Conversational Analysis of Turn taking Behavior and Gender Differences in Multimodal Conversation

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Abstract

The conversational analysis and gender difference is a fundamental area of research in sociolinguistics dealing with gendered difference of language, identity, diversity of relations, patterns and practices (Lakoff 1975, 2004, Spender 1980, Freeman & McElhinny 1996, Coats 2004). The present research examined the gender differences with reference to turn taking phenomenon in more detail. The aim of the research is to provide empirical evidence regarding gender difference stereotypes; to what extent these stereotypes and assumptions are accurate. According to Victoria De Francisco (1977; Coats 1998: 120-121) females have more curiosity to take turn in conversation while men stick to their own point, remain silent, and rejected the offer of turn taking. This supports the assumption that women are more talkative then men. However, resent research opposed this assumption that women are more talkative (Mehl, M. R., Vazire, S., Ramírez-Esparza, N., Slatcher, R. B., & Pennebaker, J. W. 2007). Different models have been used in turn-taking including homogenous and heterogeneous conversation, some researchers appreciated these models and few of them criticized these models regarding their methodology. The present study analyzed turn taking in three types of conversational models: male to male conversation, female to female conversation and in cross-sex conversation, and further compared the difference in radio, TV and casual conversational models. Results indicate that women are more likely to take turns in conversation which supports the proposal that women's greater turn taking rates can be attributed to interpersonal sensitivity rather than lack of assertiveness (Leaper, C., & Robnett, R. D. 2011).

Key words: turn taking behaviour, interpersonal sensitivity, assertiveness, stereotypes, conversational models

Introduction

Turn taking refers to the process by which people in conversation decide who will to speak next. Once a topic is chosen and a conversation initiated, the matters of conversational turn taking arise. Knowing when it is acceptable or obligatory to take a turn in conversation is essential to the co-operative department of discourse. Generally, the phenomenon of turn taking is based on different assortments of rules. Sacks, H., Schegloff, E. A., & Jefferson, G. (1974) described how interlocutors construct and allocate turn in a systematic way. Sack et al. elaborated the system of turn taking organization as a model, which is based on turn taking phenomena. The model is centred on the notion of turn constructional units. There are three possibilities involved in the arrangement and organization turn taking system. Firstly, the current speakers may 'self-select' and continue speaking. Secondly, the current speaker may select the next speaker and thirdly, the current speaker may select another speaker instead of selecting the next speaker:

1. The current speaker *A* selects the next speaker *B*, then *B* has the opportunity to speak and avail the turn.
2. If *A* selects another speaker *C* instead of *B* then **C** begins to speak.
3. There is also possibility of third situation that *A* current speaker does not give chance to other speaker to speak and hold the floor of conversation.

According to the Sack et al. (1974) in conversation one party speak at a time. A turn consists of not merely the temporal duration of an utterance but also an obligatory right to speak which is allocated to a particular speaker. In this model no gap and no overlapping occur. This model is context content independent. According Sacks, Schegloff and Jefferson the conversational turns are unpredictable; our utterances, our actions and the order in which we say or do things cannot be determined in advance. In this account, very little of our utterances is predictable. Turn taking has been observed in debates, speeches, conferences, and talk shows, formal and in formal mode of conversation. Specialized form of turn taking is present in formal and high class meetings and conversation in which when one speaker finishes his/her point then other begins. When human being either male or female speaks sub consciously that someone is noticing them, they speak naturally and takes turn or overlap each other in conversation and interrupts one another. Mostly, in conversation turn taking is ubiquitous. Garcia (1991) described several differences between

