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# Narrative Social Structure I: Anatomy of the *Hadith* Transmission Network of Prophet Muhammad (610-1505 AD)\*

Recep Senturk  
Columbia University, New York

## Abstract

Unlike the present age where recording and printing devices are taken for granted, disciples of grand masters, such as Buddha, Moses, Jesus, Socrates and Muhammad, had to spend an enormous effort to preserve the teachings of their masters in the form of oral and/or written narrative in order to relay it to the future generations. These efforts usually resulted in the creation of transmission networks for the dissemination of narrative, referred collectively by this paper as narrative social structure. This paper focuses on one such narrative structure, the *hadith* transmission network of Prophet Muhammad (571-632 AD). *Hadith*, which literally means narrative about Prophet Muhammad, had been widely transmitted orally and/or in writing, and remained as the only currency circulated in the transmission network. From the demise of the Prophet onward, a social structure and a critical approach developed around *hadith* narration, which transformed it from a conventional narrative into a "science" with formal rules and terminology. The political, religious, and legal importance of *hadith* in social life reinforced this process. The size of the network grew as Islam spread to other nations, but it also changed with the way *hadith* became transmitted. In particular, the network began to shrink as written narrative gradually triumphed over the oral narrative, following the fate of traditional oral narratives in other parts of the world. The old tension between memorizing and writing *hadith* was resolved in favor of the latter, parallel to the spreading institutionalization of education which canonized certain reliable *hadith* collections. The data is derived from classical sources mainly from Dhahabi (d. 1347 AD) and Suyuti (d. 1505 AD). The analysis of the transmission structure as a narrative social structure reveals the interplay between narrative and social structure as well as other interesting diffusion patterns in a time-stratified network.

Key words: narrative, narrative social structure, *hadith*, Muhammad, Islam, diffusion, time, memory, writing, teacher-student relation, science, innovation, transmission

Scholes and Kellogg, in their book *The Nature of Narrative*, contend that for a narrative to exist there must be two requisites, a story and a story-teller (1968: 4, 240). Valid, as it may, from their perspective, this approach ignores the narrative social structure in which the story and the story-teller are embedded. In this study, I want to further substantiate this argument using the example of the *Hadith* transmission network of Prophet Muhammad (571-632 AD), which will be referred to as *Hadith-Net*. *Hadith-Net* demonstrates a powerful way of doing narrative in a civilization which was different in many aspects from our modern civilization. *Hadith* literally means narrative. From a sociological perspective, it is a narrative tradition that became a "science" owing to the social structure and the critical approach developed around it in the first century of Islam. The critical approach to the narrative was motivated by social, political, religious and legal implications of *hadith*. The size of the network grew as Islamic

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\* Direct correspondence to Recep Senturk, Department of Sociology, 413 Fayerweather Hall, Columbia University, New York, NY 10027. Email: ras13@columbia.edu. My thanks to Professors Harrison White and Richard Bulliet for reading an earlier manuscript of this paper and providing helpful comments.

population and geography expanded. Yet it also began to shrink as written narrative gradually triumphed over the oral transmission, following the similar fate of traditional narratives in other parts of the world (Scholes and Kellogg 1966:28, 62, 66, 217-218, 231). The old tension between memorizing and writing *hadith* was resolved in favor of the latter. The spreading institutionalization of education which canonized certain reliable *hadith* collections further exacerbated this process.

Unlike the present age where recording and printing devices are taken for granted, disciples of grand masters, such as Buddha, Moses, Jesus, Socrates and Muhammad, had to spent an enormous effort to preserve the teachings of their masters in the form of oral and/or written narrative, and relay it to the following generations. These attempts usually resulted in the creation of transmission networks for the dissemination of narrative, which I call narrative social structure. The narrative social structures revolved around controlling the transmission and preserving its authenticity. In the modern world, emergence of similar social structures can be observed in the diffusion of new ideas, narratives, and scientific discoveries. Once a social structure is established around a new narrative, the interplay between the two, narrative and structure, shape future developments in the narrative and structure. Authentic narrative becomes a currency among members of the network who develop new identities and roles in an effort to control the process of dissemination. Innovation is sought in these networks, ironically, to develop ways to preserve tradition better. Yet the outcome is never perfect. Thus, for the later generations, ambiguity rules as far as the question of the authenticity of the narrative and the reliability of transmission is concerned. Analysis of the social structure developed around the narrative of the Prophet Muhammad allows us to investigate the interplay between narrative and social structure and the ensuing developments in a historical context.

