Turn order in multi-party storytelling:  
Do narrators ‘control every third slot, from a first’?  

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Abstract
In this paper we examine turntaking patterns in conversational storytelling. It has long been noted that turntaking in every-day narrative differs on a number of counts from turntaking in regular conversation. The differences, however, have, at best, been researched qualitatively based on casual observations and small datasets. Here, we base our analysis on two specialized corpora of conversational narrative, the SCoSe containing American English 4- and 5-party stories and the NC containing British English 4- to 7-party narratives. The analysis is decidedly quantitative and statistical in orientation. Specifically, we are concerned with turn order in conversational multi-party narrative aiming to examine the validity of Sacks’ description of storytelling as “an attempt to control a third slot in talk, from a first” (Sacks 1992: 18), a turn order pattern referred to as the N-notN-N pattern. We also investigate whether what we call ‘turntakersim’ (i.e., individual speakers’ rate of taking the turn in non-narrative conversation) has an impact on turn distribution (a measure intimately related to turn order). Further, given the structural differences in the data at hand (the SCoSE being raw-text, NC being densely annotated) we employ largely different methodologies particularly in addressing our main question, which is related to turn order. The results on turntakersim suggest that this factor cannot on its own account for the noticeable increase in the narrator’s turn share as soon as the conversational activity moves into storytelling. The results on turn order reveal the N-notN-N pattern’s statistical overrepresentation in all multi-party narrative types examined. The implications of this finding are far-reaching. First, Sacks et al.’s dictum that turn order is not fixed in advance does not hold true for conversational narrative. Also, turn order in conversational narrative is not locally controlled, on a turn-by-turn basis, but globally, on the basis of the activity the conversationalists are involved in, viz. storytelling.

Second, a fundamental correlate of the N-notN-N pattern is the avoidance of double-responses, that is, of two consecutive response turns following the narrator’s turn. This avoidance suggests that the turn order system underlying multi-party narrative is that of 2-party talk. Further, the double-response avoidance suggests the possibility that the source of the turn-order bias in narrative is a tacit agreement between the recipients to promote the single-recipient filling the single-response slot to a ‘spokesperson’ taking the turn on behalf of all other recipients. We also note the possibility of there being a recipient subsystem for turntaking at the single-response slot interacting with the narrator-recipient turntaking organization but still, to an extent, working on its own terms.

1. Introduction
Storytelling can be considered a fundamental mode of everyday linguistic interaction, both in terms of its social significance as the genre in which identities are formed and moral frameworks are propagated (e.g., Blum-Kulka 1993, Schiffrin 1996, Bamberg 2004) and in terms of its claimed ubiquitousness in conversation (e.g., Labov 1997, Ochs & Capps 2001, Norrick forthcoming). It has been extensively researched in discourse analysis, where it is “one of the most developed areas” (Schiffrin 1984: 314). Conversation Analysis, too, has been concerned a great deal with storytelling (e.g., Sacks 1992). As regards turntaking, it has long been observed by Conversation Analysts that turntaking in storytelling is distinct from turntaking in ordinary
conversation. Goodwin & Heritage (1990: 297), for example, note that storytelling requires “a suspension of the ordinary [turntaking] procedures for the duration of the story”. What these ordinary procedures consist of has most clearly been delineated in Sacks et al.’s (1974) seminal paper on turntaking. What special procedures replace the suspended ordinary procedures in storytelling has been made much less clear. In fact, Conversation Analysts have restricted themselves to a few (very useful) qualitative observations while quantitative examination has long been far off any agenda, Conversation Analytical or otherwise.

The goal of this paper is to detail both quantitatively and qualitatively the extent and the way that ordinary turntaking is suspended and replaced by narrative-specific turntaking in storytelling. The focus will be on turn order though other turntaking parameters intimately associated with turn order such as, for example, turn distribution will be considered too. The methods are both statistical and corpus-linguistic. Statistical analysis is necessary to distinguish results that are due to chance (and hence merely indicative of characteristics in the sample studied) from results that are a reflection of characteristics in the ‘population’ (and hence generalizable from the sample to that population). Corpora are particularly well-suited for quantitative examination of turntaking phenomena if (but only if) they have XML (or similar) markup. XML markup typically identifies speakers’ utterances as ‘elements’ with associated attribute values including speaker IDs; these permit the assignment of utterances to particular participants and the examination of the ‘turns’ they take at speaking. To illustrate, in (1), an excerpt from the conversational component of the British National Corpus (BNC), the two <u>-elements not only enclose the individual turns but also contain, in the form of values on the who-attribute, the speaker ID:

(1)  
\(<u\ who=\"PS01U\">\  
  \(<s\ n=\"324\"\ sID=\"324\"/>\  
  \(<w\ c5=\"VBD\ hw=\"be\ pos=\"VERB\">were</w>\  
  \(<w\ c5=\"XX0\ hw=\"not\ pos=\"ADV\">n't</w>\  
  \(<w\ c5=\"PNP\ hw=\"it\ pos=\"PRON\">it</w>\  
  \(<w\ c5=\"NN1-VVB\ hw=\"love\ pos=\"SUBST\">love</w>\  
  \(<c\ c5=\"PUN\">?</c>\  
  \(<s\ eID=\"324\"/>\  
\)<u/>\  
\(<u\ who=\"PS01T\">\  
  \(<s\ n=\"325\"\ sID=\"325\"/>\  
  \(<w\ c5=\"ITJ\ hw=\"yeah\ pos=\"INTERJ\">Yeah</w>\  
  \(<s\ eID=\"325\"/>\  
\)<u/>\  
(BNC-C: KB2)

As the name suggests, <u>-elements are intended to capture ‘utterances’. We are aware that the conceptual relationship between ‘utterance’ and ‘turn’ is far from straightforward (see, for example, the discussions in Selting 2000, Norrick 2012, Rühlemann 2013). We are further aware that the view of storytelling as a ‘single turn’ (cf. Labov 1972: 366, Chafe 1992: 43) or ‘multi-unit turn’, where the teller’s utterances are seen as turn-constructional units forming an extended turn (cf. Goodwin & Heritage 1990: 299), has some currency. We also acknowledge the similarly common notion that ‘backchannel’ utterances such as mm or uh-huh, which some analysts treat as “talk between listening and speaking” (Gardner 1998: 204), should not be accorded full turn status. Our purpose is not to argue with any of these positions. However, we do want to point out that the stances taken on that matter by pre-eminent Conversation Analysts such as Sacks and Schegloff range from being vague to contradictory to fully contrary to the ‘multi-unit turn’ view and the supposed non-turn status of backchannels. For Sacks, for example, utterance and turn are equivalent:
The question is, why do stories take more than an utterance to produce – where the word “utterance” is equivalent to a turn at talk. (Sacks 1992: 223)

