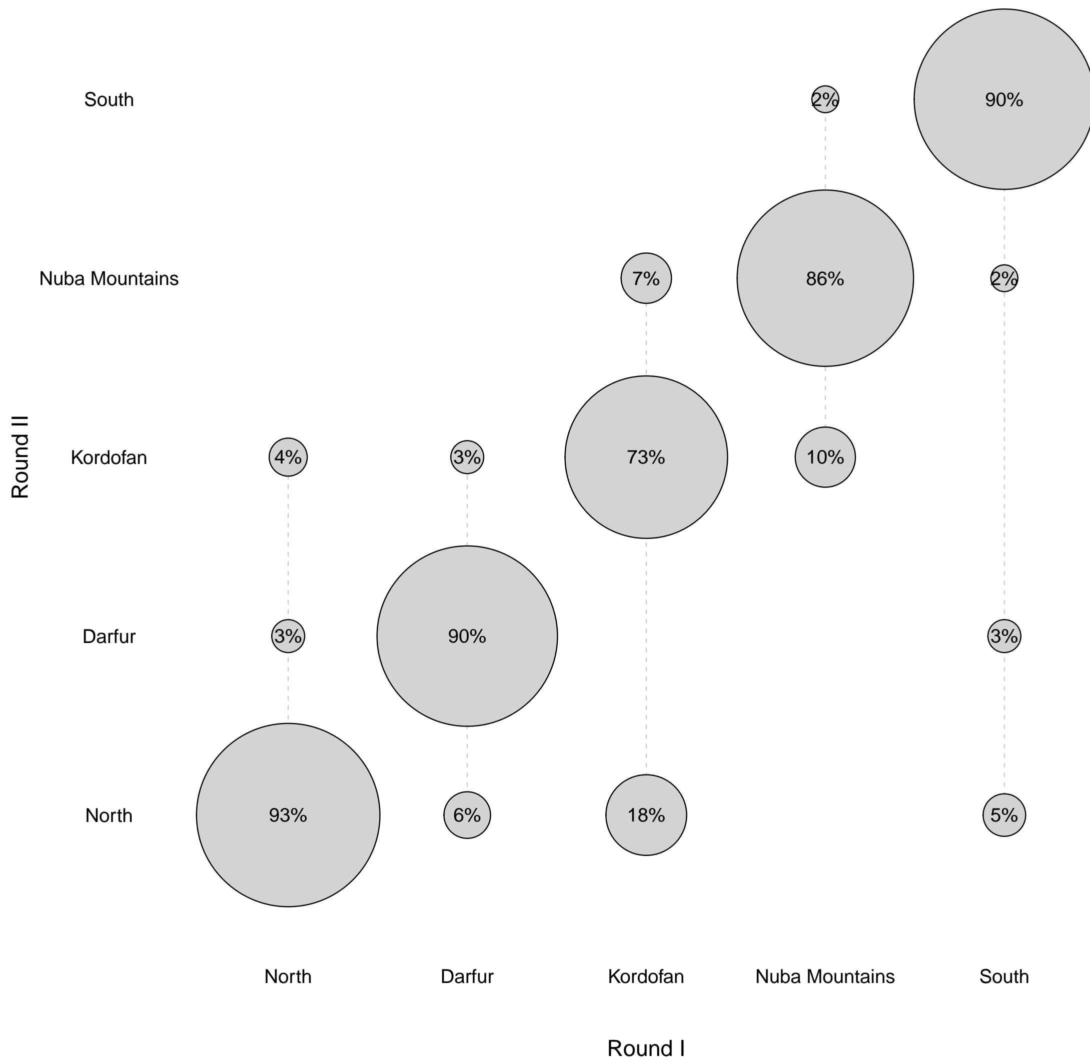


Figure 9: Changes in regional identification

| | | Home language (Round II) | | | | |
|---|---|---|---|---|---|---|
| | | Arabic | Shilluk | Dinka | Other | Total |
| | Arabic | 97% | | | 3% | 100% |
| Home language | Shilluk | 96% | 4% | | | 100% |
| (Round I) | Dinka | 78% | | 22% | | 100% |
| | Other | 61% | | | 39% | 100% |

Table 6: Home language for Southerners remaining in Khartoum

| | | Home language (Round II) | | |
|---|---|---|---|---|
| | | Arabic | Nuba | Total |
| Home language | Arabic | 98% | 2% | 100% |
| (Round I) | Nuba | 83% | 17% | 100% |

Table 7: Home language for Nuba

| | | Religion (Round II) | | |
|---|---|---|---|---|
| | | Muslim | Christian | Total |
| Religion | Muslim | 94% | 6% | 100% |
| (Round I) | Christian | 11% | 89% | 100% |

Table 8: Religious self-identification of remaining Southerners

change among Nuba subjects, as shown in Table 9.