Fifteen centuries ago, a narrative network was initiated to spread the teachings of the Prophet Muhammad, involving countless actors throughout history and across the world. His message was passed down from one generation to another through an organized network of teachers and students, from the first declaration of the Prophethood in 610 AD, Mecca, until modern times. This paper aims to analyze the structure of time-dimensional narrative networks in which knowledge flows "downward" from earlier generations to younger generations, "upward" from younger generations to earlier generations, and "horizontally" within the same generation of scholars. Teacher-student relationship provides the channel for the attemptedly formally regulated streaming of knowledge and narrative. The patterns in the flow of information change based on the changing patterns in the social prominence of teachers and students.

Despite its size, durability, and social, political and religious implications, this enormous teacher-student network, and the rich literature about it, which have the potential of drastically

changing our notions about the history and the methods of network analysis, remain completely neglected by sociologists of science, sociologists of religion and network scholars. Although historians and Islamicists, who applied a formal and quantitative approach, their approach did not incorporate the notion of social structure (Bulliet, Schacht, Junybol, Abbott, Azami). Building in part on their work, I will apply social network theory (White, Burt) and methods, especially those methods used in the analysis of diffusion networks (Abrahamson, Burt), co-citation (Burt), teacher-student networks (Zuckerman).

The intricate structure and enormous size of the Hadith-Net presents a daunting challenge for exploration and analysis. With the purpose of understanding why it emerged and how it worked, I will touch upon a few general questions of historical record and sociological significance. How can we reconstruct and reconceptualize *hadith* transmission network in sociological terms? What are the ways in which social and cultural conditions of early Islamic history fostered the creation and perpetuation of Hadith-Net? How did the shape of Hadith-Net structure change as narrative flew across lands and layers? How did the prevalence of written narrative as opposed to oral narrative affect Hadith-Net? Let us turn to the first question pertaining to the reconstruction of Hadith-Net in sociological terms.

### **Reconstructing *Hadith* Transmission Network**

My objective in this study is to introduce for the first time Hadith-Net to the social science community, and to analyze it from a structural perspective as a narrative social structure. To this end, I need to reconceptualize and reconstruct Hadith-Net from a sociological perspective, which had been traditionally known as the *Isnad* structure. *Isnād* literally means backing, support, ascription, documentary proof, or records. In Islamic terminology it denotes ascription of an Islamic tradition, or the (uninterrupted) chain of authorities on which a tradition is based (Gibb 72-87). I prefer to call this phenomenon "Hadith-Net" in order to distinguish my approach, which is inspired by social structural theory, from the classical approach. I reconstruct *Isnad* data as a matrix that can be analyzed as a network which serves as a well-documented example of a time-stratified network in which actors are organized in layers based on the time period they lived. The stratification is not only a matter of classification but also a matter of status in the network; the closer an actor to the Prophet the more prestige he has.

Two types of historical literature can be used for this purpose, biographical dictionaries about transmitters and classical *hadith* collections. More specifically I base my analysis on the data taken from books about layers of transmitters by distinguished authorities such as al-Dhahabi's (d. 1347 AD) *Dictionary of Elite Transmitters* which records 21 layers of transmitters with 1176 transmitters, al-Suyuti's (d. 1505 AD) *Layers of Elite Transmitters* which records 24 layers with 1188 transmitters, and al-Bukhari's *hadith* collection, *The Reliable*

*Hadith Collection of Bukhari.* In Bukhari's collection, there are 7275 chains and around 4000 texts with a total number of 1525 transmitters (Ayni, Kalabazi).

Biographical dictionaries about hadith transmitters, the primary source to reconstruct the network of transmitters, provide biographical information about each figure which includes the name of the person, father and grandfathers, birth date and place, death date and place, teachers, students, travels, scholarly works, and the comments of other authorities about him or her. Let me illustrate with a brief example of a transmitter from the fifth layer about whose name was Bakr (102-174 AH) (AH, here, stands for "after *hijrah*," the beginning of Islamic calendar).

