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Local Sequential Patterns: The Structure of Lynching in the Deep South, 1882-1930*

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Abstract

White-on-black violence was a fact of life in the Deep South during the decades straddling the turn of the century. Yet though the lynching of blacks is historically significant, it was, statistically speaking, a relatively rare event. While each lynching is associated with a complex and often gruesome narrative, particularities often overwhelm efforts to reveal anything other than broad structural determinants or proximate causes. Efforts to apply narrative methods have been limited to the analysis of a single lynching incident, and yield more insight into patterns of interaction than into the phenomena of lynching as a whole. This article offers a new analytic description of the temporal structure of local lynching histories in the Deep South between 1882 and 1930. Sequential analysis reveals robust variation in the temporal pattern of local lynching; interpretation of the finite set of patterns of lynching histories focuses on the sequential consequences of various microlevel mechanisms, and demonstrates the advantages of moving beyond the analysis of discrete incidents.

In 1930, James Irvine, a black wage-earning farm hand, was accused of raping and murdering a 16-year old white girl in Irwin county, Georgia. Over a thousand men searched through the night for him, capturing him early the next morning.

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This mob seized him from the sheriff's custody as they passed the site where the girl's body was found; in front of the rest of an assembled crowd — which included women and children — Irvine was tied to a tree with chains. There he was repeatedly jabbed in the mouth with a pointed stick, his fingers, toes, and other body parts were cut off and saved as souvenirs, and finally, he was hung from the tree and burned alive. The same year, S.S. Mincey, a seventy year old black man who was active in his local Republican party, was severely beaten in his home by a small group of masked men. Late at night, under cover of darkness, he was brought outside and left on the side of the road to die.¹

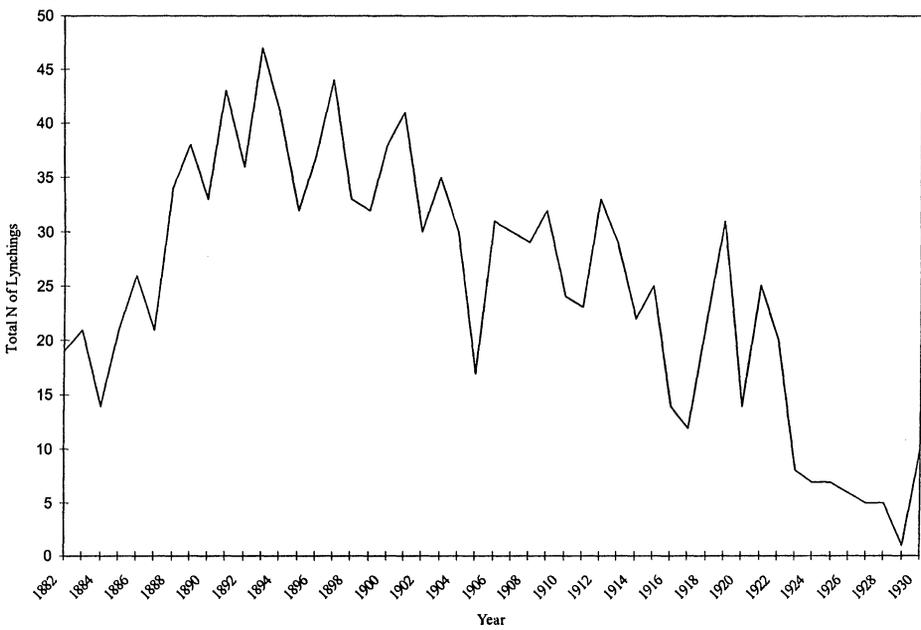
These brief narratives recount but two of the hundreds of lynchings that occurred in the Deep South in the late nineteenth and early twentieth centuries. All told, over 1200 blacks were lynched at the hands of whites in this region between 1882 and 1930, an explosion of violence which profoundly shaped the social landscape of the post-reconstruction South.

Nevertheless, from our vantage point today we might reasonably wonder what it was about the deaths of Irvine and Mincey that made each of them a lynching. After all, in their actual details the two incidents are remarkably dissimilar. Clearly the race of the victim is important, but the simple pattern of white on black murder was not then (nor is it now) sufficient to constitute a lynching.² Though both of these events were intentional, extra-legal killings of blacks by whites, here the similarity ends. Irvine was tortured and killed in broad daylight by a public mob after being accused of a brutal crime against a young white woman. The large crowd, and the highly ritualized form of the killing, are both consistent with our modern stereotyped conceptions of racially motivated lynchings in the South. In contrast, Mincey was killed secretly by a small group of men because of a personal grievance known only to them; there was no public mob, and though the killing was certainly brutal, there were no ritualistic components to the event. Mincey's beaten body was left by the side of the road, unsigned, and unclaimed.

These diverse killings, and many others, were produced by real people pursuing specific expressive and/or instrumental ends. Like the motivations for suicides reflected in notes, the motives of these persons are largely inaccessible to us and, even if we could recover them, are not all that is of sociological interest. Rather, we should remember that what made each of these murders a lynching was that actors and observers *interpreted* it as a lynching, rooted in the context of early twentieth century Southern race relations and the recent history of other lynchings. In this respect, it is the regularity and frequency of these actions that is historically — and sociologically — significant.

Against this background, the goal of this article is to focus our gaze more directly on the variation and variability in the phenomena of lynching in the Deep South. I begin by describing the empirical distribution of lynching in time and space, and then turn to a discussion of various strategies others have used to overcome

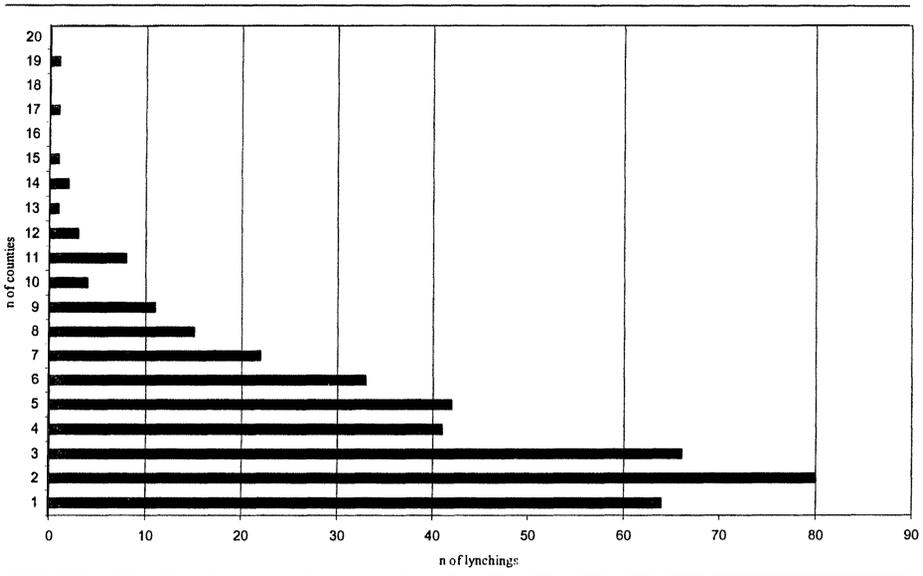
FIGURE 1: Temporal Distribution of Lynching Aggregating across All Counties



the particular problems semi-rare events like lynching pose for historical sociologists. Building from substantive insights gleaned from these predecessors, I reconceptualize the unit of analysis as the county-level *distribution* of lynching, and adapt an existing method for analyzing sequential data in order to uncover patterns in the temporal sequencing of lynching incidents. These analyses demonstrate that the temporal distribution of lynching within Southern counties can be distilled into a finite set of distinct sequential patterns, each of which is consistent with theoretically critical narrative components of the dominant *type* of lynching most common within that sequence.

Beyond these substantive goals, this article has a broader aim: to demonstrate the utility of analytic description for thorny problems in historical sociology. Specifically, I show how sociologists can exploit pattern recognition algorithms to systematically analyze relatively rare historically transformative events, thereby remaining sensitive to both local level context and the enterprise of generalization. I conclude by suggesting that additional substantive payoffs are possible by using a similar analysis strategy in other contexts.