2

turn taking system of mediation and ordinary conversation. She suggested that the disputing process depends on the speech exchange system of casual conversation and this exchange system can be distinguished on the basis of turn taking system and organization of interactions within the participation frame work. In ordinary conversation turn transition ensues at the end of a unit type i.e. phrase, clause or a sentence. The disputants do not interrupt each other during telling their stories but the mediator can ask questions. The story teller usually choses the "self-selection" option to continue the story. She argued that the disputing techniques require flexible speech exchange system because the disputant needs to place his/her response to the adjacent utterance. In order to produce a disagreement the disputant needs to produce the disagreement adjacent to the utterance to which he/she disagrees otherwise the displaced disagreement may lose its strength or intensity. These kinds of techniques are used in the turn taking system of ordinary conversation which doesn't stop the current speaker from taking turn. She delineated the role of mediation in resolving and minimizing the disputes. She suggested that mediation is a kind of "pre-determined" speech exchange system. Certain types of turns are "pre-allocated" to specific interlocutors on the basis of participation roles. For instance mediators are able or allowed to self-select and take next turn during the hearing but disputants cannot choose the self-selection option during the other disputants' story. Goodwin (1980) analysed procedures used to construct gossip disputes like "he-said-she-said". The procedures employed in constructing the accusation utterances constitute a well-defined syntactic structure along with particular type of events, actions and identities of interlocutors. These procedures not only produce linguistic structures but also "generate social configurations and cultural events". Goodwin pointed out various aspects of the relationship between turn taking and attention. According to Duncan (1972) there are four mechanism of turn taking in which when current speaker end the next speaker start to speak. In un-smooth turn taking, when different people are sitting together, speak simultaneously and break the turn taking rules, it has been observed in casual conversation. The Literature review reveals that Gender differences in turn taking has been observed and analysed many researchers. According to Oreström, B. (1983) female breaks the rule of turn taking because mostly they speak simultaneously. This model is call Jan session model, while men prefer a one at a time model. Coates (2004:137) asserts that men dislike that someone to join or interrupt then unless they have not completed their point. In formal meeting, women followed one at a time model, which shows the high social status of women in conversation. Women are

more inclined to use jam session model in mixed gender conversation while men prefer well time exchange of turns and hence, there are less chances of overlap in male to male talk.In formal events or meetings the order of conversational turns are pre-allocated or partially pre-allocated (Irvine 1979; Atkinson and Drew 1979; Duranti 1981, 1994; Drew and Heritage 1992; Salmani Nodoushan 2003, 2006a,b, 2007a,b, 2008, 2012, 2013, 2014, 2015). However, even in formal cases, in order to avoid long silences and overlapping interlocutors need to know some rules 'when to begin and when to end their talk. If there are more than one speaker then we cannot judge who is speaking like radio we are unable to know the speaker. Some data consists of more substantial terms, in which several utterances can occur or in which the basic adjacent pair is difficult to determine. Bloom, K., Russell, A., & Wassenberg, K. (1987) examined the turn taking affects the quality of infant vocalization. They observed two groups of 20 infants experienced conversational turn taking. The result show that turn taking causes changes in the quality of infant vocal sound. O'Connell, D. C., Kowal, S., & Kaltenbacher, E. (1990) critically analyzed the theories, data interpretation and methods related to turn taking research tradition. They criticized the approaches employed by Sacks, H., Schegloff, E. A., & Jefferson, G. (1974) in "simplest systematics" for excluding conversational content and purpose and being limited to formal approaches inappropriately. They argued that the success of conversation lies not in the smooth exchange of speaking turns but in the accomplishment of purposes entertained by interlocutors. Wilson, M., & Wilson, T. P. (2005) presented an oscillator's model of the turn of taking. During conversation oscillators in the brain of interlocutors becomes mutually active during conversation. Turn taking includes a successive rise and fall in the 'probability of initiating speech' during transitory silence. The oscillator's activation depends on the 'speaker's rate of syllable production'. When human being either male or female speaks sub-consciously that someone is noticing them, they speak naturally and takes turn or overlap each other conversation and interrupts one another. Mostly in conversation turn taking is ubiquitous. The model captures not only the 'cyclic property of silences' but also timing, syllable arrangement and interactive coordination. There is a mechanism of co-ordination, which is based on turn taking, that tells who speak, what and when. The results indicate that overlapping talk and a memorization of silence between conversational turn is present. However, there are some other considerations are involved in making a decision when to speak:

"How soon a self-selecting next speaker moves to take the turn may depend on interactional concerns such as the pragmatic implications of silence, the degree of competitiveness in the tone of conversation, the speaker's confidence in what he or she has to say, and the relative social status of the participants" (Wilson, M., & Wilson, T. P. (2005; pg. 965)

They argued that although the model offers a mechanistic account of coordination timing between conversational partners but it is only the precise timing of the speech onset that is mechanistically governed.