Finally, Southerners (and to a lesser extent other minorities) also have an exit option: They can migrate. In general, post-partition minorities that remain on the "wrong" side of a new international border can adopt one of two main strategies: They can try to cross the border, or they can stay behind and try to adapt. Adaptation is not usually easy—South Sudanese in Khartoum are reeling from their loss of citizenship and high rates of street-level intimidation and violence—but neither is relocation, which is expensive, can require liquidating assets at rock-bottom prices, and potentially leaves the migrant in a place barren of economic opportunity. We discuss this trade-off in depth in Beber, Roessler, and Scacco (2016).

In this paper we note that leaving Khartoum changes, but does not in fact entirely remove pressures to adapt. About half of the Southerners (48%) included in our initial sample had left Khartoum at the time of the follow-up interviews. Figure 10 shows the post-partition locations for subjects who identified as Southern at the time of the initial interview.

Tables 10 and 11 show that adaptation is not limited to Southerners remaining in the North, but may also present a challenge for Southerners "returning" to the South, some of whom have lived in Khartoum their entire lives. Table 10 shows just the converse of the

comparatively common among Southerners born in Khartoum, and are more likely to stay in North Sudan.

| | | Religion (Round II) | | |
|---|---|---|---|---|
| | | Muslim | Christian | Total |
| Religion | Muslim | 99% | 1% | 100% |
| (Round I) | Christian | 15% | 85% | 100% |

Table 9: Religious self-identification of Nuba

Figure 10: Southern respondents, round II

| | | Home language (Round II) | | | | |
|---|---|---|---|---|---|---|
| | | Arabic | Shilluk | Dinka | Other | Total |
| | Arabic | 88% | 12% | | | 100% |
| Home language | Shilluk | 23% | 77% | | | 100% |
| (Round I) | Dinka | 65% | | 24% | 11% | 100% |
| | Other | 17% | 31% | 21% | 31% | 100% |

Table 10: Home language for Southerners who have migrated

change shown in Table 6: About 30% of those who reported speaking Arabic as their home language in 2010 now report primarily speaking a Southern language at home.[33]

Sometimes there are family reasons for adopting a different language. One respondent told us that in Juba, "my uncles speak Shilluk. They do not know Arabic. We didn't speak Shilluk a lot in Khartoum because we were used to talking in Arabic too much in the society," but the family has now switched.[34] But Arabic-speakers in South Sudan are also stigmatized, both in casual settings ("They think that people from Khartoum have 'Arab culture.' They get angry and say, 'Don't use the enemy language."')[35], in the market ("When I got to the market, I start talking in Arabic and they realize I speak Khartoum Arabic, so they change [their behavior] directly and treat you badly.")[36], and in interactions with government officials ("One time I went to the ministry and when I was talking in Arabic they responded to me in English. They say these people from Khartoum, they don't know how to think. They don't know how to understand.")[37]

Table 11 shows that religion, too, is subject to change among those migrating to the largely Christian South. The few Muslim Southerners migrating to the South appear to largely adopt the South's majority religion and self-describe as Christian after partition, as shown in Table 11. This is also mirrored in stories that recently arrived subjects shared with us during qualitative interviews conducted in Juba. One Muslim woman complained about how "hard" it was to follow her religion in Juba: "For example now is the month of Ramadan and you are in your place of work and they don't give you time to take a rest because you're fasting."[38] Another man spoke of those who showed their Muslim faith being harassed on the street: "One time I saw a girl from Khartoum face a problem because

[33]Results for Southerners who reported speaking Dinka as their primary home language in 2010 and later migrated are sensitive to the exclusion of replaced respondents. Without these respondents, we estimate that 61% of these Southerners continue to speak Dinka as their primary home language in 2011, compared to 24% (1.6% out of 6.6%) reported in Table 10. See also Table A.13 in the appendix for cell percentages.

[34]Interview 157.

[35]Interview 612.

[36]Interview 2583.

[37]Interview 448. Note that Arabic in these quotes refers to Sudanese Arabic, which is distinct from the pidgin Juba Arabic, which is widely spoken and understood in the southern areas of South Sudan.