FIGURE 2: Spatial Distribution of Lynching Aggregating across Years

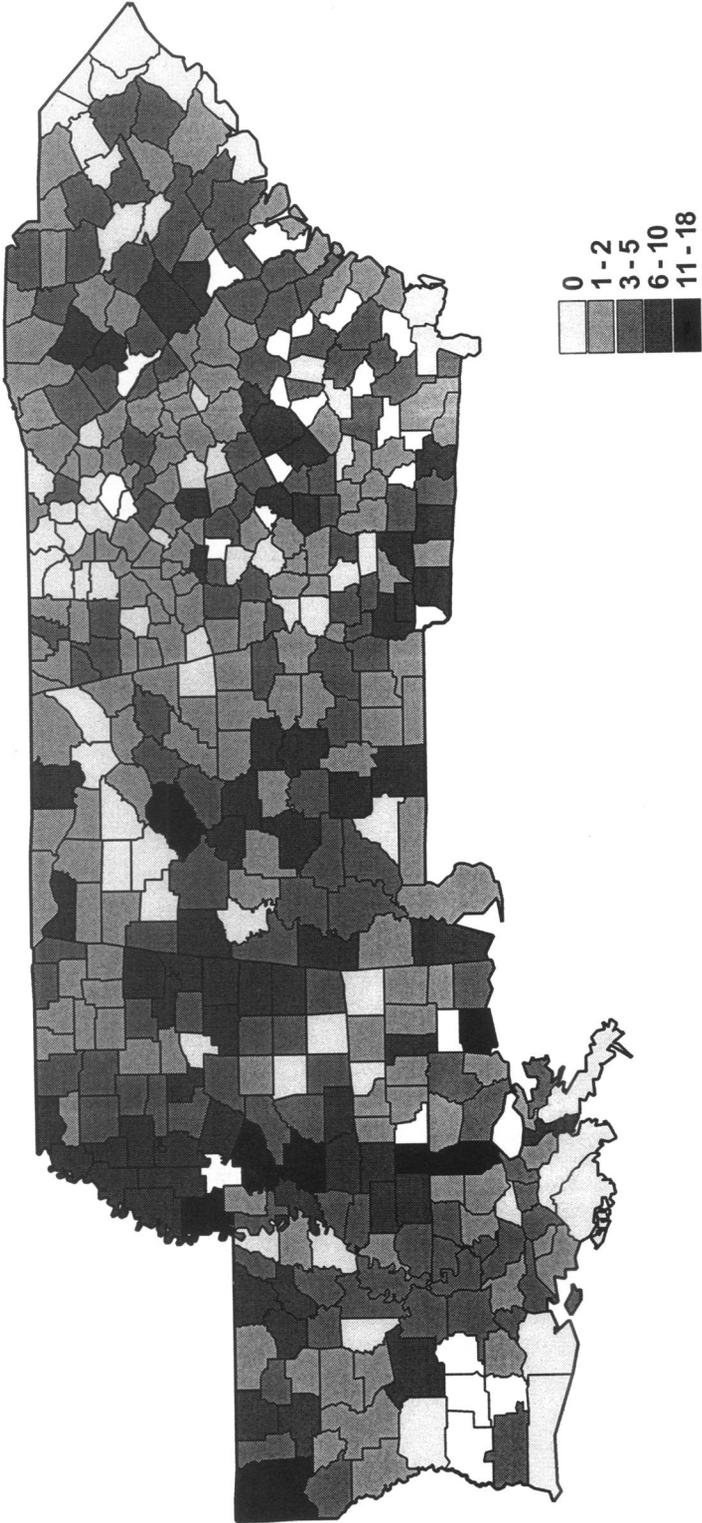


Lynching and Historical Sociology: The Problem of Analyzing Semi-rare Events

During the years that straddled the turn of the century, lynching was quite widespread in the both the Southern and Western portions of the U.S. However, it was in the South, and most particularly in the Deep South, that lynching was quickly and violently written into the fabric of post-reconstruction life.³ Figure 1 shows the yearly prevalence of white-on-black lynchings in the five states which constitute the Deep South (Alabama, Georgia, Louisiana, Mississippi, and South Carolina), aggregating across the entire region. Though there are obvious trends in these data — lynching was most frequent just before the turn of the century — there are also significant peaks and valleys in the incidence of lynching. By aggregating events across space, we see that the temporal variation is profound, both in broad terms and in terms of year-to-year variation. Unless these wild swings are the result of purely random variation, analyses which begin by aggregating lynching events over time are potentially problematic.

Examining the spatial distribution of lynching in the Deep South shows similar variability. Figure 2 aggregates lynchings across time, and reports the total number of white-on-black lynching incidents in counties in the Deep South during the period 1882-1930. Clearly, some counties had many lynching incidents, while others had very few: 64 counties never had a lynching within their borders. Figure 3 arrays the same data geographically, shading counties with fewer lynchings in gray,

FIGURE 3: N of Lynching Events, by County



while counties with more lynchings appear in darker hues. Here we see that though lynching was more common along the Mississippi river, it is difficult to visually discern a crisp spatial pattern. Throughout the Deep South, counties with few lynchings were often surrounded by counties with many lynchings; hence analyses that aggregate over space, and therefore ignore variability in the geographic pattern of lynching, are also incomplete.

From this aggregated data we suspect — either intuitively or because we are familiar with the large body of research addressing the causes of lynching (e.g., Tolnay & Beck 1995) — that variation in the level of lynching is associated with variation in other, sociologically meaningful factors that also vary across time and space. But buried beneath both of these aggregate images is the fact that each lynching that occurred in the Deep South between 1882 and 1930 was locally unusual, and had its own complex, often quite grisly, narrative (Raper 1933). Reading accounts of these incidents, it quickly becomes obvious that lynchings were exceedingly heterogeneous, and that no particular narrative can serve as an adequate representative of all lynching incidents. Analytically, because lynching incidents unfolded in multiple ways, there is no adequate way to reduce these diverse and complex narratives to a single causal story which is acceptable at the level of meaning. Yet the overall prevalence of lynching prohibits us from treating any *particular* incident as culturally extraordinary or uniquely significant, at least sociologically, since lynchings gained cultural significance only when understood in light of events which preceded, and ultimately, followed them.

There is no doubt that the lynching of blacks by whites was an extraordinary and significant phenomenon in the south during the period 1882-1930, a phenomenon that played a crucial role in coloring social relations in the entire region. But there is a duality to lynching's extraordinariness, for lynchings were simultaneously relatively prevalent *and* diverse.⁴ Though it presents unusual challenges for sociological analysis, understanding this duality is fundamental to understanding lynching as a historical event (Sewell 1996).

Diversity, Prevalence, and Historical Sociology

Tension between extraordinariness born of diversity and extraordinariness born of prevalence, clearly evident in the distributional images of lynching, plagues historical sociology more generally. The goal of historical sociology is to simultaneously offer contextually specific and theoretically generalizable explanations of historical phenomena, yet different classes of historical subjects pose different challenges to this goal. For extremely rare phenomena (revolutions are the classic example) it is difficult to make compelling generalizations since the particularistic or unique features of each instance cannot be substantively ignored, yet the inherent significance of each episode may warrant such careful

study. More frequently repeated events (e.g., riots) may invite us to sacrifice contextual and temporal detail, without undue loss of meaning. Yet some kinds of events, of which lynching during these years is a prime example, are a challenge because they are simultaneously heterogeneous and semi-rare.

In light of this broad problem, styles of explanation in historical sociology tend to roam between two poles: at one pole lies historically oriented research that emphasizes particularistic, or contextually specific explanation (e.g., “thick description”), while at the other pole lies work that strives to offer generalizable explanations, applicable across a broad range of historical or geographic contexts. Particularistic explanations are often interpretive, while more general models may focus on determining proximate causes of historical phenomenon. Comparative analysis seeks a middle ground for small N events, resting on essentially descriptive strategies that emphasize classification and the use of theoretically inspired ideal types.

Case-Based Analysis

For the small set of historical phenomena in which each occurrence has independent historical or sociological meaning, careful and contextually rich case study and comparison is clearly a useful and defensible analytic strategy. Revolutions are the most obvious and well-studied example of such rare and intrinsically significant events (e.g., Bearman 1993; Gould 1995; Sewell 1980; Traugott 1985; Zaret 1985).⁵ Such single case analyses by their very nature preserve the inherent narrativity of large-scale historical events like revolutions, and make it possible to conceive of chains of causally interrelated sequences rooted in historical context – even if the temporal connections are not explicitly theorized.

Intensive, case-based methods have been applied to specific lynching incidents as well, yielding some provocative insights. In addition to the numerous historical accounts of particular lynchings (e.g., McGovern 1982), Larry Griffin offers an innovative explanation of the lynching of David Harris in Bolivar county, Mississippi (Griffin 1993). Harris was lynched by a few white men after an argument about the sale of whiskey resulted in the death of one of the white men who was trying to buy liquor. Griffin uses a technique called Event Structure Analysis, developed by David Heise (Corsaro & Heise 1990; Heise 1989, 1991), to generate a graphical representation of the causal inter-relationships of components of the Harris lynching. Based on this formalized description of the narrative, Griffin’s substantive interpretation of this lynching identifies a particular moment — when the white man’s friends report that he has been killed — as critical for the subsequent unfolding of the lynching of David Harris.

Griffin’s work on the structure of single lynching is an important contribution to the analysis of short-term process, because it offers insight into how particular discrete “elements” catenate into a complex event: his article describes, in both

concrete and abstract form, the microlevel process by which a specific argument became a lynching. Such models of microlevel unfolding processes inherently rest on the analyst's deep contextual knowledge, and therefore the models themselves (even in their generalized form) cannot easily be abstracted from their discrete spatial and temporal context.⁵ Except under the rare condition that the analyst believes the relevant historical context is constant over time and space, comparison of formal narrative structures across cases is impossible. Given the temporal and spatial heterogeneity of lynching in the Deep South, and the variability in salient contextual features (e.g., proportion black, the price of cotton, reliance on the cotton economy, the local history of lynching), assuming a constant historical context is clearly untenable in this setting. Consequently, though careful analysis of a single case is possible, the micro-level mechanism revealed in Griffin's analysis yields only a partial image of the greater phenomenon of lynching. Given the diversity of narratives, there is likely no single proximate micro-mechanism at play.

Equally problematic is the inherent emphasis on discrete incidents, decoupled from other incidents (here past and future lynchings) and consequences (changes in the expectations and behavior of whites and blacks). Thus, while case-based narrative analysis aims at revealing the process which yields a particular lynching, the method assumes that one is mired in context, which makes general, non-contextual processes inaccessible. What interpretive work like Griffin's *can* show is that lynching incidents were often highly contingent, and thus sociologically fragile.

Generalizable Causal Models

In stark contrast to interpretative case studies, there is a large body of research within historical sociology which is explicitly oriented toward generalizing beyond a handful of cases (see Kiser & Hechter 1991). The emphasis on generalizability has been championed by those wishing to assess the utility of specific theoretical models, a goal that sociologists usually accomplish via inferences drawn from estimating statistical models.⁷ Typically, such models abstract events from their specific contexts and examine the effects of structural or individual-level correlates common across contexts. The most comprehensive study of lynching in this tradition is found in Tolnay and Beck's outstanding book, *A Festival of Violence* (1995).