If the multiple utterances (i.e., turn constructional units) produced by the narrator during the course of storytelling “to and with recipients” (Rühlemann 2013: XXX) are taken as a series of individual turns, it follows that what comes between these turns – viz. backchannels such as “Mm hm”s, “Uh huh”s, whatever else they [the recipients of storytelling] put in” (Sacks 1992: 18) – will also (have to) count as turns. This line of thought is reflected in the view of narrative as a ‘multi-turn unit’ (Norrick 2012), where narrator and recipients take turns not only at speaking but at jointly constructing the narrative (cf., for example, Ryave 1978, Blum-Kulka 1993, Schegloff 1997, Ochs & Capps 2001). These considerations as well as practical constraints have led us to treat ‘turn’ and ‘utterance’ as if they are co-synonymous.¹

So turn order is easily tractable in XML corpora. There is, however, a second reason why a focus on turn order in storytelling is particularly revealing. Sacks et al. postulate of turn order in ordinary conversation that, because it is “locally controlled (i.e. turn by turn)” (1974: 708), “[t]urn order is not fixed but varies” (1974: 701). This postulate contrasts sharply with an observation made by Sacks (1992: 18) who describes storytelling as “an attempt to control a third slot in talk, from a first”. It is clear that the attempt referred to is the narrator’s attempt. According to Sacks’ observation, the participant fulfilling the role of narrator will hence take every third turn. Obviously, the ‘every third slot, from a first’ turn order pattern of storytelling is in blatant violation of the ‘no fixed turn order’ rule for ordinary conversation: representing as it does “precisely such a fixed order” (Rühlemann 2013: 79).

Does Sacks’ observation of the ‘every third slot, from a first’ pattern hold true? Rühlemann (2013) investigated turn trigrams, that is, successions of three turns with each new trigram starting with the middle turn of the previous trigram. The issue is illustrated in (2), an instance of a four-party narrative, where the narrator (N) is relating to three recipients (R₁ and R₂; recipient R₃ is verbally inactive during the storytelling event but has been active in the discourse preceding the storytelling) how she cooked a meal for Joy:

(2) **“Stew”**

```
1  N   Oh yeah, what you reckon Joy I did it cos we went to see his
     sister yesterday, cos he's only got one sister so we go and see
     her, see her regular and, she's not all that good is she in health?

2  R₁  No

3  N   So she said she's no car to come over here

4  R₂  Mm

5  N   we go over there and erm so I do, what I did I put that meat out
     to thaw the night before so it was thawed

6  R₂  Mhm

7  N   so I though well I'd put that in with some onion

8  R₂  Mm

9  N   and, so I did, you know, and, and pearl barley in it

10 R₂  Yeah

11 N   and then er I thought oh I might as well put some veg in, you know,
     so I put some veg in, so when we, I says oh I'll do this, I'll do this stew,
     you know, nearly to finish it like, and erm when we come in we'll have
     a meal ready for us, it were right nice coming into it meal ready

12 R₂  Yeah, yeah

13 N   weren't it love?

14 R₁  Yeah
``` (NC: KB2-N2)
As can be seen in (2), all three verbally active participants contribute to the storytelling, taking differential roles (the forth participant’s contribution, if there was one, for example, in the form of non-verbal behavior, cannot be assessed given the lack of visual information). The principal teller N is assisted by recipient R₁, who is apparently familiar with (some details of) the story, whereas R₂, to whom the story is likely new information, is offering tokens of listenership such as mm and yeah, indicating his/her recognition that a story is underway which is going to take more than one turn by the narrator (cf. Schegloff 1982, Sacks 1992). What is striking in terms of turn order is the perfect instantiation of Sacks’s control of ‘the third slot, from a first’ by the narrator, a pattern referred to as the N-notN-N pattern, with N standing for the narrator and notN indicating any one recipient. Consider Table 1, which depicts the interaction in example (2) as a series of turn trigrams. It can be seen that every second trigram is of the N-notN-N type, with the notN slot taken by either R₁ or R₂:

Table 1: Turn trigrams in “Stew”

<table>
<thead>
<tr>
<th>Turns</th>
<th>Trigram</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2-3</td>
<td>N-R₁-N</td>
</tr>
<tr>
<td>2-3-4</td>
<td>R₁-N-R₂</td>
</tr>
<tr>
<td>3-4-5</td>
<td>N-R₂-N</td>
</tr>
<tr>
<td>4-5-6</td>
<td>R₂-N-R₁</td>
</tr>
<tr>
<td>5-6-7</td>
<td>N-R₂-N</td>
</tr>
<tr>
<td>6-7-8</td>
<td>R₂-N-R₁</td>
</tr>
<tr>
<td>7-8-9</td>
<td>N-R₂-N</td>
</tr>
<tr>
<td>8-9-10</td>
<td>R₁-N-R₂</td>
</tr>
<tr>
<td>9-10-11</td>
<td>N-R₂-N</td>
</tr>
<tr>
<td>10-11-12</td>
<td>R₁-N-R₂</td>
</tr>
<tr>
<td>11-12-13</td>
<td>N-R₂-N</td>
</tr>
<tr>
<td>12-13-14</td>
<td>R₂-N-R₁</td>
</tr>
</tbody>
</table>

In a four-party narrative, a broad range of different trigrams are conceivable (altogether, as many as 36 distinct trigrams; see below). Contrary to this range’s width, only two major types occur in the text, viz. the narrator-dominated N-notN-N pattern (for example, N-R₂-N) and its mirror image, the recipient-dominated notN-N-notN pattern (for example, R₁-N-R₂). The N-notN-N pattern (as well as the complement pattern) accounts for 50% of the trigrams in the text. This proportion is grossly contrary to expectations under Sacks et al.’s (1974: 701) above-cited rule that “[t]urn order is not fixed but varies.” If the rule were applicable to conversational storytelling the expected proportion of N-notN-N trigrams would have to be much smaller than 50% (viz. 8%, see below). The pattern’s over-representation in (2) might hence not be by chance. As regards three-party narrative, Rühlemann (2013) found that the proportions of the N-notN-N pattern were significantly greater than expected. To judge by these results, Sacks’ ‘every third slot, from a first’ pattern holds true for narrative with three participants interacting.

The study, however, is preliminary in at least two respects. First, the only type of multi-party storytelling investigated were storytellings with exactly three verbal participants; storytellings with more than three participants were not covered. If Sacks’ ‘every third slot, from a first’ pattern were dominant even in more-than-three-party settings, where increased numbers of potential turn takers mean that the chances for each individual participant to get the turn exponentially decrease, this diversion from ‘ordinary turntaking procedures’ would be even more significant.