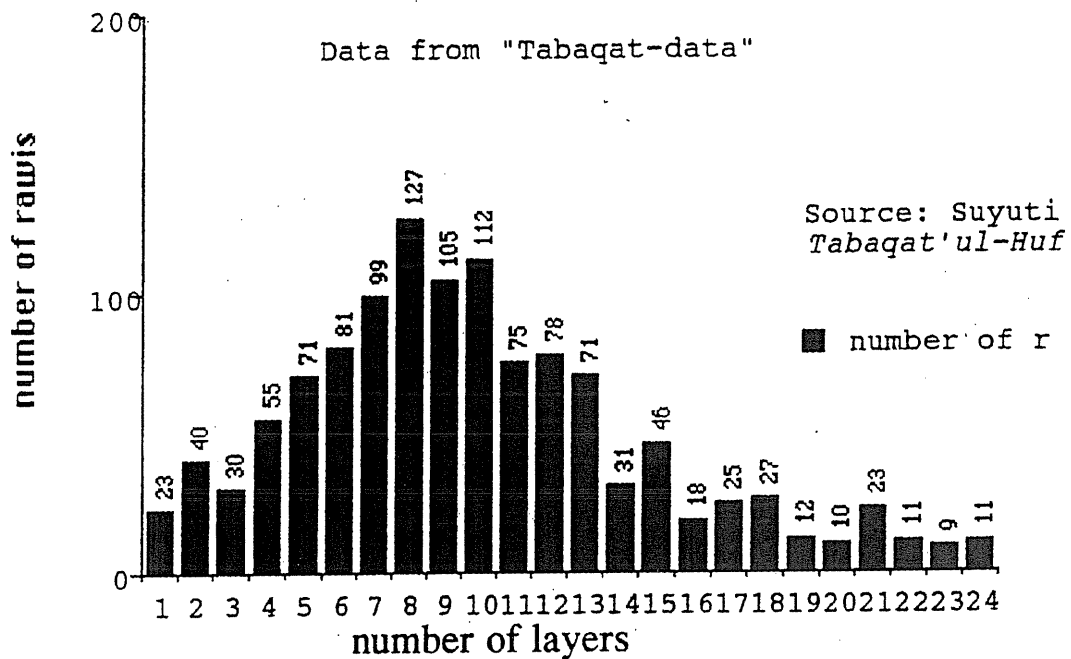
215. Bakr son of Mudharr son of Muhammad son of Hakim son of Sulaiman the father of Muhammad the Egyptian. He narrated from Muhammad son of Ajlan, and Yazid son of the father of Habib. From him narrated son of Wahb, Qutaiba, and al-Walid son of Muslim. He was reliable, honest and pious. Born in 102 and died in 174 on the day of *arafa*, a day before the festival of *eid* (Suyuti 108).

In his famous *hadith* collection Bukhari reports chains of transmission (*sanad*) before he relates a text (*matn*). Bukhari data are organized as chains for each hadith. Adding all the chains in the collection together, we can construct Bukhari's network. This will give us an opportunity to see how the relations described in the historical data that are contained in the biographical dictionaries actually worked. Allow me illustrate the structure of an *hadith* with an example

Al-Humaidi Abd Allah ibn az-Zubair related to us [i.e. Bukhari], saying: Sufyan related to us, saying: Yahya ibn Sa'id al-Ansari related to us, saying: Muhammad ibn Ibrahim at-Tamimi told me that he heard 'Alqamah ibn Waqqas al-Laithi say: I heard 'Umar ibn al-Khattab say on the pulpit: I heard the Apostle of God say: "Behold, the actions are but [judged] according to the intentions; and, behold, unto every man is due but what he intended. Thence, whoso migrateth for the sake of this world or to wed a woman, his migration is [accounted] for that unto which he migrated" (Asad 1981:3-4).