Tolnay and Beck's models have refined important general findings about the constellation of structural factors associated with the prevalence of lynching. Like most general sociological accounts of the causes of lynching, Tolnay and Beck's argument rests on a basic threat model, a model which posits lynching as the white population's response to some kind of real or perceived threat from blacks (Blalock 1967; Tolnay & Beck 1992a; Tolnay, Beck & Massey 1989). The threat thesis offers

a *general* motive for white on black lynching that is largely insensitive to the fundamental contextual (richly detailed) features of lynching events: the theory's main attraction is its parsimony.

On the whole, causal statistical models suggest that economic threats are at the root of lynching, and that lynching was more prevalent when and where whites' economic power was challenged (Reed 1972; Soule 1992; Tolnay & Beck 1995).⁸ Holding time constant, county-level models estimated for the Deep South find a robust curvilinear relationship between the proportion black in the county and the aggregate number of lynchings, a finding consistent with the economic side of Blalock's theory of inter-group relations (Blalock 1967). Time-varying models, which seek to explain year-by-year totals in the frequency of lynching by aggregating over broad geographic regions, demonstrate that lynching was strongly tied to the fortunes of the cotton economy. Lynching was less frequent when cotton prices were up, and more frequent during months and years when the cotton labor market was tight (Beck & Tolnay 1990; Olzak 1990; Raper 1933; Tolnay & Beck 1995). Other time-varying models show that while lynching had everywhere declined by about 1930, this decline was led in those areas with substantial early black out-migration where, presumably, a labor shortage emerged (Tolnay & Beck 1990, 1992b, 1995).

When statistical modeling of historical events is properly carried out, generalizability is maximized, but even so the substantive costs are high. The troublesome fact that most historical events are semi-rare is particularly difficult for statistical models of lynching. Because of the relative infrequency of lynching in any geographic area, typical "solutions" to this problem involve some form of aggregation, and yet statistical models typically ignore variation along the aggregated dimension (even when the dependent variable is a lynching rate). This means models that use counties as the unit of analysis cannot successfully incorporate local (county-level) temporal variation into the explanatory framework, despite the fact that counties in the Deep South were experiencing uneven economic, political, and demographic change during the period from 1882-1930 (Beck & Tolnay 1990). Similarly, efforts to capture the proximate causes of temporal variation in lynching must aggregate over large geographic regions which have distinct, though changing, structural characteristics (Olzak 1990). Thus the joint effects of variation across time and space are elided in standard regression and hazard models, thereby radically abstracting lynching from the local county history that produced them.⁹ Hence aggregation "solves" the problem of too few cases, but the problem is not just collapsing the heterogeneity. The problem is that both space and time structure the pattern of lynching, and hence condition its meaning.

Even more critical, however, is the fact that the most commonly estimated forms of causal statistical models are historically naive, incapable of capturing either the multiple time-horizons of causally relevant factors (Abbott 1988; Isaac & Griffin

1989; Stovel, Savage & Bearman 1996) or the highly contingent and interactive nature of social process as events unfold through time (Skocpol 1979; Tilly 1978, 1986). Interactions and temporal interdependencies are rarely captured in general causal models of lynching in the South.¹⁰

It is the abstraction of lynching events from their local historical and narrative context that presents the deepest challenge to standard quantitative models as a source of sociological understanding (Isaac 1997). Like local actors everywhere, those who lived during this period in the Deep South carried with them memory of their shared past; in times of upheaval these memories facilitate the development of repertoires of action and shape the possibilities for subsequent incidents (Griffin, Clark & Sanderberg 1997; Traugott 1995). Thus precisely because lynching was a piece in the puzzle of Southern social transformation, we should neither treat each incident as inherently equivalent nor model events in a historical vacuum.

Classificatory Schemes

Between interpretative case-based methods and general causal models lies a more descriptive analytic strategy for examining complex historical phenomena, one that relies on classificatory schemes. Descriptive classificatory strategies build from the recognition that even identifying concepts equivalent across contexts is often problematic (Collier 1998; Zerubavel 1996), and seek to retain more of the heterogeneity of individual incidents by proposing a finer classifications of events. The classificatory approach rests on analytically distinguishing different *forms* of events, and then examining each as an ideal type. This “conceptual stretching” is followed by the historian Fitzhugh Brundage in his award-winning book on lynching in Georgia and Virginia (Brundage 1993). Like Griffin, Brundage pays particular attention to narrative accounts of lynchings, but like Tolnay and Beck — and others committed to generalizable explanation — he does not limit his gaze to just a few cases.

Classificatory schemes such as Brundage’s are useful for the analysis of heterogeneous historical events because they help the analyst array complex data into neater packages which can then be manipulated and explained (Ragin 1987). Based on careful reading of narrative accounts, Brundage classifies every lynching in Georgia and Virginia into one of four distinct types: *mass mob*, *posse*, *terrorist*, or *private*. Though the threat hypothesis lurks as a background motive for all lynchings, Brundage presents this classificatory scheme as a heuristic device rather than as an explanatory framework. Brundage’s purpose, like Griffin’s, is to remind his readers that treating “lynching” as a single social phenomena ignores the fact that lynchings were the result of vastly different patterns of social interaction; his emphasis is less on explaining relative prevalence than on exploring and describing the wide variability in the phenomenon of lynching.

Styles of Analysis in Historical Sociology

To summarize, interpretive case-based methods offer complex, and contextually specific explanation of specific unfolding processes, yet the intention is not to generalize beyond a particular case. Case-based methods are especially problematic for semi-rare events like lynching, because they implicitly assume that the event under scrutiny is of *unique* historical importance.¹¹ At the other end of the spectrum are methods that aim to generalize beyond particular incidents. This family of strategies offers general causal stories for phenomena, but is largely insensitive to complex contingent and interactive effects. Statistical models for semi-rare events like lynching require collapsing either time or space, and modeling variation along the remaining dimension (often with thin data). This is troublesome, for distributions of historical events are often fundamentally patterned in both time and space. More significantly, these methods ignore the locally extraordinary meaning that resides in semi-rare events, meaning that consequently shapes subsequent possibilities. Finally, there are descriptive classificatory strategies which seek to emphasize variation within classes of events such as lynchings. Yet like the vast majority of causal statistical models, classificatory schemes — as conceived by Brundage and others — offer no insight into the interdependence of lynchings.

Previous analyses of lynching — from all traditions — have implicitly conceived of lynching incidents as discrete events (Olzak 1989). Though narrative analysts may recognize how prior incidents altered the social landscape, and statistically oriented studies may explore the causal effects of contagion or diffusion on the likelihood of subsequent incidents (see especially Tolnay, Deane & Beck 1996), neither approach explicitly models the long history of lynching as a unified event. In fact, both approaches are remarkably concerned with the *antecedents*, rather than with the sociological *meaning*, of widespread racially structured violence in the Deep South during this time period.¹²

The distinction between antecedents and meaning is worth noting, because the occurrence of events which are extraordinary due to both their heterogeneity and their prevalence may fundamentally alter the possibility of what will follow. As many have argued, it is essential to pay attention to the extent to which the histories of such incidents are patterned into robust sequences (Abbott 1992; Abell 1987), an insight that suggests fundamentally reconceiving the shape of what we consider historical events (see also Bearman, Faris & Moody 1999). Though Sewell's gaze is oriented toward a different class of historical events, his language is provocative:

[E]vents should be conceived of as sequences of occurrences that result in transformations of structures. Such sequences begin with a rupture of some kind — that is, a surprising break with routine practice. Such breaks actually occur every day — as a consequence of exogenous causes, of contradictions between structures, of sheer human inventiveness or perversity, or of simple mistakes in

TABLE 1: Pattern in Sequence

	Hypothetical Sequential Pattern	N of Incidents	Model Type
A	001111111000000000000000	6	Attention cycle model
B	000000000000000111111100	6	Attention cycle model
C	100010001000100010001	6	Pressure release model
D	1230000000000000000000	6	Acceleration model
E	000000000000000000000321	6	Learning model

enacting routines. . . . But whatever the nature of the initial rupture, an occurrence only becomes a historical event, in the sense in which I use the term, when it touches off a chain of occurrences that durably transform previous structures and practices. (Sewell 1996:843)

Our challenge, then, as historical sociologists, is to meaningfully abstract process from context, to retain critical pieces of the social fabric while moving beyond the limitations of single-case analyses. We are in need of analytic strategies that aggregate across many events, preserve indicators of spatial, temporal, and narrative heterogeneity, and recognize the interdependent nature of historical incidents. In the remainder of this article, I propose such a strategy for analyzing the temporal structure of semi-rare events, a strategy that ultimately reveals sociologically meaningful elements of individual narratives. The payoff is that by operationalizing semi-rare historical events as complex sequences unfolding through time, it possible to gain new insight into historical phenomena more frequent than revolutions but still rarer and more diverse than most statistical methods can handle.

Analysis of Sequential Pattern

The analytic strategy I propose facilitates identification and interpretation of local lynching patterns over time. By *pattern* I refer to regularized — or common — distributional sequence of events.¹³ This orientation stems from a fundamental belief that sociological meaning flows primarily from pattern — from the particular placement of elements into an ordered sequence — rather than simply from differences in the aggregate level of social activity.