Material and Method

The data was collected from 3 radio programs , *The Mani* Show (3 episodes, 20 minutes each)which is the male to male conversation program, *Jagtee Subha* (3 episodes, 20 minutes each)which is female to female conversational program and *Live @101*(3 episodes, 20 minutes each), which is male to female conversational program. Similarly three TV programs of were taken, *Fashion Today* (3 episodes, 20 minutes each) in which two male designers were conversing about fashion, another TV program was taken in which two females were conversing named, *Mahira Show* (3 episodes, 20 minutes each) and another program named *Hum do Humara Show* (3 episodes, 20 minutes each) which is male to female conversation is taken for analysis. From each program three episodes were analysed. Another set of conversation was taken from QAU university students of linguistics department on the same pattern as taken of radio. Overall, 60 minutes recording from each medium (radio, TV, casual conversation) was collected and analysed. In order to find out which one of the both genders is dominant in the conversation and which one influence more in conversation. Multimedia annotator Elan was used to transcribe and analyse the data.
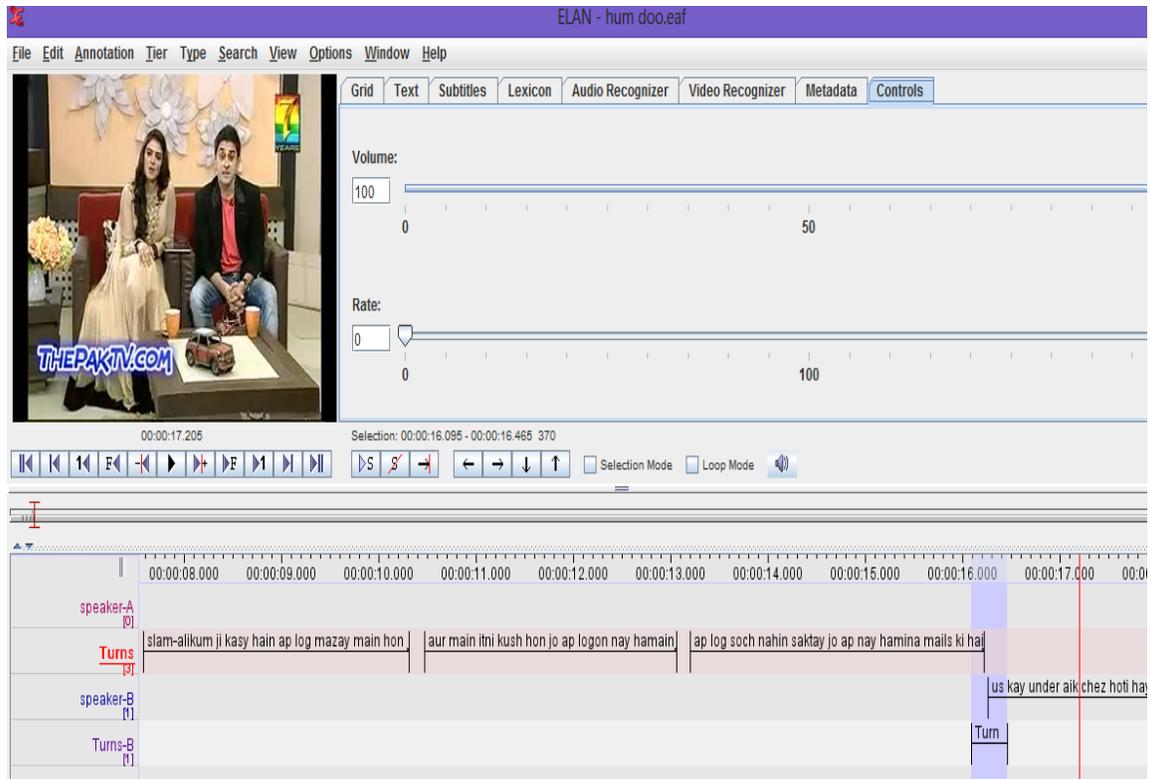
Results and analysis

Table.1 Conversational Turns from Radio

Relative Percentage of Conversational Turns (Radio)					
Episodes	Percentage (MM)		Percentage (FF)		Percentage (MF)	
	M1	M2	F1	F2	M	F
1	52.8	47.2	49.48	50.52	43.18	56.82
2	50.6	49.4	50.50	49.50	44.45	55.55
3	48.75	51.25	50.48	49.51	44.08	55.92
Mean	50.72	49.28	50.2	49.8	43.90	56.10