As to the reliability of the data, we can contrast the results from the biographical dictionaries organized as layers with data derived from *hadith* collections. Thus, the differences between biographical data and the data derived from *hadith* collections are important for our purposes. In the biographical literature, the existence of ties between authorities is recorded, without showing, however, the source and the extent of these ties, and how many, and which, *hadith* were transmitted through these ties. To collect this information, we should, look at *hadith* collections where the chain of transmission for each *hadith* is reported. In addition, a data set constructed based on a hadith collection allows us to observe the strength of ties by looking at how many times two narrators constituted a *dyad* in the chains of transmission recorded in the hadith collection under consideration. The drawback of data constructed from a particular *hadith* collection is that it illustrates only a particular authority's network, as opposed to a biographical dictionary where the interest of

the author is to give a full picture of the network. For our purposes, we can use both types of data depending on the interest we are pursuing.



Time scale: 610 AD ----- 1505 AD  
Hijra dates: -- 0 ----- 911 AH

LAYER 1: "COMPANIONS" (ASHAB) THOSE WHO MET THE PROPHET  
LAYER 2-4: "SUCCESSORS" (TABIUN) THOSE WHO MET THE COMPANIONS OF THE PROPHET  
LAYER 5-7: "SUCCESSORS OF SUCCESSORS" (TABA-I TABIUN) THOSE WHO MET THE SUCCESSORS

Figure 1: Hadith-Net: 24 Layers of Elite Hadith Transmitter based on Suyuti's *Tabaqat*

### Rise of a Narrative Social Structure: Creation of Hadith-Net

The historical roots of Hadith-Net can be traced back to the pre-Islamic culture of Arabia. The "bookless" culture of the pre-Islamic Arabia required illiterate Arabs to make use of their memory extensively in their cultural and daily affairs. Memorizing poems and genealogies of tribes, families and famous figures was an integral part of this culture, especially for the cultivated few. With the advent of Islam, memorization found a new area of application; Arabs began memorizing the Qur'an and the words of Prophet. Later, after the demise of the Prophet when knowing the ties among *hadith* narrators became important, they started memorizing the connections between transmitters, which was formally very similar to the tribal or familial genealogies. Memorization, along with writing, played an extensive role in Hadith-Net (Eickemann). Writing accompanied memorization from the beginning onward, continually increasing its significance. Memorization of the Qur'an and *hadith* is considered in

Islam a type of worship. In the first layer, only few mastered writing and were allowed to write *hadith*. Others relied on their memory. Memorization was valued higher than writing in this culture; even the Prophet himself was illiterate. The number of *hadith* memorized by transmitters is correlated with the level of their knowledge.

There is no clear beginning in the creation of Hadith-Net and the sciences of *hadith* which evolved, according to various historical accounts, during the first two centuries of Islamic history. Hadith-Net was rooted in the attempts of the Muslims to preserve the integrity of the teachings of the Prophet Muhammad, which they soon realized, depended on a reliable transmission network. Forgery, motivated by sectarian or political interests or simply by mythical and fictional impulse, was against the interests of the Companions of the Prophet, of the new converts, and of the state. Companions of the Prophet were entrusted by the Prophet to protect his legacy from forgery. It was also the interest of the new converts to learn the authentic teachings of the Prophet. Furthermore, it was the interest of the state to protect one of the principle basis from which Islamic law was derived. These efforts eventually led to the transformation of narrative form an art into a "science" which resulted in the establishment of the so-called "sciences of *hadith*", with its numerous branches, alongside with the emergence of the transmission network of *hadith* that could survive for 15 centuries until today. Despite all these efforts for control, forgery continued, leaving devout followers of the Prophet Muhammad with an obligation to painstakingly search for his authentic narratives.

Accumulation of subsequent inventions here and there by various actors contributed to the evolution of a narrative social structure. Muslims innovated a special unit of exchange, *hadith*, a special type of social relation, *riwaya* meaning exchange of *hadith*, a special identity, *muhaddith* meaning experts in *hadith*, a special network, *Isnad* meaning tracing the knowledge to its source or simply "support", as well as special criteria to distinguish various types of transmission chains. To insure proper operation of the network, they also innovated formal rules regulating the whole process. *usul al-hadith* meaning principles of the methodology of *hadith*. These rules determined the inclusion in and exclusion from the Hadith-Net, the scholarly activity of the transmitters, the moral standards of their behavior, relationship (as teacher-student) with each other, as well as the authenticity of *hadith* in circulation. Developing over centuries, and expanding gradually around the world from Spain to China with the spread of Islam, the transmission network involved countless scholars from countless nations as students, teachers, and interested public.