[38]Interview 1589.

| | | Religion (Round II) | | |
|---|---|---|---|---|
| | | Muslim | Christian | Total |
| Religion | Muslim | 1% | 99% | 100% |
| (Round I) | Christian | 2% | 98% | 100% |

Table 11: Religious self-identification of relocated Southerners

she was wearing a baya [full covering]. People in Juba told her, 'Why are you wearing this!? You are a jalaba [Arab]!"[39]

Southerners and other minorities have faced tremendous challenges in post-partition greater Khartoum, and out-migration is an obvious alternative to trying to adapt to an openly hostile government and Northern public. However, migration does not preclude identity change, it provides a different avenue for subjects to reconfigure their identity characteristics. With or without migration, the preexisting identity profile of a "Khartoum Southerner" (or a "Khartoum Nuba," for that matter) has essentially been rendered obsolete by Sudan's partition, as subjects respond to incentives and struggle to find safety and success in the new Sudan and beyond.

## 7 Conclusion

Partition has created a set of highly difficult circumstances for Southerners and other minorities in Sudan, as they face government hostility, discrimination and outright oppression in everyday life. Many Southerners have decided to relocate to South Sudan, but difficulties await these individuals, too. The underdeveloped South lags far behind in available economic opportunities, and new arrivals are frequently greeted with suspicion. This paper shows that in these contexts, subjects are surprisingly willing to adapt and redefine themselves as needed in order to gain security and well-being. Overall, identities appear malleable and responsive to incentives and changes in the political context.

To make this point, we presented data from a panel survey of about 1,400 respondents that we implemented in Sudan and South Sudan in 2010 and 2011, i.e. before and after the partition that created the newly independent South Sudan. We find that partition changes not only how individuals rank various preexisting elements of their identity profiles (such as national and regional or tribal affiliations), but also creates incentives for subjects to take on traits that they did not previously possess (for example by changing their self-described faith from Christian to Islam). We also suggest that not all identity characteristics are created equal. Some, such as the language spoken by respondents at home, are more malleable than others, such as religion.

[39]Interview 1388.

This paper forms part of a larger panel survey project that seeks to address how partition has affected ethnic minorities living in northern Sudan. Most of the prevailing analysis and assumptions about the referendum and Sudanese public opinion are based on impressionistic evidence. The survey presented here is unusual in bringing systematic data on Sudanese attitudes at various points during Sudan's partition to bear on these issues.

We document identity change in this paper, but have left two questions for future research. First, we have left open the question of who is particularly likely to try on new identifying characteristics. While we observe identities in transformation, we have for now left the correlates of identity change largely unexplored. Second, the appearance of identity change raises the question whether the attendant cultural loss has a negative effect on reported well-being. Some research suggests that this could be the case (Bhugra and Becker, 2005). While we suggest that identity change is motivated by the pursuit of well-being, it could be that cultural displacement in itself negatively affects well-being.

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# Partition, Migration, and Ethnic Identities
# Evidence from a Panel Survey in Sudan

## — Appendix —

Figure A.11: Sudan

**Sudan Survey 2010** | **Tertiary Survey No:** ...... ...... ......

**Section G: Personal information**

This section is separate from the rest of the survey. No one in Sudan will be able to link your answers on this part of our survey to any of your answers on other parts of the survey. All of your answers are **completely confidential**.

(G1) We would like to interview you again several months from now.
Is this okay with you? ¹○ Yes ⁰○ No -88□ DK -99□ RF

**IF NO, SKIP TO SECTION I. OTHERWISE CONTINUE.**

(G2) I would like to make sure that we have your correct contact information. We want to know the place where you usually sleep, not your ancestral lands.

Respondent name: ........................................................ -99□ RF

Address: ........................................................................ -88□ DK -99□ RF

........................................................................

........................................................................

........................................................................

Phone: ........................................................................ -77□ NA -88□ DK -99□ RF

(G3) Do you have another home (such as a permanent family home)? [Include state, district, village or neighborhood, nearest city, and country if not Sudan. Include any other information that can help in locating the address.]

Address: ........................................................................ -77□ NA -88□ DK -99□ RF

........................................................................

........................................................................

........................................................................

Phone: ........................................................................ -77□ NA -88□ DK -99□ RF

(G4) In case you move, can you tell us the names and phone numbers of a few friends or relatives who are sure to know where you are, and how to contact you? These should be family or friends that we could find even if you move away. [Typically this excludes spouses and children, who will move with the respondent.] We will not contact them unless we need to in order to get in touch with you.

***Contact 1:***

Name: ........................................................................ -99□ RF

Relation to respondent: .................................................... -99□ RF

Phone: ........................................................................ -77□ NA -88□ DK -99□ RF

***Contact 2:***

Name: ........................................................................ -99□ RF

Relation to respondent: .................................................... -99□ RF

Phone: ........................................................................ -77□ NA -88□ DK -99□ RF

***Contact 3:***

Name: ........................................................................ -99□ RF

Relation to respondent: .................................................... -99□ RF

Phone: ........................................................................ -77□ NA -88□ DK -99□ RF

(G5) Is there any other information that would be helpful in finding you in the future (e.g. a future address if you know you are going to move soon)?