Second, Rühlemann (2013) did not investigate the extent to which individual turntaking styles may contribute to the pattern’s prevalence. More precisely, it did not examine the role of what we will call ‘turntakerism’, that is, the tendency of some speakers to take turns more often than other participants. Turntakerism may arise given that turns-at-speaking constitute a resource which is both valued (and hence worth competing for) and scarce (particularly in
multi-party conversation, where the chances to get the turn decrease with each additional participant to the conversation). The potential contribution of individual speakers’ turntakerisms to the N-notN-N pattern is worth examining for the following reasons. In multi-party narrative, the N-notN-N turn order pattern inevitably impacts on turn distribution, of which Sacks et al. note that, like turn order, it is “not specified in advance” (Sacks et al. 1974: 701). However, if the narrator succeeds in controlling ‘every third slot, from a first’, he/she will inevitably have a higher turn share during the storytelling than any one recipient. For example, in four-party storytelling, the narrator’s return to the ‘floor’ in every third slot effectively means that his/her turn share is a multiple of the average share of the three recipients. This inequality in turn share is a necessary correlate of the N-notN-N pattern. Also, the inequality increases with increasing numbers of participants: the more participants there are to a narrative, given the N-notN-N pattern, the more the distribution of turns will be skewed towards the one participant who is the narrator, leaving the recipients in terms of average turn share more and more disadvantaged. Now, if we admit the possibility that speakers differ by the tendency to take or not to take turns, we also have to admit the possibility that speakers with strong turntakerism – that is, speakers whose ‘default’ turntaking style is to tend to grab the turn more often than others – will also try to get more turns than others within storytelling, thereby inevitably boosting their turn share. Suppose we have a storytelling whose primary teller is precisely such a turntakerist and suppose further he or she does indeed come to control ‘every third slot, from a first.’ In this case, we have no means to establish which factor the N-notn-N pattern is due to: it might be the speaker’s individual turntakerism, it might be turntaking mechanisms inherent to storytelling as such, it might be due to both influences. This means that in order to determine the extent to which the N-notN-N pattern is distinctive of storytelling we need to determine the extent to which turntakerism influences turn distribution in storytelling.

In the present paper, we aim to address these issues. First, we investigate the extent to which turntakerism impacts on turn distribution in storytelling. Second, we investigate whether the N-notN-N pattern is constitutive, not only of three-party, but of multi-party storytelling as a whole. Before reporting the results (in Section 3), we describe the data and methods used for this study in brief detail (in Section 2). In Section 4 follows the discussion of the results and in Section 5 we offer some conclusions and directions for future research.

2. Data and methods

2.1 The corpus data and their annotation

In corpus linguistics, interest in conversational storytelling has surged only recently. Two corpora are worth mentioning, the Saarbrücken Corpus of Spoken English (SCOSE) (cf. Norrick 2000) and the Narrative Corpus (NC) (cf. Rühlemann & O’Donnell 2012). The SCOSE comprises conversational stories told in American English and features no annotation, the NC assembles stories extracted from the conversational component BNC-C of the British National Corpus (BNC) and offers multiple layers of narrative-specific annotation. In compiling the two corpora, researchers were confined, in the case of SCOSE, completely and, in the case of the NC, very largely, to manual extraction, i.e., narratives were identified by extensive reading of larger conversational texts. This methodology has obvious disadvantages: it is excessively labor- and resource-intensive and, as a consequence, it severely limits corpus size. The NC, for example, the larger of the two corpora, counts 150,000 words in toto, of which only half (i.e., roughly 78,000 words) are part of the narrative components. The smallness of the NC though is made up for by its detailed annotation (see Rühlemann & O’Donnell 2012), a resource which was crucial for the present research. Among the NC’s various levels of annotation, two are of special relevance for this study: the above-mentioned markup of participant role and the markup of textual components.
In terms of participant roles, the NC’s annotation distinguishes two broad types of roles – narrator and recipient – as well as a number of subtypes. In the present connection, three such narrator sub-roles are relevant:

− PNP\textsuperscript{2}: the Primary Narrator, the main teller, observably the telling’s ‘driving force’;
− PRR: the Responsive Recipient, a story recipient responding to the storytelling in progress by means of listenership tokens (‘backchannels’) thus signalling their understanding that a story is being told which “take[s] more than an utterance to produce” (Sacks 1992: 222);
− PRC: Co-constructive Recipient, a second type of recipient claiming a more active role in the telling by asking questions, adding or requesting information, providing constructed dialog etc. (for an overview of the participant roles and their characteristics, cf. Rühlemann 2013: Chapter 6; for a similar two-way distinction of recipient roles, cf. Goodwin 1986).\textsuperscript{3}

In the NC’s storytelling components, every utterance is assigned to one of these (sub-) types, thus enabling detailed quantitative analysis of how narrators and recipients take turns. Further, narratives in the NC are, as a rule, captured within their (non-narrative) conversational contexts. That is, the ‘texts’ making up the corpus contain, where available, three macro-components:

− CPR: a pre-narrative component, comprising a maximum of 15 utterances preceding the onset of the storytelling;
− CNN: the storytelling itself;
− CPO: a post-narrative component, consisting of a maximum of 15 utterances following the storytelling (for discussions of the issues involved in delineating the boundaries of stories – that is, the identification of the boundary utterances demarcating the transition from pre-narrative to narrative and from narrative to post-narrative, see Rühlemann & O’Donnell 2012 and Rühlemann 2013).\textsuperscript{4}

The basic structure of NC texts is as follows:

Not all stories in the NC (that is, not all CNN components) have pre-narrative (CPR) and/or post-narrative (CPO) embeddings; nor do the embedding components, if available, all have the same length (that is, the same number of utterances). The occasional absence and variable length of pre- and post-narrative components are owed to the occurrence of ‘nested
stories’, usually minimal event sequences told by a recipient within an yet unfinished storytelling by the main narrator (cf. Rühlemann 2013) and, more importantly, the frequent occurrence of story rounds (e.g., Ryave 1978; Ervin-Tripp & Küntay 1997: 143; Norrick 2000: 27), where topically related storytellings may immediately or with little intervening conversation lead into, or follow from, one another.