Table.1 shows the percentage and mean of conversational turns by analysing three episodes of *The Mani* Show (20 minutes each), which is the male to male conversation program. In first episode M1 takes 52.8 % turns while M2 takes 42.7% turns. In second episode M1 takes 50.6% turns while M2 takes 49.4 % turns. While in third episode M1 takes 48.75% turns and M2 takes

51.25% turns. The mean turn taking rate of all three conversational samples shows that there was no statistically significant difference in M1 and M2 turn taking rates (M1= 50.72, M2= 49.28). Conversational samples from three episodes of program *Jagtee Subha* (20 minutes each) were taken and analysed. This is female to female conversational program. It shows that in first episode F1 takes 49.48% turns while F2 takes 50.52% turns. In second episode F1 takes 50.50 % turns while F2 takes 49.50% turns. In third episode F1 takes 50.48% turns and F2 takes 49.51% turns. The mean of all three conversational samples shows no statistically significant difference between F1 and F2 turn taking rates (M= 50.2, M= 49.8). Similarly, three conversational samples from program *Live @101*(3 episodes, 20 minutes each) were recorded and analysed. This is male to female conversational program. In first episode F takes more turns (56.82 %) than M (43.18%) turns. In second episode again F takes more turns (55.55%) turns than M (44.45%) takes. Similarly in third episode F takes more turns (55.92 %) than M (44.08 %). The mean of all three conversational samples show statistically significant in female (F= 56.10) and male (M= 43.90) turn taking rates.

Table.2 Conversational Turns from TV

Relative Percentage of Conversational Turns (TV)					
Episodes	Percentage (MM)		Percentage (FF)		Percentage (MF)
	M1	M2	F1	F2	M	F
1	48.38	51.62	48.78	51.22	37.06	62.94
2	52.77	47.23	50.57	49.43	23.01	76.99
3	51.47	48.53	48.80	51.20	43.82	56.18
Mean	50.87	49.13	49.38	50.62	34.63	65.37

Table.2. shows the relative turn taking rates of male and female interlocutors from conversational sample recordings. Samples were taken from three TV programs. Three samples were taken from *Fashion Today* (3 episodes, 20 minutes each) in which two male designers were talking about fashion. Sample 1 from first episode shows M1 takes 48.38 % turns and M2 takes

51.62 % turns. Second sample from second episode shows that M1 52.77 % takes and M2 takes 47.23 % turns. Third sample from third episode shows that M1 takes 41.47 % turns and M2 takes 48.53 % turns. The mean of all three samples shows no significant statistical difference between M1 turn taking rates (M= 50.87) and M2 turn taking rates (M= 49.13). Similarly, three samples were taken from another TV program named *Mahira Show* (3 episodes, 20 minutes each) in which two female were conversing. First Sample shows F1 takes 48.78 % turns and F2 takes 51.22 % turns. Second sample shows F1 takes 50.57 % and F2 takes 49.53 % turns. Third sample shows F1 takes 48.80 % and F2 takes 51.20 % turns. The mean of all three samples from Mahira show reveal no statistical significant difference in female to female conversational turn taking rates (M= 49.38, M= 50.62). Another program named *Hum do Humara Show* (3 episodes, 20 minutes each) which is male to female conversation is taken for analysis. First sample shows F takes more turns (62.94 %) than M (37.06 % turns). Second sample shows F again takes more turns (76.99 %) than M takes (23.01 % turns). Third sample also shows F takes more turns (56.18 %) than M (takes 43.82 % turns). the Mean results indicate that F takes more turns (Mean= 65.37) than M (Mean= 34.63) in a male to female conversation.