Many others have thought about the implications of sequences for social life, both theoretically and empirically. The classic empirical application of sequential thinking is, of course, to the study of careers.¹⁴ Even before Spilerman's landmark work in 1977, career studies have long emphasized sets of transitions between jobs

FIGURE 4: Classification of Lynching Narratives

		Use of Ritual	
		No	Yes
Large-scale public participation	No	Private	Terrorist
	Yes	Posse	Mass Mob

Note: Adapted from W. Fitzhugh Brundage *Lynching in the New South* 1993. University of Illinois Press.

which are ordered in ways that carry meaning. As a body of work, these analyses have demonstrated that mobility outcomes are strongly conditioned by dynamic sequences of individual moves, net of more traditional status-inheritance effects (Harrison 1988; Spilerman 1977; White 1970). Likewise, much of the research in status attainment, economic sociology, stratification, and market structure rests on observed patterns of sequence data: tracking systems in schools (Rosenbaum 1976), the structure of internal labor markets within firms (Kalleberg 1988), models of role structure and exchange relations in economic markets (Baker 1984; Eccles & Crane 1988; White 1970, 1973, 1983) and so on. We often observe sequences cumulating into meaningful outcomes, yet we equally often fail to adequately model the dynamic components of these processes. Instead, one finds tacit recognition that sequences matter.¹⁵

Local Sequences of Lynching

In contrast to much of the previous attention to sequential process in sociology, here the conception of what constitutes a sequence is rather dramatically altered. Instead of describing how different component elements are organized to form a social entity we have a name for — a managerial career or a riot — the sequences I analyze reflect the temporal distribution of semi-rare events, preserving intervals with no incidents as zeros in the sequence. The payoff of this reconceptualization for the analysis of lynching is that it focuses our analytic gaze directly on the local temporal structure of lynching, rather than on particular incidents or single transitions: it is no longer necessary to collapse time or space in the radical ways that estimating standard regression-based models requires. Rather, the goal is to identify whether there are common patterns in the temporal pattern of lynching, and, to interpret observed patterns directly — without explicit reference to standard types of “exogenous causes” — by considering several underlying social processes that might produce different temporal patterns in sequences of lynching.

Sequential Structures

Even holding aggregate levels of activity constant, the range of empirically possible sequences of the form described is too enormous to enumerate. However, we can describe the structure of sequences in terms of three distinctive traits: whether activity is clustered (bursts) or distributed (pulses); whether activity accelerates or decelerates; and the intensity of activity within a time period. Arguably, these sequential traits are produced by different generating social processes.

Consider the hypothetical sequences presented in Table 1. Here, all sequences reflect the distribution of six incidents across 21 possible time periods: sequences are artificially constructed to illustrate the different sequential structure of bursts and pulses, acceleration/deceleration, and intensity. We begin with simple bursts: both pattern A and pattern B show short, temporally bounded, bursts of activity. Though the bursts occur in different portions of the sequence, the active portions of the patterns are structurally the same. Imagine that pattern A is observed in data describing deaths due to hunger strikers protesting unfair prison conditions. If there were no change in prison conditions over time, we could conclude that the hunger strike movement was in an decelerating production function, and that the prisoners gave up an unsuccessful strategy. Similarly, we could imagine that pattern B reflects the local occurrence of adolescent suicides after the senior prom. Our account would surely stress the copycat element; we might also notice that there is a limit to the relevant population’s attention span. Sequences like pattern A and pattern B that are characterized by temporally bounded bursts of activity are like an explosion that quickly dies out; like any explosion, they require catalyst events.

Pattern C is structurally very different from either A or B. Instead of a temporally bounded burst of activity, this sequence reflects a regular pulse pattern, such as might result from a pressure-release process. Incidents are followed by a period of quiet during which tension builds again.¹⁶ A similar model is proposed by Durkheim to account for crime in mechanically solidary societies. Of course, a central prerequisite for a pressure release model is that everyone recognize when the pressure has been released: hidden (private) expressions will not do.

Another alternative sequential structure (again with the same aggregate event count) is illustrated by pattern D. Here the intensity of activity accelerates until a limit of some sort is reached, as if the initial event triggers more frequent subsequent events: such a pattern might characterize a feeding frenzy, a spiral into depression, or contributions to a fund drive. We might call it a dynamic attention cycle process with acceleration.

Finally, we might observe a pattern like that shown in E. Rather than a timing or accelerating process, here we observe a *decelerating* process, in which the intensity of events jumps abruptly and then winds down over time. Such a pattern might result from a learning or stabilizing process; if we observed it in lynching sequences, we might imagine the emergence of an uneasy truce between blacks and whites.

Of course each of these illustrative sequences has many variants, but the basic building blocks — bursts and pulses, acceleration/deceleration, and intensity — remain analytically distinct.¹⁷ What is crucial is that differences in the generating processes are reflected in the temporal distribution of events. Applying this insight to the phenomenon of lynching, I propose a new unit of analysis: the *local lynching history*. Local lynching histories hold analytic promise because different social processes are revealed by the temporal structuring of phenomena. Bursts and pulses, for example, are the traces of theoretically different sorts of threats. By focusing our gaze directly on the sequential pattern, abstracted local lynching histories make it possible to identify multiple structures at the level of the county histories themselves, and ultimately to consider the endogenous organizing effects of spatially proximate lynching incidents.

Theorizing from Brundage's Typology

To extend the theoretical potential of the local lynching history, I return now to the typology of lynching proposed by Brundage. Recall that Brundage's typology is not motivated by a clear theory of lynching and its relationship to Southern social relations. Nevertheless, as shown in Figure 4, it is possible to invoke two analytic dimensions that serve to organize his classificatory scheme: the use of ritual and the role of the public and the public sphere in the lynching. These two dimensions uniquely define the space of lynching types, and shed light on the possible

mechanisms by which the threat hypothesis operates at the level of individual lynchings. Further, as we shall see, they can be used to generate hypotheses about the temporal patterning of particular types of lynchings.

Brundage describes private lynchings as generally small and secretive affairs, conducted with little ritual, which “can best be understood as a form of private vengeance” (Brundage 1993:19). These incidents followed directly from specific arguments or altercations, and the perpetrators were more likely than others to be tried in court for their lawlessness. More than the other types of lynchings identified by Brundage, the stories of private lynchings are motivated by *tangible interpersonal* threats. As suggested by Griffin, personal arguments are extremely frequent, and yet the mechanisms that convert an argument to a lynching are likely to be idiosyncratic, and perhaps isolated from the behaviors of others. Temporally, we expect *local contagion* between private lynchings, but little regularity in their pattern.

Although similar in size to private lynching parties, terrorist mobs were composed of persons united by membership in enduring quasi-groups or formal organizations, such as the Ku Klux Klan and various other groups of “night riders” and “white cappers.” Such groups took it upon themselves to run “offending” individuals (a category which rarely extended to those accused of criminal acts) from the community; their scare tactics often ended up as a lynching. Though the identity of members was often familiar to those in the community, the actions of terrorist mobs were shrouded in secrecy. Terrorist lynchings were generally decoupled from known conflicts, and the mobs signed their handiwork in ritualized ways (e.g., by burning a cross). Unlike private lynchings (which stemmed from tangible threats to the perpetrators) terrorists explicitly sought to frighten others; any threat that motivated their own actions was indirect and diffuse. Terrorist lynchings required more social organization than other forms of lynching, so we would expect them to be relatively rare. However, since this form of lynching was explicitly intended to establish or enforce a social hierarchy, it must occur at regular intervals in order to have the desired effect.

In contrast to the smaller mobs associated with both private and terrorist lynchings, posses and mass mobs often involved hundreds of local citizens. Sometimes legally deputized (although more often spontaneously formed), posses set out to capture criminal suspects, often lynching them before the suspect was ever brought into the custody of law enforcement officials. Because posses could claim that they were “carrying out justice, they enjoyed popular blessing” (Brundage 1993:35). Their claims to legitimacy rested on the fact that posses were engaged in an integral part of the informal Southern judicial system; participants in posse lynchings were rarely prosecuted. As in private lynchings, posse lynchings were generally directly tied to an altercation, often involving an alleged crime, and like the victims of private lynchings, victims of posse lynchings were rarely ritually tortured. The public nature and orientation of posse lynchings suggests that they might have occurred with some regularity within local communities; however, the

precision of this pattern would be conditioned by the availability of a catalyst event or altercation.

The final type of lynching identified by Brundage is the mass mob lynching. Mass mobs killed their victims in public, and were legitimized by widespread public participation; these lynchings closely resemble the vast majority of popular accounts. Though sparked by some catalyst event, mass mob lynchings quickly took on a life of their own: the selection of victims was more likely to be arbitrary than in other forms of lynching. Significantly, mass mobs often made a point of thoroughly and publicly dehumanizing the lynch victim by mutilating the corpse beyond recognition. These narrative elements theoretically link mass mob lynchings to the violent — and periodic — public form of social control embedded in Durkheim's discussion of retributive justice in mechanical societies (Durkheim 1933), and suggest that mass mob lynchings would occur at regular intervals.

Conceptualizing Brundage's typology in terms of ritual and public participation ties each lynching back to the underlying social context in which it occurred. Returning to the two narrative accounts discussed at the outset, the lynching of Irvine — who was publicly tortured and then burned alive — is naturally classified as a mass mob lynching by Brundage, while the lynching of S.S. Mincey is a private lynching, resulting from a local interpersonal conflict. Because the underlying threats differed, the expressions of violence differed. We should expect these different expressions of violence to have different consequences, as well as different causes.

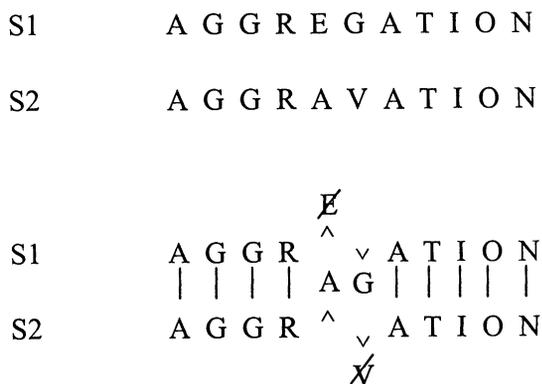
Data and Methods

The goal of this article is to identify and interpret common patterns in the temporal distribution of lynching in counties in the Deep South. The analyses begin with an algorithm that assesses the resemblance between every pair of local lynching histories; a clustering algorithm is then used to partition the pair-wise dissimilarity measures into groups of counties with structurally similar lynching histories. Finally, using detailed data on individual lynchings for Georgia, I evaluate the association between various sequential patterns I identify and the *type* of lynching within counties. Used together, these strategies reveal several robust patterns in the sequential lynching histories of the Deep South, patterns that are largely consistent with theoretical expectations derived from narrative type.