The means deployed to retrieve more-than-three-party narratives from SCOSE and NC were differential. As noted, the SCOSE is a raw-text corpus without any added linguistic meta-information and not available in XML format; therefore, multi-party narratives were identified by way of reading the texts. The NC, by contrast, is XML-formatted and densely annotated. Thus, automatized searches for multi-party stories were feasible. Specifically, to extract relevant stories from the NC use was made of the XQuery technology, a sophisticated query language developed for XML texts (for a comprehensive overview, see Walmsley 2007; for an introduction for use with corpus data, see Rühlemann 2013).

A critical question is how to determine the number $n$ of participants to the storytelling, that is, the question of what counts as four-party, five-party narrative and so on. In previous research on three-party narratives (Rühlemann 2013), the number of participants to the storytelling was defined as the number of *speakers*, that is, as the number of *verbally active* participants; for a story to count as three-party narrative there had to be three participants actually speaking. In the present research, we adopt a wider notion on the grounds that participants who remain silent during storytelling are nonetheless ratified participants in Goffman’s (1981) sense and thus genuine addressees influencing the course narrative discourse is taking (Schegloff 1997); moreover, as potential next speakers, they are as able and as entitled as any other ratified participant to the conversation to take their turn at speaking at transition relevance points. If participants choose during storytelling not to take the turn, this abstention is, in terms of turntaking as social interaction, as meaningful as other participants’ taking it. In this vein, we also allowed for stories in which the number of verbally active participants was smaller than $n$ (four-party, five-party, etc.) if it could be determined that the actual number of participants to the conversation was larger than the number of speakers in the storytelling. Technically, to determine the number of participants it was necessary, in the case of data from SCOSE, to manually read through the larger contexts containing the stories. In the case of the NC, the number of participants could be determined automatically due to the above-noted fact that the NC does not only contain stories (the CNN components, which the annotation encapsulates within `<seg>`-elements) but also the surrounding conversational contexts both before the storytelling event (pre-narrative component CPR) and after it (the post-narrative component CPO). All three macro-components are subsumed within a `<div>`-element. To determine the number of participants, the XQuery used was instructed to look for $n$ participants not within the `<seg>` element capturing the storytelling component but within the more comprehensive `<div>` element.

While the NC’s annotation marks the beginnings and endings of stories unambiguously, these story boundaries had first to be introduced to the texts in the SCOSE. In determining these boundaries (and thus the number of turns and trigrams), care was taken to respect structural divisions brought about by intervening, potentially unrelated discourse and story rounds. To illustrate the issue of unrelated discourse, example (2) gives the first 10 lines of the text entitled “Jack” from SCOSE. The first two lines uttered by Ned seem to conclude what may have been either a story or a non-narrative event related in some way to the actor Sean Penn. The lines following the two initial lines, however, clearly indicate the beginning of a new event, viz. the initiation of a story by Brandon, to which both Lydia’s and Claire’s actions are reactions in the role as story recipients. Given this division, the first two lines of the text were not counted as part of the storytelling.
(3) Jack

1  Ned  ?  and Sean Penn
2  but other than that.

Story begins

<table>
<thead>
<tr>
<th>3</th>
<th>Brandon N</th>
<th>I was in New York a couple of months ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td>and I was seeing a show called M. Butterfly</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>with John Litgow in it.</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>it’s gotten pretty good uh reviews</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>and one of the people in the crowd to see this show</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>and to see John Litgow was Jack Nicholson.</td>
</tr>
<tr>
<td>9</td>
<td>Lydia R</td>
<td>uh.</td>
</tr>
<tr>
<td>10</td>
<td>Claire R</td>
<td>o:o:h</td>
</tr>
</tbody>
</table>

(...)

As regards the boundary issue in story rounds, consider example (3). Inspection of the text entitled “Poodle” suggests a division into two interrelated stories, or ‘parallel story episodes’ (Ochs & Capps 2001: 32). While the two stories are connected by a shared theme, viz. ‘perm’, they are distinguished in terms of how participant roles are distributed: in the first story Jean is in the role of primary narrator while in the second, or ‘response’, story, this role is taken over by Lynn.

(4) Poodle

Story 1: Poodle I

<table>
<thead>
<tr>
<th>1</th>
<th>Jean</th>
<th>PNP</th>
<th>Annie gave me a permanent once too.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Lynn</td>
<td>PRR</td>
<td>Annie did?</td>
</tr>
<tr>
<td>3</td>
<td>Jean</td>
<td>PNP</td>
<td>once and only one.</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>((general laughter))</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>I would never allow her</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>to touch my hair again.</td>
</tr>
<tr>
<td>7</td>
<td>Lynn</td>
<td>PRC</td>
<td>well remember the time-</td>
</tr>
<tr>
<td>8</td>
<td>Jean</td>
<td>PNP</td>
<td>YOOOH.</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td>talk about afro</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>when afro wasn’t even STYLE.</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>my god.</td>
</tr>
<tr>
<td>12</td>
<td>Annie</td>
<td>PRC</td>
<td>well see</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>I STARTED [something.]</td>
</tr>
<tr>
<td>14</td>
<td>Jean</td>
<td>PNP</td>
<td>[frizz ball.]</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>I was a frizz ball.</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>it wasn’t even afro.</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td>I was just FRIZZ.</td>
</tr>
<tr>
<td>18</td>
<td>Lynn</td>
<td>PRC</td>
<td>remember [when-]</td>
</tr>
<tr>
<td>19</td>
<td>Jean</td>
<td>PNP</td>
<td>[it was] TERRible</td>
</tr>
</tbody>
</table>

Story 2: Poodle II

<table>
<thead>
<tr>
<th>20</th>
<th>Lynn</th>
<th>PNP</th>
<th>Jennifer</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td></td>
<td></td>
<td>the first time Jennifer had a perm</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td>when she came home.</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
<td>it was the funniest thing.</td>
</tr>
</tbody>
</table>
The two SCOSE examples highlight two more things. First, example (3) is a reminder that, as noted earlier, the number of verbally active participants is insufficient to determine the total number of participants, with three participants speaking in Poodle I but four participants speaking in Poodle II; given the (highly likely) co-presence of the forth speaker (Helen) during the storytelling of Poodle I, both episodes were counted as four-party narratives. Second, examples (3) and (4) show the participant codes used to determine participant role. To align coding of the SCOSE data to that of the NC, the above-noted participant role tags used in the NC (cf. Rühlemann & O’Donnell 2012) were transferred to the stories identified in the SCOSE.

A constraint set to data from both corpora relates to story length as measured by the number of turns per story. The minimum number of turns per story was set to five, to ensure that the minimum number of trigrams was three per story (only two stories had as few as five turns/three trigrams, the vast majority have far more of either category).