Table.3 Casual Conversational Turns

Relative Percentage of Casual Conversational Turns (CCon)						
Sample	Percentage (MM)		Percentage (FF)		Percentage (MF)	
	M1	M2	F1	F2	M	F
1	48.05	51.95	52.24	47.76	41.06	58.94
2	47.94	52.06	48.44	51.56	33.02	66.98
3	51.85	48.15	47.23	52.77	23.82	76.18
Mean	49.2	50.2	49.31	50.69	32.64	67.36

Another set of Natural conversation was taken from QAU university students of linguistics department on the same pattern as taken of radio. Sample 1 shows M1 takes 48.05 % turns and M2 takes 51.95 % turns. Sample 2 shows M1 takes 47.94 % turns and M2 takes 52.06 % turns. Sample three shows M1 takes 51.85 % turns and M2 takes 48.15 % turns. The Mean of all three

samples indicate no significant difference in M1 and M2 turn taking rates (M= 49.2, M= 50.2 respectively). Female to female first conversation sample shows F1 takes 52.24 % turns and F2 takes 47.76 % turns. Second sample shows F1 takes 48.44 % turns and F2 takes 56.98 % turns. Third sample shows F1 takes 47.23 % turns and F2 takes 52.77 % turns. The mean of all three samples indicate no statistical significant difference between F1 and F2 turn taking rates (M = 49.31 and M = 50.69 respectively). Male to female first conversation sample shows F takes more turns (54.94 %) than M (41.06 %). Second sample shows F again takes more turns (66.98 %) than M (33.02 %). Third sample also shows F takes more turns (76.18 %) than M (23.82 %). The overall mean calculation of all three sample indicate significant difference between female and male turn taking rates (Mean =76.36, Mean = 32.64 respectively).
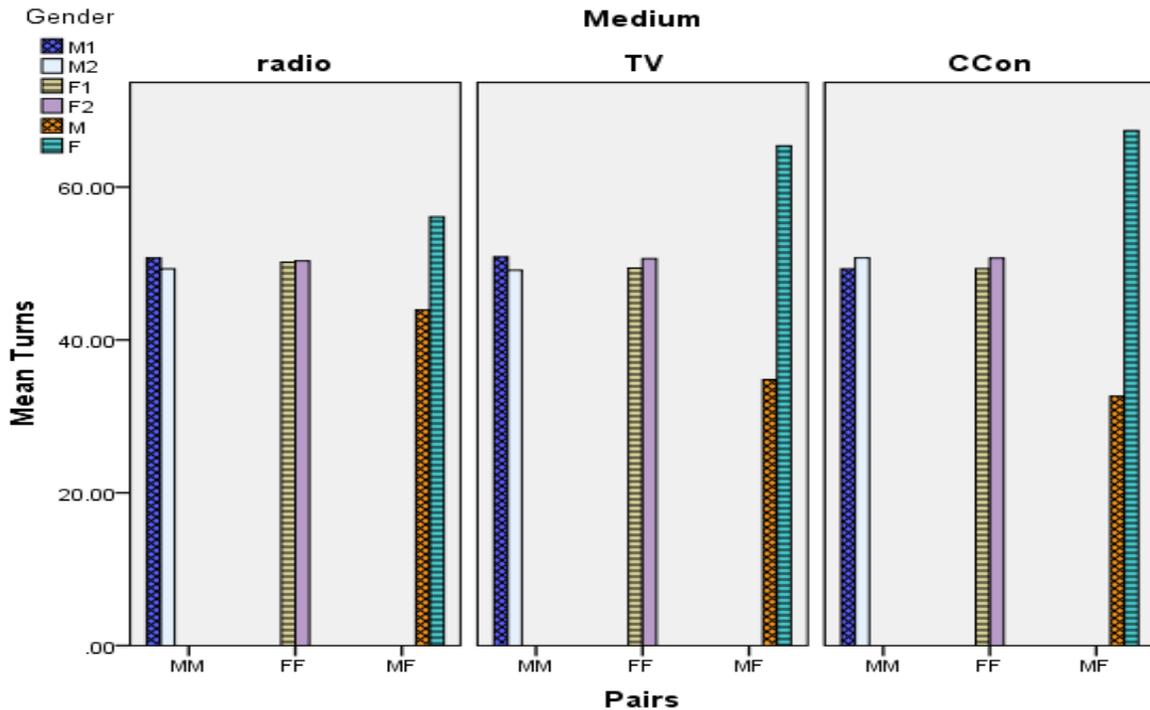