Data

Systematic data on lynching has been collected since the early twentieth century (e.g., NAACP 1919). The data analyzed here are from the most comprehensive inventory of Southern lynching currently available (Beck, Tolnay & Massey 1991).

FIGURE 5: Optimal Matching



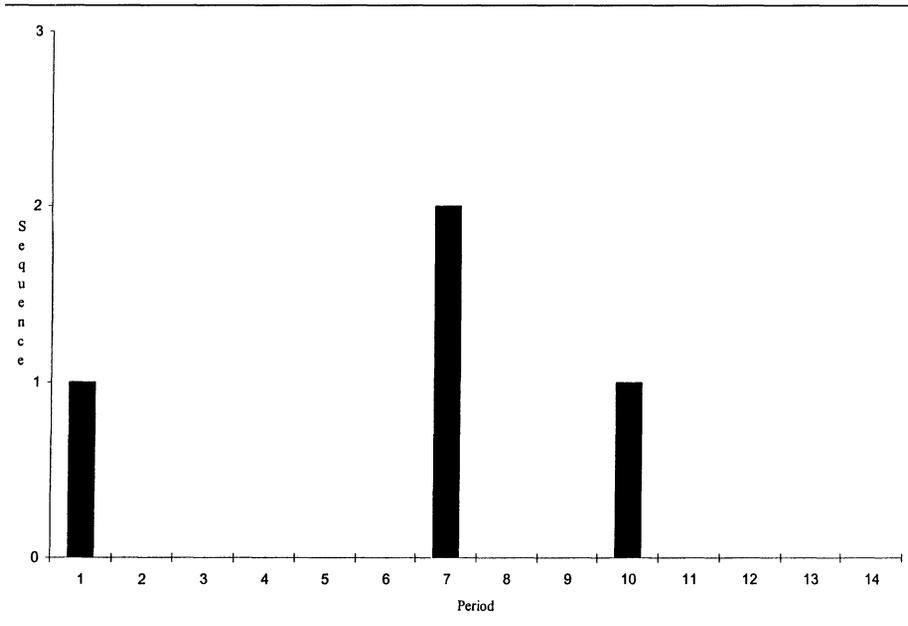
For each of the 395 counties in the Deep South, I coded yearly data capturing white on black lynching incidents that occurred between 1882-1930.¹⁸ Coding lynching incidents at the county level, rather than the state level, is particularly important for these analyses because it retains crucial spatial variation in the distribution of lynching incidents (Tolnay & Beck 1995; Tolnay, Deane & Beck 1996).¹⁹

Optimal Matching

The simple premise behind the sequential analysis strategy I adopt is that it is possible to quantify the “difference” between two strings of sequential data, S1 and S2, by assessing how difficult it is to turn one string into another.²⁰ This is accomplished by manipulating individual sequence elements via a series of elementary operations (typically element insertion, I_i ; element deletion, D_i ; and element-for-element substitution, S_{ij}) until the two data strings are identical. Each of these transforming operations is associated with a penalty, or “cost”; the total cost of a particular alignment solution is the sum of the costs of the necessary element transformations. Optimal matching algorithms identify all possible complete alignment solutions, and return the minimum total cost as the *distance* between the two sequences (Sankoff & Kruskal 1983).²¹

Members of this family of algorithms have been applied in many contexts, from DNA sequencing to identifying dialects to measuring career structures. As a simple illustration, however, we might think of words as sequences of letters. Thus, as shown in Figure 5, we might consider how to turn *aggregation* into *aggravation* by inserting, deleting, and substituting letters for one other. There are multiple alignment possibilities, though we can see that in this instance two simple substitutions elegantly accomplish the task (replacing the *E* and *G* of *aggregation*

FIGURE 6: Image of Discrete Sequence Data
 Sample Sequence: 1 0 0 0 0 2 0 0 1 0 0 0



with the *A* and *V* of *aggravation*). Nonetheless, the algorithm determines the cost associated with each and every candidate alignment (from deleting each element *i* of *S1* and inserting each element *j* of *S2* to substituting every element *i* of *S1* for every element *j* of *S2*, as well as all possible combinations of insertions, deletions, and substitutions that align the two sequences) and defines the distance between the two words as the cost of most efficient set of transformations.

Though algorithms of this type are quite simple, optimizing alignments is a complex problem because the minimum cost depends on the shape of an application-specific cost scheme associated with each operation. Costs can be set in a number of ways. The most basic cost scheme involves simply counting the number of transformations associated with a particular alignment. Applying this cost scheme to the example above this would result in a “distance” of 2, because the minimum number of transformations necessary to align *aggregation* with *aggravation* is two.²² However, there may be contexts in which all transformations are not equally “costly.” For example, some vocalization sounds may be closely related to each other, while other sounds are more distant, or some occupational positions may be more common (and therefore more easily substituted) than others. Building from this insight, a common approach to the cost-setting problem in social science is to order the universe of elements along a linear scale, and generate a matrix of substitution costs by calculating the difference in position between all possible elements. Thus the substitution cost $S_{ij} = |i - j|$ (i.e., the cost

TABLE 2: Assessing Partitions of the Distance Matrix

Panel A: Discrete Lynching Histories					
Partition	Mean Within-Block Distance	Mean Between-Block Distance	t-value	df	Stress
CONCOR	1.71	2.34	-1.60	43	.52
Percent Black	2.13	2.17	-.21	43	1.00

Panel B: Lynching Histories with Decay					
Partition	Mean Within-Block Distance	Mean Between-Block Distance	t-value	df	Stress
CONCOR	3.63	5.43	-3.22*	43	.34
Percent Black	4.57	4.76	-.62	43	.97

* $p < .005$

of substituting element i for element j is the absolute value of the difference between element i and j) (Abbott & Hrycak 1990). In the word example above, a linear-interval scheme might assign each letter to its position in the alphabet (1-26);²³ using this scheme, the total cost of an alignment that substitutes an E for an A and a V for a G would be $(|5-1| + |7-22|) = 19$.

Linear-interval cost schemes are appropriate in many settings,²⁴ but for relatively rare events or for events which vary greatly in their frequency, it is more appropriate to invoke a nonlinear cost scheme. A nonlinear cost scheme does not assume *linear* intervals between pairs of sequence elements; rather, it allows increasing or decreasing marginal costs. For example, if there are credentialling or threshold effects (as in years of education) we might impose a cost scheme that exacts a greater cost when substituting 13 for 12 than when substituting 11 for 10.²⁵ Examination of the overall distribution of lynching suggests that such nonlinearities are appropriate here as well; therefore, substitution costs are set so that the value of the substitution function declines as the sum of $i + j$ increases.²⁶ Substantively, this means that the “marginal cost” of substituting one lynching for zero lynchings is higher than the cost of substituting three lynchings for four lynchings. Expressed mathematically, the actual set of transformation costs used in these analyses is:

TABLE 3: Typical Sequences from Concor Partition of Distances: Local Lynching Histories with Decay

Block	Members	N of Typical Sequence	Description
1	67	0 0 0 0 0 0 1 0 0 0 0 0 0 0	Rare (middle)
2	58	0 1 0 0 0 0 0 0 0 0 0 0 0 0	Rare (early)
3	37	0 0 0 0 0 0 0 0 0 0 1 0 0 0	Rare (late)
4	36	0 0 0 0 0 0 0 0 0 0 0 0 1 0	Rare (late)
5	24	1 0 0 0 0 0 0 0 0 0 1 0 1 0	Short pulse
6	36	0 0 0 0 0 0 0 1 0 0 1 1 0 0	Burst with acceleration
7	43	0 0 0 2 0 2 0 2 0 0 1 0 1 0	Active and precise pulse
8	30	0 1 1 0 1 0 0 0 0 1 0 0 0 0	Burst with deceleration
9	64	0 0 0 0 0 0 0 0 0 0 0 0 0 0	Quiet

$$S_{ij} = \frac{|j-i|}{j+1} \quad \text{if } j \geq i \text{ and } i \neq 0;$$

or

$$S_{ij} = \frac{j}{j+1} \quad \text{if } i = 0;$$

and

$$I_i = D_i = 1 \quad \text{if } i = 0$$

or

$$I_i = D_i = i \quad \text{if } i > 0;$$

where S_{ij} is the cost of substituting i for j ; I_i is the cost of inserting i ; and D_i is the cost of deleting i .

Periodization

Because optimal matching algorithms are designed to compare the *order* of elements in a sequence, they are sensitive to the exact placement of individual elements. When uniform chunks of time (i.e., calendar years) are the primary temporal unit of analysis, the sequential distance between two local lynching histories, each with only one lynching between 1882-1930, is effectively constant, regardless of when the incidents occurred (as long as the two incidents did not occur in the same year).²⁷ In order to allow distances to reflect both the order of lynchings and the general timing, I apply a normalization algorithm to the raw lynching sequences that produces new county-level sequences whose elements describe the number of lynching during a temporal *period*. This algorithm collapses consecutive calendar years into periods that each contain 6% of the total lynchings (across all county-years).²⁸ The resulting data consists of sequences describing the distribution of lynching across 14 time periods per county.

Partitions and Typical Sequences

After the optimal matching algorithm is used to determine the distance between every pair of sequences in the set of data, the resulting matrix of pair-wise distances can be clustered to identify groups of sequences that share similar sequential patterns, thus revealing empirically common patterns across sequences of events. Each coherent cluster containing sequences with similar patterns can then be summarized by a “typical” sequence, thereby reducing the complexity of hundreds of cases into a more manageable — and interpretable — form. When a few typical sequences serve to accurately represent a large number of cases, robust sequential regularity in historical process is revealed, and can be interpreted.