The data thus retrieved are summarized in Table 2. As can be seen, the number of stories and turns retrieved from the NC by far outnumber those from SCOSE: a total of 42 stories were found in the former compared to a total of 19 from the latter. The retrieval identified four-, five-, six-, and seven-party narratives; three-party narrative investigated in Rühlemann (2013) was only included in the analysis for comparative purposes. In the SCOSE, the number of six- and seven-party storytellings was 0. Also, narratives involving more than seven participants were not found in either corpus. This fact, as well as the strong negative correlation between increases in number of participants (n) and decreases in the number of stories identified in both corpora is a reflection of the preference of the turntaking system for smaller numbers of participants (Sacks et al. 1974: 701).

Table 2: Number of stories and turns retrieved from the NC and SCOSE

<table>
<thead>
<tr>
<th></th>
<th>4-party Stories</th>
<th>5-party Stories</th>
<th>6-party Stories</th>
<th>7-party Stories</th>
<th>totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stories</td>
<td>Turns</td>
<td>Stories</td>
<td>Turns</td>
<td>Stories</td>
</tr>
<tr>
<td>NC</td>
<td>23</td>
<td>384</td>
<td>12</td>
<td>175</td>
<td>3</td>
</tr>
<tr>
<td>SCOSE</td>
<td>14</td>
<td>239</td>
<td>5</td>
<td>59</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>37</td>
<td>623</td>
<td>17</td>
<td>234</td>
<td>3</td>
</tr>
</tbody>
</table>

It is crucial to reiterate the most crucial differences between the two data sets: the SCOSE data are ‘poor’ data consisting of raw-text stories and nothing else but the stories; the only type of annotation (added for present purposes) is for participant role (narrator, recipient, etc.). The NC data, by contrast, are ‘rich’ data consisting not only of the stories themselves (the
CNN components) but also of the neighboring non-narrative stretches plus a broad range of annotation types, including most importantly, participant role and speaker IDs. Given these stark differences, the NC data and the SCOSE data cannot be analyzed in the same way nor do they necessarily allow investigating the same research questions. One research question that cannot be addressed in both corpora is turntakerism. The investigation of this phenomenon requires comparative data in the form of the speakers’ turntaking behavior both in narrative as well as non-narrative discourse. Since the SCOSE data are narrative-data only, the investigation of turntakerism can only be performed on the NC, where both narrative and non-narrative data are available. Further, the differences in data structure between the two corpora determine different paths to addressing the question of the N-notN-N pattern’s predictiveness. In the NC, predictiveness can again be approached comparatively, by taking turn order patterns observed outside of narrative (in the non-narrative components CPR and CPO) as a backdrop against which to assess turn order patterns observed within narrative (the CNN component). In SCOSE, by contrast, predictiveness needs to be examined in terms of a null hypothesis which is derived from observations in the literature, namely Sacks et al.’s (1974) seminal paper on turntaking.

Readers may wonder why not give preference to the ‘richer’ data and discard the ‘poorer’ data in the first place. Two answers spring to mind. First, data which is poorer in the sense that it boasts less meta-information (i.e., annotation) need by no means be ‘poorer’ in terms of the insights facilitated by it; annotation may not always be consensual (cf. Leech 2005: 21), and those disagreeing with the decisions underlying the annotation may see the raw version as preferable. Second, if one can examine the same question from two distinct angles, each informed by distinct data, and arrives at the same conclusion, this conclusion will inevitably gain in strength.

2.2 **Statistical analysis of turntakerism**

As noted above, our first research question was to examine the influence on turn order of what we referred to as turntakerism, that is, speakers’ individual tendencies to take the turn in whatever type of conversational activity (narrative or non-narrative). How can individual speakers’ turntakerisms be measured? The obvious answer would be by examining the speakers’ turntaking behavior in large sets of non-narrative data. While we certainly cannot claim to have large amounts of such data, we do at least have some of it. This data comes from the above-mentioned special structure of the texts in the NC, where, as a rule, narratives are embedded within their non-narrative conversational contexts, more specifically, within the pre-narrative (CPR) and the post-narrative (CPO) textual components. These non-narrative components, however limited, allow us to observe a snapshot of speakers’ turntakerism and to at least initially measure turntakerism by recording for each speaker the number of turns taken in these components and viewing it in relation to the number of turns taken by all participants, thus computing a turn proportion – the speaker’s turn share. This turn share itself is of course not yet fully indicative of a speaker’s turntakerism; to be fully indicative it would have to be based on many more texts and contexts. What the turn share found in the non-narrative component(s) does, however, is provide a yardstick against which to compare the same speaker’s turn share found in the storytelling component. If the speaker’s turn share in non-narrative conversation was high and remains high in a narrative where the same speaker acts as the narrator, it will not be possible to say with confidence which factor the N-notN-N pattern is due to: it could be storytelling, but also just turntakerism, or both. If, however, the speaker’s turn share in non-narrative conversation was low and turns out significantly higher in narrative, we can rule out turntakerism as the source of the N-notN-N pattern more safely.

In order to explore the degree to which the narrator’s turn share is higher than expected from their general turntakerism, we wrote R scripts to set up the data for easy analysis. Specifically, for each of the 42 conversations in the NC, we identified which components occur in the conversation: CPR and/or CNN and/or CPO (because, as said earlier, not every
conversation featured a CPR or CPO component) and the number of turns the narrator had in each attested conversational component. Given that componential annotation is not available for the SCOSE data, this analysis was limited to NC data.

For each conversation, we then used exact binomial tests to determine whether the observed percentage of turns that the narrator has in CNN is significantly higher than expected from the proportion of turns that the narrator has in CPR, CPO, or in CPR and CPO. Let us discuss this briefly on the basis of one example, the conversation “Stew”, whose narrative component CNN was discussed above; see the Appendix for the full transcript of the text including the non-narrative components CPR and CPO:

Table 3: Turns in the pre-narrative (CPR), narrative (CNN), and post-narrative (CPO) components of text “Stew”; ‘Recipient X’ refers to speaker S4 who remains verbally inactive in the storytelling component CNN

<table>
<thead>
<tr>
<th>Component</th>
<th>N (S2)</th>
<th>Recipient 1 (S1)</th>
<th>Recipient 2 (S3)</th>
<th>Recipient X (S4)</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPR</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>CNN</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>CPO</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>4</td>
<td>14</td>
<td>2</td>
<td>38</td>
</tr>
</tbody>
</table>

For this conversation, three tests were conducted: We tested whether the observed percentage of turns the narrator has in CNN ($\frac{7}{14}=0.5=50\%$) is significantly higher than

- the percentage of turns the narrator has in CPR: $\frac{3}{9}=0.333=33\%$;
- the percentage of turns the narrator has in CPO: $\frac{8}{15}=0.533=53.3\%$;
- the percentage of turns the narrator has in CPR and CPO combined: $\frac{3+8}{9+15} \approx 0.458=45.8\%$.