Figure.1. shows mean turn taking rates in three conversational pairs (MM, FF and MF) in three mediums (radio, TV. and casual conversation. Bars represent Male and female gender. While, mean turns are given on vertical axis. The graph shows that there is no difference in male to male and female to female turn taking rates in all three mediums. However, there is statistically significant difference in male to female turn taking rates in all three mediums. Surprisingly, females took more turns than males in all three mediums. Figure.2 further elaborates the overall mean turns and gender difference.
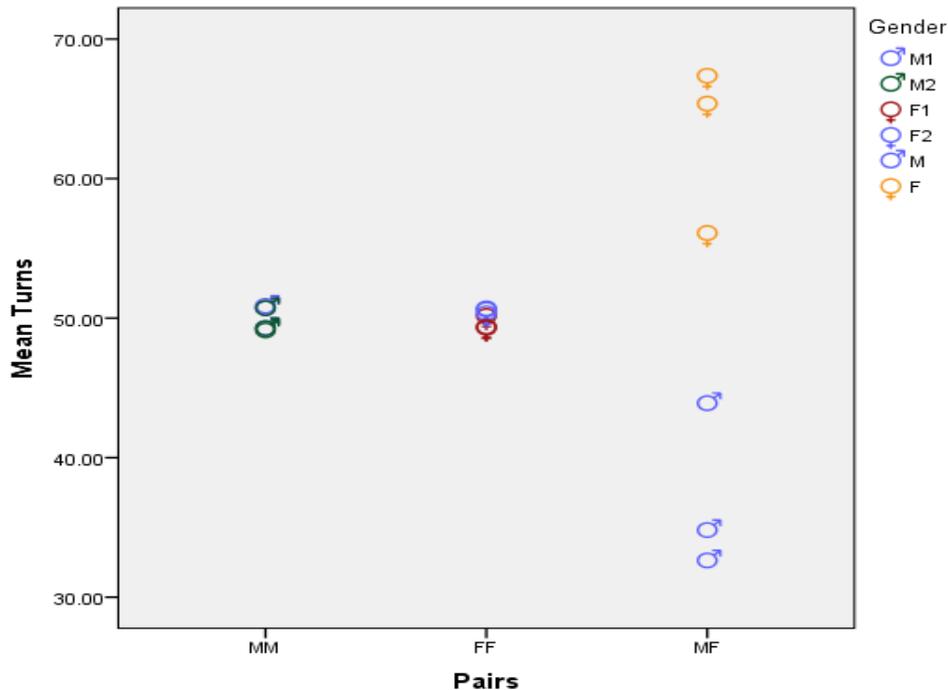
Figure.2 shows the mean conversational turns taken by both genders in all three pairs.

Conclusion

Gender differences in conversation have been the centre of attention for researchers because of the probing issues regarding stereotypes, gender, society and culture.(Thorne, B., & Henley, N. 1975, Pearson, J. C. 1985, Aries, E. 1996, Carli, L. L. 1990, Lefkowitz, E. S., Boone, T. L., Sigman, M., & Au, T. K. F. 2002, Zhou, L., Burgoon, J. K., Zhang, D., & Nunamaker, J. F. 2004 Brandth, B., & Haugen, M. S. 2010). The present research shows that there is no difference in M1 and M2 turn taking rates in male to male conversation. Same is the case with female to female pair; there is no statistically significant difference between F1 and F2 turn taking rates. However, in a male to female conversation females turn taking rates are higher than males. This shows gender difference in mixed sex conversation. The findings are in line with the assertions of Victoria De Francisco (1998). De Francisco, V. (1977; Coats 1998: 120-121) observed turn taking violations and non cooperative speech by analysing the daily conversation of seven couples. Victoria De Francisco found that females have more curiosity to take turn in conversation while men stick to their own point, remain silent, and rejected the offer of turn taking. This supports the assumption that women are more talkative then men. However, resent research opposed this assumption that women are more talkative (Mehl, M. R., Vazire, S.,

10

Ramírez-Esparza, N., Slatcher, R. B., & Pennebaker, J. W. 2007). Results indicate that women are more likely to take turns in conversation which supports the proposal that women's greater turn taking rates can be attributed to interpersonal sensitivity rather than lack of assertiveness (Leaper, C., & Robnett, R. D. 2011). The purpose of research on gender difference is not just to highlight the male female speech differences but it also deals with issues regarding sex discrimination, stereotypes regarding gender identities and sexist attitude regarding both genders (see: Khaghaninezhad, M. S., & Rostami, M. 2014 for more detail on gender representation in discourse).

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