In the analyses that follow, I present results using two methods for clustering the distance matrix. First, I use a block-modeling algorithm (CONCOR) to produce a hierarchical clustering solution that is sensitive to both within-block and between-block pattern of distances (White, Boorman & Breiger 1976). The second method groups counties into clusters by proportion black in the county.²⁹ With both methods of creating clusters, the basic fit of the partition can be assessed by comparing the mean within-cluster to mean between-cluster distance values. Large differences in the mean within-cluster and mean between-cluster distances indicate that clusters contain counties with substantially similar local lynching histories. Within each cluster, identifying the sequence with the lowest mean with-in cluster distance yields a typical sequence for that cluster. Given a typical sequence for each cluster, it is then possible to assess the extent to which the *set* of typical sequences offer an adequate summary of the data by calculating a fit measure for the partition as a whole. The fit measure used here is the stress statistic described in Abbott and Hrycak (1990) and used in Stovel, Savage, and Bearman (1996). As with most stress measures, lower values indicate better summarization. Thus if each county were in its own block, the stress value for the partition would be zero (the set of typical sequences, consisting of all sequences in the data set, would perfectly summarize the data), while if all counties were in a single block, the stress would be 1.000, suggesting far from perfect summarization.³⁰

Results

Using the data, optimal matching algorithms, and cost schemes described above, I generate an initial distance matrix containing dyadic distances between every pair of local lynching histories. I then imposed two partitions on the distance matrix: the first generated by CONCOR and the second based on ordering proportion the counties in terms of proportion black. The results of these analyses are presented in panel A of Table 2. The *t*-values for the mean within- and between-group

TABLE 4: Association between Blocks and Classification of Lynching Narratives in Georgia Counties, 1882-1930

Block Membership from CONCOR Partition of Lynching Histories with Decay Function								
	1	2	3	4	5	6	7	8
	Rare and Middle	Rare and Early Pulse	Rare and Late Burst	Rare and Late Pulse	Short Crisp Pulse	Irregular/Pulse	Active and Precise	Burst Irregular
Narrative Type								
Private	.74	1.06	1.02	.81	.86	1.33 ⁺	1.10	.68-
Posse	.46-	.44-	.84	.50-	.00-	1.24	1.12	2.52 ⁺
Terrorist	1.76 ⁺	2.11 ⁺	.40-	.97	1.02	.89	1.44 ⁺	.00-
Mob	1.17	0.81	1.17	1.28	1.35 ⁺	.68-	.78	1.17

$\chi^2 = 33.35$
df = 21
(n of lynchings = 251 in Georgia)

Note: Noted ratios reflect overrepresentation (+) or underrepresentation (-) of narrative types within Blocks.
p < .05

distances show that *neither* partitioning strategy identifies groups of counties with substantively similar sequential profiles.

The Social Trace of Lynching

At first glance, these results seem unfortunate, but upon further consideration perhaps we shouldn't be too surprised by them. This is because the local lynching histories that generated the underlying distance measures are modeled as discrete sequences (see Figure 6). Discrete event sequence models assign the periods following a lynching incident a sequence value of zero, implying that lynching incidents have no sociological consequence — in terms of subsequent lynching incidents — once the incident has occurred. This assumption ignores both durable forms of social organization and the memories of local actors and witnesses, each of which is an integral component of the social processes that link the past with the future. Sociologically, both organization and memory of the past are critical for the development of repertoires of action (Traugott 1995), and for maintaining the scripts which make ritualized action possible (Buckser 1992). Particular lynchings

always had particular meanings, but stripped from their temporal context they lack *sociological* meaning; that is, meaning abstracted from the specific narrative that gave rise to them.

This obvious insight raises the question of how past events structure the distribution of subsequent events, in time. For example, if the meaningful duration of each lynching incident extends beyond the moment at which the incident itself occurred, the residue of past lynchings will play a role in organizing the temporal structure of subsequent lynching in that location. The question is, will inclusion of this trace crystallize the temporal structure and improve the fit of the sequential models? To test the possibility of a social residue effect, I introduce a proxy for the social trace of lynching into the local lynching history,³¹ and once again calculate the pairwise distances between county lynching histories.

Using a Decay Function to Model the Social Trace of Lynching

Panel B of Table 2 reports the results of optimal matching and cluster analysis of the transformed local lynching histories. Although organizing the modified data by proportion black in the county still fails to identify sequential regularity, the *t*-value comparing the within and across group means for the blockmodel partition is significant at the $p = .005$ level. Thus the central finding is that once the temporal duration of each lynching incident is extended through the decay function, it is possible to partition the counties into groups with remarkably similar local lynching histories. The stress value for this partition, 0.34, is also quite low, which means that the set of sequences composed of those sequences with the lowest mean distance in each cluster offer a relatively good summary of the entire set of local lynching histories (especially when one considers that 395 local lynching histories are being summarized by only nine typical sequences). These results suggest that optimal matching is a useful way of identifying the presence of sequential regularity in the local lynching histories of counties in the Deep South. Perhaps not surprisingly, operationalizing the social remnants of lynching through a decay function is the key to revealing order in these data.³²

Emergent Structure in Lynching Histories

Now I turn to look more closely at the specific temporal structures that emerge when memory is incorporated into the county lynching histories. While the clustering algorithm identifies groups of counties with roughly uniform aggregate lynching counts, the partition reveals the existence of several distinct temporal profiles in the local lynching histories. Table 3 reports the typical sequence associated with each of the 9 blocks in the best-fitting partition of the transformed local lynching histories.

One block (block 9) contains the 64 counties with no lynchings during the entire time period, while four of the blocks (Blocks 1 through 4) are characterized by low total lynching counts. These four blocks are primarily distinguished from one another by the general *timing* of the lynchings: among Block 1 counties lynchings were in the middle years, in Block 2 they were very early; Block 3 counties were relatively peaceful (as far as lynching was concerned) until well into the twentieth century, while Block 4 counties had very late lynchings.³³ Since lynching was so rare in all these counties, it is not particularly meaningful to discuss *sequencing* in the distribution of lynchings within these blocks, though we will return to these blocks when we consider the temporal implications of narrative type.

In contrast, Blocks 5 through 8 contain counties with more total lynching events. While these four blocks exhibit more heterogeneous intrablock patterns, and therefore have higher mean within-block distances, the low stress value for the partition as a whole suggests that the typical patterns are useful summaries of these county sequences. Recalling the basic dimensions that differentiate pattern in sequential data (bursts and pulses, acceleration/deceleration, and intensity) helps clarify the sequential structure of each block.

Though many of the counties in Block 5 had isolated lynching incidents in the early 1880s, as a group these counties are characterized by a short, regular, *pulsing* pattern toward the end of the local lynching history. Intervals between incidents are constant, and intensity (number of lynchings) is stable. In contrast, counties assigned to Block 6 evidence a hybrid pattern, with neither a precise pulse nor an especially active bursting pattern. Intervals between lynchings are irregular, and toward the end of the lynching history, incidents are likely to quickly follow one another. Thus these counties show a slight escalation of lynching activity, in terms of the tempo and intensity of incidents, and there is an increasing tendency for lynchings to cluster together.

The set of counties assigned to Block 7 have the most active local lynching histories, with a number of particularly violent, multilynching episodes early on. However, even with so many incidents, these counties' lynching histories reveal a quite precise, and active, pulse pattern. Incidents occur at highly regular intervals, and though the intensity (in terms of number of incidents) declines in the second half of the era, there is neither acceleration nor deceleration in the pulse pattern over time.

Unlike the constant pulse pattern shown in Block 7, the lynching histories of Block 8 counties slow down markedly as time passes. Almost the mirror image of the hybrid pattern common among members of Block 6, counties in Block 8 begin with a burst of lynching incidents, followed by subsequent incidents which occur at increasingly large intervals of time. In these counties, lynching all but disappears by the early twentieth century.

Macrolevel Structure and Microlevel Process

To accept the sequential representation of lynching data as meaningful, we must be able to interpret the temporal patterns sociologically. To this end, the next goal is to investigate whether counties blocked together in terms of the temporal profile of their local lynching histories also share microlevel narratives. The underlying idea is that particular generating processes (e.g., social control, learning models) will be reflected both in the narrative character of specific lynchings and in the temporal pattern of the local lynching history. Although the basic coding of county level lynching histories ignored the microlevel heterogeneity of individual lynching narratives, I now return to Brundage's classificatory typology in order to recover components of this variation. Within counties in Georgia, I assess the level of association between county block assignment and the type of lynchings prevalent in those counties, using all lynchings for which both Brundage and Beck, Tolnay, and Massey report data.³⁴ As discussed earlier, each type of lynching theoretically suggests a different distributional pattern of lynching over time.

Cell entries in Table 4 report the ratio of observed lynchings to expected lynchings for each block-type combination (omitting the block containing counties with no lynching incidents).³⁵ For each sequential profile, it is therefore possible to determine the relative representation of each type of lynching, controlling for the overall distribution. The significant χ^2 statistic for this table (33.35, $p = .05$ level, $df = 21$) suggests that types of lynchings are not randomly distributed across blocks. Further, six of the eight blocks are dominated by a single type of lynching. Thus it turns out that block assignments, derived solely from the sequential distribution of lynchings as carried by their social traces, match rather well with the underlying distribution of endogenous narrative summaries.

Exploring the relationship between temporal pattern at the local level and particular lynching narratives reveals a crisp substantive finding: at least in Georgia, there is a powerful symmetry between precise pulse patterns and highly ritualized lynchings. Where the temporal distribution of lynching follows regular pulse (Blocks 5 and 7), we observe more mass mob and terrorist lynchings than we expect by chance; conversely, where the local lynching history is marked by bursting and tempo change, private and posse lynchings are more prevalent.