In this case, this means using the binomial distribution to compute the probability of 7 or more turns out of 14 if

- the probability of a turn is 0.333, which is ≈0.15, i.e. not significant;
- the probability of a turn is 0.533, which is ≈0.698, i.e. not significant;
- the probability of a turn is 0.458, which is ≈0.479, i.e. not significant.5

That is, in this particular case, the number of turns of the narrator N in CNN is not significantly higher than her number of turns elsewhere (i.e., in CPR, CPO, or both). Similar analyses were then conducted for the other conversations.

2.3 Statistical analysis of the predictiveness of N-notN-N sequences
As noted, the question of predictiveness is approached from two angles corresponding to the two distinct data sets available, the NC and the SCOSE data. The analysis begins with the NC data.

2.3.1 Predictiveness in the NC
In order to explore the degree to which N-notN-N sequences are predictive/characteristic of narrative sequences, we wrote R scripts to determine the numbers of times that N-notN-N sequences occurred in CNN and stored those in a variable called ins. Then, we determined the numbers of times the same turn order pattern occurred in the non-narrative components CPR and CPO (with the speaker who is the narrator N in CNN occupying the first and the third slot in turn trigrams). We refer to this pattern as the 'n-notn-n' pattern (with lower case ‘n’ to
acknowledge the fact that in non-narrative discourse a speaker cannot be referred to as narrator). We stored occurrences of these n-not-n trigrams in a variable called outs. For the conversation “Stew”, for instance, there were 6 N-notN-N sequences in CNN — i.e. ins_stew_CNN=6 — and 8 n-not-n sequences in the non-narrative components of which 1 occurred in the pre-narrative component (CPR) — i.e. outs_stew_CPR=1 — and 7 in the post-narrative component (CPO) — i.e. outs_stew_CPO=7. The final step then consisted of plotting ins (N-notN-N trigrams) and outs (n-not-n trigrams) against each other, the former on the x-axis, the latter on the y-axis so that, if N-notN-N sequences are predictive of narrative/CNN components, then most points should be located under the main diagonal in the bottom right part of the plot where high values of ins coincide with lower values of outs. In addition, we computed a paired Wilcoxon test to see if the values of ins are on average higher than those of outs.

2.3.2 Predictiveness in the SCOSE
To examine predictiveness in the SCOSE, for which only 4- and 5-party narratives and no non-narrative data are available, we based our analysis on Sacks et al.’s (1974) postulate that “[t]urn order is not fixed but varies” (1974: 701). If this postulate is justified, it follows that, in principle, the probabilities to take the turn are equal for all participants. This is unreservedly true for the first turn in a story. In this initiating turn, the chances for any participant to get the turn are $1/n$ (with $n$ meaning number of participants to the conversation). For example, in four-party narrative, chances for first-turns are $1/4$, in five-party narrative $1/5$, and so on. Since the same participant cannot by definition occupy any two successive turns, the chances for any one of the remaining participants to get the immediately next turn are $1/(n-1)$; thus, in four-party narrative, chances for next-turns are $1/3$, in five-party-narrative $1/4$ and so forth. Following this logic, we adopted a three-step methodology.

First, we calculated the expected proportions of N-notN-N trigrams experimentally by performing simulations in R. For each $n$, the simulation was for a total of 10,000 turns. A random sample was taken from all conceivable turn combinations. The proportion of N-notN-N trigrams out of all 9,998 trigrams was calculated. This procedure was repeated 100 times and the mean proportion of N-notN-N trigrams was computed for all 100 simulations.

Second, to have a yardstick against which to compare these expected proportions, we determined the observed proportions of N-notN-N trigrams. Using R, all trigrams were extracted and classified as either matching or not matching the N-notN-N pattern and the proportions of N-notN-N trigrams were calculated.

Finally, to discover whether the inevitable differences between observed and expected proportions are significant, we used bootstrapping, a non-parametric resampling method which “treat[s] the sample as if it is the population” (Mooney & Duval 1993: 9). For each $n$, 10,000 resamples were drawn randomly and with replacement from the original samples of trigrams. Based on the differences in the resamples’ means and standard deviations, essentially what the bootstrap did was to calculate 95% confidence intervals (CIs) for the ‘true’ proportion of N-notN-N trigrams: if the observed proportion comes to lie outside this interval, the difference can be confidently considered significant.

3. Results

3.1 How does turntakerism impact on the narrator’s turn share in storytelling?
The results with regard to the potential influence of speakers’ turntakerism on their turn share as narrators are mixed. Of the 41 conversations that had at least a CPR or a CPO component, slightly more than half (21, 51.2%) did not exhibit any significantly higher frequency of narrator turns in CNN compared to either CPR, CPO, or CPR/CPO. The other 20 (48.8%) conversations yielded at least one significant result: the narrator’s turn share was different either in CPR, or
CPO, or CPR/CPO and without exception the significant results were cases where the narrator’s turn share in CNN was higher (rather than lower) compared to the other components. Table 4 lists the conversations with at least one significant turn share comparison; asterisks indicate the component(s) from which turn share in CNN differed significantly.

Table 4: Conversations with at least one significant turn share comparison.

<table>
<thead>
<tr>
<th>CONV</th>
<th>CPR</th>
<th>CPO</th>
<th>CPR/CPO</th>
<th>CONV</th>
<th>CPR</th>
<th>CPO</th>
<th>CPR/CPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bingo</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Richard's egg salad</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Chest pain</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Richard's house</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate toffees</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Rip off</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Hush puppies</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Rugby injury</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Living daffodils</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Sally the dog</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locks on the windows</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Silly comment</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>On top of a wall</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Sleep-coughing</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Pinched car</td>
<td>*</td>
<td></td>
<td></td>
<td>Valium for alcohol?</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Racing out the office</td>
<td>*</td>
<td></td>
<td></td>
<td>Wedding</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Recording session</td>
<td>*</td>
<td>*</td>
<td></td>
<td>Wicked boogie</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

It is interesting to point out that there is no preference for the narrator’s turn share to be significantly different from CPO (12 conversations) rather than CPR (14 conversations), or vice versa.

In sum, while the evidence for the hypothesis that narrators have higher turn shares in narratives is not strong, it is nonetheless very suggestive: In spite of very small sample sizes, half of the conversations exhibit at least one significant difference in narrator turn share and all observed significant differences are in the hypothesized direction.