### **How did Hadith-Net work?**

Hadith-Net is a network of teachers and students who were conscious about their network, especially the future consequences of investing on some ties and avoiding some others

on their career. It could be seen as a structure for organized narrative (Asad 1981: i). The network is organized in a way that it helps capture the possibility of forgery or mistake in the process of narration. The purported purpose of transmitters had always been to protect the narrative from being damaged while it was passed down to subsequent generations. Most of the structural properties of Hadith-Net developed primarily as a result of the attempts to protect the integrity of *hadith* from mistakes and forgery. Each structural property responds to a particular problem that was faced by the Transmitters. Among them are organization of the network, concept of time, role of memory, pattern of prominence, rules of inclusion/exclusion, typology and critique of chains, validity of knowledge in law and theology.

Hadith-Net is organized in subsequent "layers" of scholars who are connected to each other through exchange of *hadith*. The first layer is composed of the "Companions" (*Ashab*) of the Prophet Muhammad, who took knowledge directly from him<sup>1</sup>, comparable to the disciples of Jesus. The second layer is composed of the "Successors" (*Tabi'un*) who took knowledge from the Companions. The third layer is comprised of the "Successors of Successors" (*Atba'i Tabiun*) who took knowledge from the Successors (See figure 1). Consequently, in a given time only a certain number of coexisting layers could exchange knowledge. Since the molecule of the structure is always a *dyad* in Hadith-Net, an actor's claim to have met another actor, then, could be tested by looking at their layers whether it allows for such an exchange. Also, since earlier layers enjoy more prestige due to the closeness to the Prophet, time is thus considered a criterion for social stratification of actors in the network. The time concept operational in the network is unique; the measure is the existence of the *hadith* tie between figures but not their coexistence in a particular period.

The chain of an *hadith* is critically examined by Muslims before it is accepted, and a *hadith* that fails in these formal tests is rejected. For this purpose, various typologies of the chain were developed based on different criteria concerning its reliability. These typologies are an important part of Islamic legal culture because the *hadith* is the second source of Islamic law

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<sup>1</sup> Because of their importance, a closer look at the First Layer of the *hadith* transmitters, Companions of the Prophet, would be useful. Not all the companions related *hadith*. According to Ibn Jawzi, the number of the Companions who related *hadith* was 1060, among whom 500 related 1 *hadith*, 130 related 2, 80 related 3, 52 related 4, 32 related 5, 26 related 6, 27 related 7, 18 related 8, 11 related 9, 60 related 10-20, the rest related 20 or more *hadith*. Only 7 of the Companions related more than 1000 *hadith*. The following is a list of Companions who occupied an important place in the narration of the Hadith from the Prophet. The number after the name indicates the number of the Hadith related by this Companion: Abu Bakr (the first Caliph) 142; Jabir b. Samura 146; Uthman (the third Caliph) 146; Muadh b. Jabal 157; Muawiya (the first Umayyad Caliph) 163; Ubayy b. Ka'b 164; Burayda b. al-Hashib 167; Abu Qatada 170; Abu Darda 179; Imran b. Hasin 180; Ubada b. Samit 181; Sahl b. Sa'd 188; Ma'd b. Yaman 225; Abu Umama al-Bahili 250; Sa'd b. Abi Waqqas 271; Abu Dhar al-Ghifari 281; al-Bara al-Azib 305; Abu Musa al-Ashari 360; Umm Salama (wife of the Prophet) 378; Ali (the fourth Caliph) 536 Umar (the second Caliph) 537; Abdullah b. Amr b. As 700; Abdullah b. Mas'ud 848; Abu Said al-Khudri 1170; Jabir b. Abdullah 1540; Abdullah b. Abbas 1660; Aisha (wife of the Prophet) 2210; Anas b. Malik 2286; Abdullah b. Umar 2630; Abu Hurayra 5374.