Looking specifically at the pulsing sequences, we see that those counties that experienced a very regular, short, and quick pulse pattern in the later years (Block 5) had an overabundance of *mass mob* lynchings, while counties with intense and active pulses before the turn of the century (Block 7) exhibit a strong tendency toward *terrorist* lynchings. These two blocks, in which lynching occurs at regular intervals, are associated with the two types of lynchings characterized by extensive use of ritual: mass mobs and terrorist lynchings differ primarily in the extent of public participation. As we had expected, the analysis of sequential lynching histories shows that where lynchings rely on the impact of ritual, the temporal pattern is

more likely to follow a highly scripted sequential pattern. Since the ritual marking of bodies — a physical means of asserting the boundaries of a community — is theoretically associated with efforts at social control, *regular* enactment of ritualized lynchings, whether by entire communities or small bands of semi-organized marauders, can be understood in terms of a pressure-release model of social action.

In contrast, where the sequential pattern is characterized by bursts of activity and fluctuating tempos, ritualized forms of lynching are less common. For example, Block 6 counties, which show an acceleration of their lynching histories and a final burst, are dominated by *private* lynchings, the small and highly secretive affairs pursued to effect personal vengeance. These lynchings were tightly coupled to specific catalyst events and were — in the abstract — not sanctioned by the community as a whole. Nonetheless, their sequential pattern suggests that private lynchings were contagious in the short term, and that community norms may have oscillated, making such forms of personal “justice” possible at some moments and not others. Block 8 counties, which exhibit an early burst of lynching, are characterized by *posse* lynchings. Posse lynchings, like private lynchings, were also a direct and unritualized response to specific allegations of wrongdoing; however, as formal justice became more rationalized, the frequency of posse lynchings slowed.³⁶ Thus the two more contingent forms of lynching, in which the use of ritual was less important, produce, in the aggregate, irregular bursting patterns.

Lynching Sequences and Terror

Conceiving of the history of lynching as a coherent entity rather than a constellation of discrete incidents clearly reveals different temporal patterns of lynching at the county level.³⁷ More crucially, however, substantial variation in the timing between incidents is revealed in the optimal matching analyses. Counties with the same number of overall lynching incidents between 1882 and 1930 have substantially different temporal distributions. The key here is that the optimal matching analysis allows for whole sequence comparison (see Abbott 1995). Thus some counties evidence bursts of lynchings, while others experience regular intervals over long sequences. Some groups of counties show escalation of lynching while others show a slowing down over time. Further, these temporal patterns are associated with distinct forms of social organization. When lynchings involving ritual are dominant, the pattern evidences regularity. When the dominant form of lynching is more contingent, the pattern is more irregular. Developing the interpretation offered in Tolnay, Beck, and Deane (1996), this sequential finding suggests that the terroristic function of lynching takes multiple forms. In one form, terror is effective because it is random (Arendt 1951); its unpredictable eruption may cause populations to cower. More regular episodes of violence, ritualized and signed, suggest a more

stable, though oppressive, social arrangement. Interestingly, public participation — or visible state sanctioning — does not seem to fundamentally organize this cleavage in pattern; rather, the ritualized form of the incidents unites the temporally regular patterns.

Discussion

Although social scientists have used optimal matching primarily to study the prevalence of various career patterns, the approach as adapted here demonstrates the utility of sequential analysis for the troublesome class of historical events that are too common for effective case-study and too rare and heterogeneous for effective statistical analysis. In doing so, this article highlights the limitations of using methods of analysis that assume that events are independent when we study historically contingent events like lynchings, and demonstrates the advantages of using appropriate methods — such as optimal matching — for the analysis of rare and interdependent events.

No counties, even those with the strongest propensity to lynch, experienced numerous lynching incidents year after year, or period after period. Yet when counties are grouped in terms of the resemblance of their sequential lynching histories, a finite set of distinctive patterns emerges, each with a distinct temporal profile. The analyses developed here show that fitting models including a proxy for the social trace of lynching incidents crystallizes the structure of local lynching histories in the Deep South. In these models, the lynching histories of some groups of counties are characterized by pulsing subsequences, in which lynching incidents are regularly followed by intervals of relative peace. Other groups of counties show bursting patterns, in which lynching incidents occur in clumps. Grouping counties in terms of sequential similarity reveals an association between a key microlevel indicator of the social and organizational process which generated a lynching and the context in which that lynching took place. Analysis of the relationship between temporal profile and the narrative features of lynching in the state of Georgia helps shed light on why particular sequential patterns unfold with such regularity. In Georgia, those counties that experienced the most carefully scripted lynchings were the same counties with the most precise pulse patterns. This parallel between individual lynching narratives and the county level lynching history offers a glimpse of how the threat hypothesis operates at the microlevel.

The substantive results presented here have relevance for research on group conflict more generally, because they suggest the existence of multiple regularly occurring temporal patterns, rather than a single set of causal factors operating in uniform ways. These diverse temporal patterns, at the local level, are associated with different forms (and arguably, different micro-models) of violence. This insight, inherently sequential in nature and supported by empirical evidence, could be

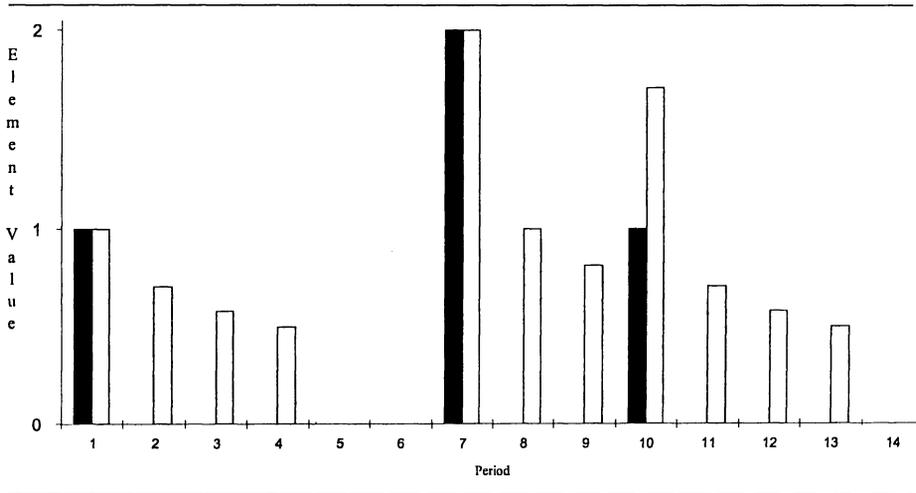
extended to other contexts in which the history of ethnic or racial conflict is long and varied (e.g., the Balkans).

The broader claim is that rethinking phenomena such as lynching in ways that emphasize the local and temporal distributions simultaneously points toward the utility of examining patterns of interdependence among other historical events, especially those events associated with the development of repertoires of action. For historical events with similar distributions (food riots in England, barricade building in France, student riots in Korea, and emerging forms of collective resistance to authority), similar methods may be useful for modeling the linkages between macrolevel change (shifts in political and economic structures) and micro-level decisions and behaviors of actors. Fundamental to such dynamics is our capacity to remember and act on our past. How events are linked through memory, and the effective duration of events, are questions we do not generally ask. The answers may be revealed with pattern recognition algorithms and other similar analytic tools. However, the end cannot be simply to describe the contours of particular patterns; we must theoretically link various patterns to unfolding social relations and social organization on the ground. In this respect, new narrative methodologies can help bridge the gap between description and both causal and interpretive theory.

Notes

1. Accounts summarized from Raper 1933 and Brundage 1993.
2. Many events considered lynchings at the time of their occurrence involved white victims, and occasionally black perpetrators (Tolnay and Beck 1995; Beck, Tolnay and Massey 1989).
3. See Reed 1972 and Tolnay and Beck 1995 for discussions of differences in the prevalence and significance of lynching in the Deep and Border South.
4. If lynching were more prevalent (like car thefts today) we would not find the narrative diversity compelling. If it were less prevalent (like slave revolts) we would seek to understand each event in its specific narrative context.
5. Analytically, the idea that a social revolution is more likely to occur in weak states experiencing a fiscal crisis (a general model of revolution) does not tell us anything about the context of *particular* revolutions, or the process by which revolutionary settings unfold. Since these general conditions are true in the English, French, and Russian revolutions, we can reasonably ask, what do we know about these specific revolutions? Common cause does not necessitate common meaning. On the other hand, it is not clear that the meaning of each revolution lies in the specific event sequences that gave rise to it. Ignoring that these events are historically tied, and that the revolutionaries of later revolutions looked to the past for guidance, it is clearly the case that the meaning of each revolution rests — in part at least — on the existence of a population of social revolutions.

FIGURE A1: Comparison of Discrete and Decayed Sequences
Sample Sequence: 1 0 0 0 2 0 0 1 0 0 0 0



6. It is also probably worth noting that many of the 1200 lynchings did not begin with an argument.

7. The emphasis on generalization is not always associated with statistical models, however. Recent analytic work by rational choice scholars (e.g., Gill 1998; Hechter 2000; Levi 1997) offers an important general alternative to the statistical approach.