3.2 Are N-notN-N sequences predictive of narratives?

3.2.1 Results from the NC

The results are straightforward. The scatterplot in Figure 1 shows the overview results for CPR (left panel) and CPO (right panel): The x-axis represents the numbers of times that N-notN-N sequences were attested in CNN; the y-axis represents the numbers of times that n-notn-n sequences (as defined above) were attested in CPR and CPO respectively; each plotted number is one conversation with the number representing the number of participants in the conversation; the larger bold numbers in the three corners indicate the total numbers of conversations (i) where the x-axis values (the number of N-notN-N trigrams) were greater than the y-axis values (the number of n-notn-n trigrams), (ii) where the x-axis values were less than the y-axis values, and (iii) where the two were identical. As mentioned above, if N-notN-N sequences are predictive of CNNs, we will expect to find more N-notN-N’s than n-notn-n’s and hence, to see most points in the bottom right triangle of Figure 2. This is indeed the case: there were 23 N-notN-N’s compared to 8 n-notn-n’s for CPR and 22 N-notN-N’s compared to 6 n-notn-n’s for CPO (for this latter component there were 7 conversations with identical numbers of N-notN-N and n-notn-n trigrams). According to paired Wilcoxon tests these differences between the N-notN-N and n-notn-n values are enough to reach standard levels of significance, indicating a clear tendency of N-notN-N sequences to be predictive of narratives.
Figure 1: Scatterplots of N-notN-N trigrams in CNN vs n-notn-n trigrams in CPR (left panel) and CPO (right panel)

Yet another interesting observation can be made. We also investigated whether the conversations listed in Table 5 above, in which the narrator’s turn share was significantly higher than his/her turn share in at least one other conversational component, exhibit predictive N-notN-N sequences. We therefore computed the pairwise differences of the x-axis values and the corresponding y-axis values of Figure 1, i.e. the N-notN-N sequences in vs. outside of CNN; for example, the left panel of Figure 1 has a “6” at $x=2, y=7$, which yields a $2-7=-5$. Then we tested whether these differences were the same for the conversations of Table 4 vs. the others. A $U$-test shows that they are: The conversations where the narrative component is characterized by a higher turn share (as identified in the previous section) exhibit significantly higher numbers of N-notN-N sequences in said narrative component than in CPR or CPO ($V=211; p<0.001$). This additional information of whether a conversation had at least one significant turn share difference or not can be added to Figure 1 using colors: blue for the former and red for the latter; the italicized red and blue numbers now represent the conversations in the two halves of the graphs and whether they were part of Table 4. The graph clearly reflects the significant result of the $U$-tests and shows that, if the narrator has a higher turn share in CNN (blue numbers) than is predictable on the basis of his/her turntakingism in the non-narrative components, then this higher turn share in CNN comes in the form of N-notN-N sequences, as indicated by the area inhabited by the blue points. Note in particular that all of the conversations with a higher turn share of narrators exhibit $ins$-values larger than $outs$-values and thus the expected predictiveness: there is not a single blue conversation number in the upper left triangle.
Figure 2: Scatterplots of N-notN-N trigrams in CNN vs n-notn-n trigrams in CPR (left panel) and CPO (right panel). Blue conversations have significantly higher narrator turn share in CNN, red conversations do not.

Thus, we find a predictive presence of N-notN-N sequences for narratives in general, but particularly so for the conversations with narrator turn share higher in CNN than expected on the basis of their turntakerism in non-narrative components and this predictiveness is not correlated with the number of participants in the conversation. Are these results obtained from the NC reinforced by the results obtained from SCOSE?

3.2.2 Results from SCOSE
The results obtained from analysis of the SCOSE data are as straightforward as the results presented in the previous section. As noted, the expected proportions (obtained from simulations) and the proportions of N-notN-N trigrams observed in the SCOSE data were juxtaposed. The results are shown in Table 3:

Table 3: Observed and expected proportions of N-notN-N trigrams in 4- and 5-party narrative in SCOSE

<table>
<thead>
<tr>
<th></th>
<th>4-party stories</th>
<th>5-party stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>All trigrams</td>
<td>211</td>
<td>49</td>
</tr>
<tr>
<td>N-notN-N trigrams</td>
<td>57</td>
<td>16</td>
</tr>
<tr>
<td>Observed proportion</td>
<td>0.27</td>
<td>0.33</td>
</tr>
<tr>
<td>Expected proportion</td>
<td>0.08</td>
<td>0.05</td>
</tr>
</tbody>
</table>

The observed proportions clearly differ from the expected proportions. Given these large differences, the results of the bootstraps are not surprising. For any \( n \) under examination, the confidence intervals (CIs) obtained did not cover the expected proportion. The CIs are depicted in Figure 3. In both panels, three pieces of information are key for the interpretation of the graph: the bottom line represents the expected proportions of N-notN-N trigrams, the x-signs mark the observed proportions, and the vertical dashed lines delimit the bootstrap CIs. In the left panel this information is depicted for the SCOSE data, which are the focus of this section.
First, note that the CI for 5-party stories is much wider than the CI for 4-party stories. This is potentially a reflection of two facts: (i) the variation in the proportions found (this variation may be greater for 5-party stories) and (ii) the variation in sample size (remember that there are more 4-party narratives than 5-party narratives in the data; cf. Table XX above). Whatever these differences, though, the graph clearly demonstrates that the expected proportions lie far outside the CIs. The difference in proportion is hence significant: the number of N-notN-N trigrams in SCOSE 4- and 5-party stories is greater than expected.

To complement the picture and allow comparisons, Figure 3 also presents the bootstrap CIs for the NC stories, including 3-party stories (relevant data taken from Rühlemann 2013). In the case of 3- to 5-party narrative, where the samples are large, the CIs obtained are narrower and the distance between them and the expected proportion is considerable. For 6- and 7-party narrative, where the samples are small, the CIs are much wider and, particularly for 6-party narrative, the CIs are much closer to the expected proportions. But even for 6-party narrative, as for all other types of multi-party narrative in the NC, the expected proportion lies outside the CI: hence, like for the SCOSE stories, the expected proportions for the NC stories are not the true proportions but these true proportions of N-notN-N trigrams out of all trigrams are invariably greater than expected.