..............................................................................................................

..............................................................................................................

You can also contact us, if you would like to share your opinions a few months from now, or if you would like to let us know where we can conduct a second interview. [Hand over the **study** contact information sheet.]

**CONTINUE WITH CONCLUDING SECTION I.**

[Interviewer: After concluding the interview, add the following information if the person has agreed to be interviewed again:]

(G6) How would you best describe the location of this person? What is the best way to find this person?

..............................................................................................................

..............................................................................................................

(G7) Enter the coordinates (longitude and latitude) that you can see on your GPS device when you leave the interview. Do NOT copy the coordinates from your recruitment sheet.

..............................................................................................................

..............................................................................................................

Figure A.12: Respondent contact sheet, round I

| | | |
|---|---|---|
| ID (Section G) | رقم تعريف (القسم G) | 7828 |
| PAU code | رمز الحي PAU | 2311 |
| Enumerator 1 | إسم جامع البيانات 1 | Ngor |
| Enumerator 2 | إسم جامع البيانات 2 | |
| Enumerator 1, ID | جامع رمز 1 | 23 |
| Enumerator 2, ID | جامع رمز 2 | |
| Interview date | التاريخ | 10/11/2010 |
| Start time | زمن البداية | 13:34 |
| End time | زمن النهاية | 14:40 |
| A1a | من أين أنت؟ | Gaalia |
| A1b | الى اين تنتمي اصولك؟ | Um Doam |
| A2 | أين ولدت؟ الولاية | 23 |
| A2other | أين ولدت؟ اخري | |
| A3 | أين ولدت؟ أقرب مدينة أو مركز | Juba |
| A4 | هل أقمت لفترة من قبل خارج الخرطوم؟ | 1 |
| A5 | أين؟ الولاية | 12 |
| A5other | أين؟ اخري | North Kardofan |
| A6 | أين؟ اقرب مدينة او مركز | Alobaied |
| A7 | سنوات في الخرطوم؟ | 36 |
| A9 | ماهي علاقتك برب الاسرة التي تعيش معها؟ | 3 |
| A9other | أخرى | |
| A11 | ماهي حالتك الزوجية الحالية؟ | 1 |
| A10 | عمر؟ | 44 |
| A12 | اطفال؟ | 1 |
| A13 | لغة؟ | 1 |
| A13other | لغة؟ أخرى | |
| A15 | ماهي منطقتك الأصلية؟ | 5 |
| A15other | ماهي منطقتك الأصلية؟ أخرى | |
| A18 | ماهي ديانتك؟ | 2 |
| A19 | الجماعة الدينية؟ | |
| A19which | حدد | |
| A20 | إن كان مسيحيا؟ | 1 |
| A20other | إن كان مسيحيا؟ أخرى | |
| A22 | ماهي قبيلتك؟ | Jaliyyin |
| A23 | ماهي قبيلة والدك؟ | Gaalia |
| A28 | ماهو الحي الذي تعيش فيه حاليا؟ | Umbada-el Tagwa |
| A29 | سنة في حي؟ | 16 |
| A47 | ماهي مهنتك الحالية؟ | 2 |
| A47other | ماهي مهنتك الحالية؟ أخرى | |
| Latitude | خط العرض | |
| Longitude | خط الطول | |
| Notes | تلاحظ | |
| Paved road | الإسفلت | 0 |

Figure A.13: Example of respondent information sheet, round II

| | | Home language (Round II) | | | | |
|---|---|---|---|---|---|---|
| | | Arabic | Shilluk | Dinka | Other | Total |
| | Arabic | 77.4% | | | 2.3% | 79.7% |
| Home language | Shilluk | 10.2% | 0.4% | | | 10.6% |
| (Round I) | Dinka | 6.2% | | 1.7% | | 7.9% |
| | Other | 1.1% | | | 0.7% | 1.8% |
| | Total | 94.9% | 0.4% | 1.7% | 3.0% | 100% |

Table A.12: Home language for Southerners remaining in Khartoum

| | | Home language (Round II) | | | | |
|---|---|---|---|---|---|---|
| | | Arabic | Shilluk | Dinka | Other | Total |
| | Arabic | 69.1% | 9.1% | 0.4% | 0.1% | 78.7% |
| Home language | Shilluk | 1.5% | 5.1% | | | 6.6% |
| (Round I) | Dinka | 4.3% | | 1.6% | 0.7% | 6.6% |
| | Other | 1.4% | 2.5% | 1.7% | 2.5% | 8.1% |
| | Total | 76.3% | 16.7% | 3.7% | 3.3% | 100% |

Table A.13: Home language for Southerners who have migrated