(*shari'a*), after the Qur'an. Two branches of Islamic knowledge (*usul-i hadith*, which is the methodology of *hadith*, and *usul-i fiqh* which is the methodology of Islamic jurisprudence) provide ample information in this regard (Siddiqi, Kamali, Schacht).

The *hadith* material is categorized according to the type of the chain through which it is transmitted. It may be possible for us to identify five assumptions, which can be seen as the governing rules of Hadith-Net. These assumptions underlie typologies of chain, *hadith* and transmitter, which eventually determine the validity of an *hadith* in Islamic law and theology.

- (1) The lesser the number of ties in a chain the better the chain is.  
(Criteria: number of ties).
- (2) The more chains a *hadith* has the better the *hadith* is.  
(Criteria: number of chains for an *hadith*).
- (3) The more continuous the ties in a chain the better the chain is.  
(Criteria: continuity of chain).
- (4) The more prominent the figures in a chain the better the chain is.  
(Criteria: actor prominence).
- (5) The more adequate the methods of narration the better the chain is.  
(Criteria: type of narration).

These assumptions combined give us a measure for the reliability of *hadith* as well as prominence of the Transmitter. In plain words, the prominence of a transmitter and the reliability of *hadith* depend on the (1) distance to the Prophet, (2) number of ties reaching to the Prophet, (3) continuity of the chain between the Transmitter and the Prophet, (4) prominence of the transmitters in the chain, (5) adequacy of a student's relationship to his teachers. These rules that underlie the attempts to control the relations in the Hadith-Net utilized a particular vocabulary which evolved along with the narrative social structure. Such developments characterized the cultural and social scene which transformed the art of *hadith* narration into a "science," *ilm*.

### **Triumph of writing over memorization**

The size of the narrative social structure developed around *hadith* changed over time based on the interplay between changes in narrative and structure, giving it the shape of a bell curve (See figure 1). I have already explained that the expansion of the network was due to the spread of Islam from India to Spain. In this period *hadith* learning had a multiplicity of centers scattered around the Muslim world such as Madina, Mecca, Isphahan, Damascus, Egypt, Central Asia, Yemen, to name but a few. However, after a while this expansion stopped and

although the Muslim lands remained the same, the size of the Hadith-Net began to shrink, which meant fewer and fewer scholars reached the level of *hafiz*, a scholar who could relate approximately a hundred thousand *hadiths* from his memory. This should not mean that the interest in *hadith* decreased. The pressing question then becomes why the size of the Hadith-Net shrunk although there was not a significant change in the population and in the level of scholarly interest in *hadith*. My supposition is that the explanation may lie in the changes in the triumph of written narrative over oral. This was primarily due to the spreading institutionalization of *hadith* education which canonized certain collections as being the most reliable insuring a perception of reliability to the students of *hadith*. These collections, usually referred to as "the Six Most Reliable Collection", included books authored by Malik (d. 179 AH) Bukhari (d. 256 AH), Muslim (d. 261 AH), Tirmizi (d. 273 AH), Nasai (d.303 AH), Ibn Maja (d.273 AH), Abu Dawud (d.275 AH). Most of these late authorities were non-Arabs which illustrates how *hadith* spread across lands and layers (Bulliet, Anees, Berkey).

### Conclusion

The above analysis was intended to contribute to the study of narrative and social structure by illuminating how narrative and social structure intertwine to create a narrative social structure. As an example, I attempted to reconceptualize Hadith-Net of the Prophet Muhammad as a narrative social structure, and undertook a brief anatomical analysis of this structure. My results are only suggestive and far from being final and comprehensive. In doing so, I hope to open a completely new area of research which has thus far been neglected by social scientists, and apply modern network analysis to the *hadith* data. Given that more than 1/5 of the world's population is of the Islamic religion, I believe this project will shed light on a fundamental, yet rather ignored, aspect of one of the major cultures of our world.

My purpose here, however, is not to judge how reliable the *hadith* material available today may be, although my work might shed some light on this question which I leave to the scholars of *hadith*. From our modern perspective, it is but a myth to think that teachings of an ancient master had been preserved exactly as they were uttered. Authorities of *hadith*, however, claim that a significant part of the legacy of the Prophet Muhammad, depending on the criteria they use, had been preserved owing to the old narrative social structure.

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