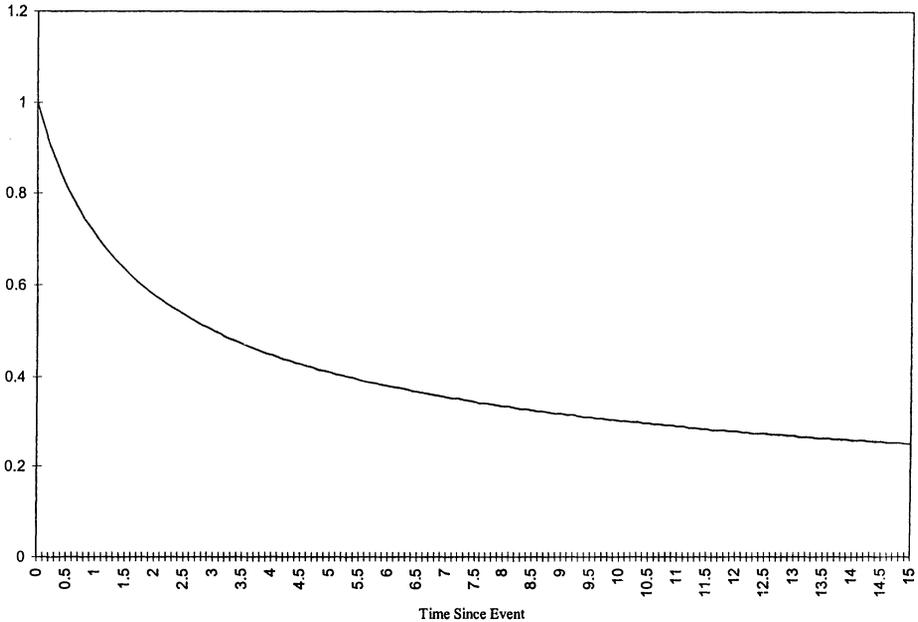
8. Depending on their specification, these models explain between fifteen and thirty percent of the temporal or spatial variation in the frequency of lynching.

9. Some might imagine that one could simply “pool” observations across time and space, to produce a model of county-year lynching. However, severe data problems for common independent variables make this strategy impractical. Nevertheless, see Tolnay, Deane, and Beck (1996), Tolnay and Beck (1995) and Soule (1992) for efforts to incorporate both spatial and temporal variation into statistical models, and Deane, Beck, and Tolnay (1998) for a nice discussion of the importance of incorporating spatial process models into historical sociology.

10. Tolnay, Deane, and Beck’s 1996 paper on the spatial diffusion of lynching through time is a marked exception to this general statement. However, even this sophisticated modeling strategy (which is substantively consistent with some of the findings here) is oriented primarily toward revealing a general causal story rather than explaining the structure of lynching’s distribution or its narrative heterogeneity.

11. Though each lynching was a tragic occurrence at the individual level, it is hard to argue that each of the 1200-plus observed lynchings was uniquely significant in historical terms.

FIGURE A2: Shape of Decay Function



12. In this respect those who study lynching join most contemporary sociologists who are quite willing to equate cause with sociological meaning, particularly when dealing with repeated events.

13. *Sequences* differ markedly from *counts* (or *states*), which measure the overall level of lynching, rather than its temporal pattern or distribution.

14. Further from our sociological home, the biologist E.O. Wilson was asked in a recent interview if he thought animals had emotional lives (Wilson 1996). Wilson quickly admitted that animals often seem to exhibit, through facial expression and body movements, responses similar to the human expression of emotion. Monkeys can seem happy, and dogs and cats do often seem eager to see us when we return home. Yet, he continued, we have no idea how animals *process* these responses. What gives humans an emotional life, he went on, is the capacity to link an emotion with memories of past emotions, and the possibility of futures. The richness, or *meaning*, of our emotional life comes from this capacity to link the present into a sequence of pasts and futures. Simply being happy, Wilson concluded, does not constitute an emotional life. And this is why we must pay attention to sequential pattern if we seek to understand historical phenomenon, for it is through the patterning of past and future events — not simply from the sheer fact that an event occurs — that meaning is revealed.

Moreover, if dogs and cats and monkeys all had memory and cognition of futures, then they would have emotional lives. Since they do not, they have emotional states. It

is a great confusion in both life and sociology to think that states (e.g., counts) tell us something about lives (e.g., meanings).

15. Latent concern with sequence is equally pervasive in many other subdisciplines in sociology, perhaps nowhere more clearly than in life-course oriented research. The central assumption of the life-course perspective is that developmental sequences are among the most critical determinants of subsequent life experiences. The work of Elder (1974), Hareven (1982), Hogan (1981), Clausen (1993) and many others attests to the central role of sequence-based analysis within this perspective. In a similar vein, Rindfuss and his collaborators have explored the extent of disorder in life-course events, and the consequences of disordered and ordered sequences for subsequent status-attainment (1991; Rindfuss, Swicegood & Rosenfeld 1987). We also find implicit attention to sequenced data in models of the role of order effects in social movements and collective action (Granovetter 1978; Kim & Bearman 1997; Marwell & Oliver 1993; McAdam 1986; Minkoff 1997). Research into religious conversion experiences reports a set of similarly strong sequence-based effects (Barker 1984; Lofland & Stark 1965).

16. It is possible that we might find an association between the pulse pattern and a locally oscillating cotton price routine (that is, an exogenous factor responsible for the regular pulse-like patterning of lynching). However, since cotton prices were generally not set locally, this is a relatively implausible interpretation for lynching.

17. An important variant on an accelerating sequence would take the form: 0 1 0 0 0 1 0 0 0 1 0 0 1 0 1. Here, rather than acceleration in *intensity*, the *interval between incidents* shrinks over time. A similarly important variant exists for decelerating sequences.

18. Statistical models that regress the number of black victims have no more explanatory power than models which regress the number of incidents (Tolnay & Beck 1995; Stovel 1993), suggesting that lynching is encoded into history in terms of *incidents* rather than in terms of *victims*. Therefore, lynching incidents with multiple victims are coded as single incidents.

19. Counties are the relevant spatial unit because counties were the most meaningful economic, social, and political unit in the Deep South during the time period I am investigating. In this respect, the South was unlike the North and the West, where social life was more commonly organized around towns and villages. For instance, in the Deep South, essentially all law enforcement took place at the county level, while in the North law enforcement was organized by municipality (Woodward 1971).

20. Levenshtein introduced this approach in the natural sciences in 1965; since then it has been used extensively in biology, most prominently as a method of sequencing DNA strings. In the biological sciences the measure of distance is often referred to as the *Levenshtein* distance; occasionally it is also called an *edit* distance or a *string* distance (Grenander 1996).

21. A good introduction to the technical details of optimal matching routines can be found in Sankoff and Kruskal (1983). Blair-Loy (1999), Bolan (1999), Stovel, Savage, and Bearman (1996), Abbott and Forrest (1986) and Abbott and Hrycak (1990) offer empirical applications in the social sciences.

22. Because of scaling issues, particular distance values are only interpretable relative to other distances produced by the same cost scheme.
23. Letters need not be ordered by position in the alphabet. Since letters are not used with equal frequency in the English language, we might instead assign each letter its Scrabble™ value, and set the substitution costs equal to the difference in point values between each pair of letters.
24. For example, they are perfectly suited to bureaucratic seniority systems, where promotion is based solely on tenure and equal distance between steps is the norm (see Abbott & Hrycak 1990, Stovel, Savage & Bearman 1996).
25. A linear-interval scheme will set the cost of substituting a 1 for a 3 equal to the cost of substituting a 15 for a 17.
26. Similar logic leads to the use of poisson models for count data with many zero values.
27. This is because with the cost scheme imposed, the cost of two zero-for-one substitutions is always less than or equal to any set of insertions and deletions that would align two sequences.
28. The number of calendar years fluctuates across periods, while the number of incidents across all counties is constant within periods.
29. First introduced by Blalock in 1967, proportion black in the county is often used as an indicator of the level of type of threat experienced by minority or majority populations. If counties grouped in terms of proportion black have similar temporal distributions of lynching, we might conclude that the temporal distribution is associated with the demographic structure of the population, or with some other factor correlated with this demographic feature. This is not the case in any of the models tested here.
30. For comparison, I simulated 100 random partitions of the data and calculated the stress values associated with each partition. The mean stress value of these random partitions was 0.9917 with a standard deviation of 0.0157.
31. I accomplish this by stretching the temporal duration of each lynching incident by applying a decay function to the local lynching histories. The effect of this transformation on a local lynching history can be seen in Figure A1; the sequential value of the original incident is preserved, while successive elements in the sequence include a diminishing trace of the incident. Incidents that occur during the trace of a previous lynching are added to the new sequential values. The mathematical form of this function is:

$$V_j = l_i + \sqrt{\frac{l_j}{j-i}}$$

where V_j is the new number of lynchings in period j , l_i is the raw number of lynchings in the index period i , l_j is the raw number of lynchings in period j , and $j - i$ is the number of periods that have elapsed since the index lynching (max $j - i = 3$). The shape of this function is shown in Figure A2. Separate analyses using various decay functions drawn from a class of declining functions produced similar results; extending the duration of

the decay beyond three additional periods led to lower stress values. The decay function described here is the simplest model of duration effects that yields crisp pattern in the sequential data.

32. Because different periods represent different numbers of years, the decay function is not associated with a fixed duration in calendar years. Lynching time, not calendar time, is relevant in this context. Yet these analyses show that within counties, sequential structure of lynchings in the Deep South comes into great relief when the effects of lynchings persist over the length of time it takes for about one-quarter of all white-on-black lynchings to occur.

33. While the difference between Block 2 and Block 3 is relatively easy to see, the difference between Blocks 3 and 4 is more subtle. One advantage of using CONCOR as the grouping algorithm is that it is designed to reveal the boundaries in the underlying distance structure, thereby identifying the difference between ten quiet periods and twelve as salient in these data.

34. Brundage's inventory for the state of Georgia during the period 1882-1930 contains a total of 354 white on black lynching incidents; he is unable to determine the type of 54 of these. Of the 332 lynchings identified by Beck, Tolnay, and Massey in Georgia during this period, Brundage identifies and provides a lynching type for only 251.

35. Expected cell values are calculated by multiplying the relevant row and column marginals and dividing by the grand total. Reported cell ratios are the expected value divided by the observed value.

36. The impact of more rationalized forms of justice, as well as the increasing integration of the South in the post WWI period, may also explain the general decline in terrorist lynchings over time. Terrorist lynchings dominate Blocks 1 and 2 (blocks with early lynchings) and are underrepresented in block 3 (late lynchings).

37. Multiple empirical experiences may also lurk behind more standard statistical models, though the different stories are explained away by differing levels of the explanatory variables (Sørensen 1998).

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