4. Discussion

Two key findings were reported in the previous section, the first related to turntakerism and its influence on the narrator’s turn share, the second related to the predictiveness of N-notN-N trigrams in narrative. In this section, we discuss these findings and consider their implications.
4.1 Turntakerism

As noted in the Introduction, it cannot be assumed a priori that turn order in storytelling is governed alone by patternings inherent to storytelling as a generic activity. Turn order in narrative could also be influenced by individual turntaking styles independent of the generic activity the speakers are involved in: narrators may get every second turn and thus many more turns than any one other participant in multi-party narrative not because this were the turn order schema inherent to doing storytelling in conversation, but simply because the individual narrator’s turntaking style is always more dominant than that of others, both inside and outside of narrative. We referred to this turntaking style as turntakerism and hypothesized that speakers acting as narrators have higher turn shares than when acting as normal speakers in non-narrative conversation. The evidence we found to support this hypothesis was mixed but nevertheless suggestive. Two findings are noteworthy. First, in half of all stories the narrators’ turn shares were significantly different from their turn shares in non-narrative conversation. This already suggests that individual turntaking patterns do not easily cross ‘borders’: put differently, for many speakers, turntakerism is not independent of generic activity; they adapt their turntaking styles to the conversational genre at hand. Second, all significant differences were in the hypothesized direction, that is, in half of all stories the narrator’s turn share was larger than expected on the basis of their turn share in non-narrative conversation, or, the inverse, not a single significant difference was in the opposite direction, with the narrator’s turn share lower than in non-narrative conversation. In other words, if change occurs in the speaker-turned-narrator’s turn share, it is uni-directional: the narrator cannot but gain in turn share.

The fact that no significant differences were found in half of all conversations cannot be taken as evidence that turntakerism determines turn order in narrative. The sameness of turn share outside and inside narrative can be due to different reasons: outside, the speaker’s turn share may be high because of strong turntakerism; inside, it may be high because storytelling is going on and recognized by the other participants who agree to let the narrator control every third slot, from a first. Where there are no significant differences the question of whether turntakerism has an impact on turn share in narrative simply cannot be answered. The evidence is inconclusive. By contrast, where there are significant gains in turn share we can conclude that turntakerism does not have predictive power for the increased distribution of turns towards the narrator. In these cases, then, the gain in turn share must be due to some other mechanism. The results for the second research question we pursued in this paper suggest the determining factor behind the increase in turn share is the N-notN-N turn order pattern. To sum up the discussion of the results on turntakerism, it seems permissible to conclude that turntakerism does not have a major impact on turn distribution in narrative; where there are no significant increases in turn share, the evidence is inconclusive, where the increases are significant, the evidence is conclusive in the sense that the impact of turntakerism on turn distribution in narrative is negligible.

4.2 Predictiveness of N-notN-N

While the results for turntakerism defy easy interpretation, the results for the predictiveness of the N-notN-N pattern are straightforward and offer intriguing implications for turntaking in storytelling. Both corpora in which the pattern’s predictiveness was examined yielded unambiguous findings: the pattern is unexpectedly common in narrative and hence characteristic, or predictive, of narrative in conversation. This finding has important implications in two respects.

First, Sacks et al.’s dictum that turn order is not fixed in advance does not hold true for conversational narrative. Here, turn order is fixed in advance in the sense that it is biased towards the narrator, who is granted control of ‘every third slot, from a first’; likewise, turn distribution is biased towards the narrator, who gets more turns than any one co-participant. Turn order in conversational narrative is hence not locally controlled, on a turn-by-turn basis,
but globally, on the basis of the activity the conversationalists are involved in, viz. storytelling. Sacks et al. (1974) acknowledge the possibility of turn-order bias; however, they only discuss this bias in the context of repair techniques next speakers use to elicit elaboration, clarification, etc. from the previous speaker, thus “select[ing] the just prior speaker as the next speaker” (Sacks et al. 1974: 717). While many recipient responses can indeed be seen as repairs in this sense, many (perhaps most) cannot, particularly if the responses are backchannels merely acknowledging the incoming narration by the main teller. So, turn-order bias in conversational narrative is not only “overtly directed to problems of understanding prior utterance” (Sacks et al. 1974: 720) but needs to be seen in a much wider perspective: not only locally, as an attempt by a recipient to encourage the teller to clarify some story details mentioned in the immediately previous turn, but globally, as a necessary correlate of the overall generic activity the speakers are engaged in, viz. storytelling.

Second, a fundamental entailment of the N-notN-N pattern concerns the notN slot in the trigram’s center: this slot can by definition only be held by a single recipient. This is by no means to be expected in multi-party narrative with n-1 recipients (two in 3-party narrative, three in 4-party narrative, four in 5-party narrative and so forth), where the number of recipients is hence invariably a multiple of the single narrator. The N-notN-N pattern can only exist if exactly one recipient out of n-1 recipients takes the notN slot rather than more than one recipient taking the slot at the same time (that is, in overlap\(^{10}\)) or consecutively (that is, immediately following each other). In both cases (overlapping responses and consecutive responses), the N-notN-N pattern collapses and is replaced by N-R\(_1\)-R\(_2\). In other words: the overrepresentation of N-notN-N is inevitably correlated with the underrepresentation of N-R\(_1\)-R\(_2\). What this means becomes clearer if we consider Figure 4, which represents participational schemas for the N-notN-N turn order for 3- to 7-party narrative.

As is illustrated by Figure 4, the N-notN-N pattern most tightly constrains turn order variability not only for the narrator, who occupies every third slot, from a first, but, more strikingly, for the recipients, whose number (two in 3-party, three in 4-party, etc.) has no influence on the turn order outcome: whatever their number, the N-notN-N pattern allocates a single slot for all of them. The N-notN-N pattern demands single-responses, with exactly one response occurring before the narrator takes over again; double-responses, where one recipient’s response is followed immediately, or superseded simultaneously, by another recipient’s response, are avoided. The underlying turn order structure, thus, strikingly resembles that of 2-party talk, with merely two alternating slots available. As can be seen from the figure, achieving single-responses and avoiding double-responses is no small task. For example, in 4-party narrative there are three recipients with each of them potentially competing for the single-recipient slot. Suppose that one of them is a heavy turntakerist used to ‘but in’ wherever possible – how likely is the occurrence of double-responses? Quite likely (even if all recipients are reticent turntakerists). Needless to say that, for example, in 7-party narrative, with as many as six recipients, the likelihood of double-responses is even much higher. But double-responses do not happen as much as would be expected. For example, in 4-party narrative, where there are as many as 36 distinct trigrams possible, the number of double-response trigrams is 6 and, assuming equi-probability for all trigrams, the expected proportion is 0.17. However, in the 37 4-party stories (see Table 2 above) only 55 trigrams out of a total of 549 trigrams are double-response trigrams – a proportion of merely 0.10.
According to a bootstrap along the lines described above, the true proportion of double-responses for 4-party narrative lies between 0.07 and 0.16. The difference may hence be considered significant. Single-responses are overrepresented whatever the recipients’ number. The critical question arising from this observation is what techniques are used to allocate this single-recipient turn and to ensure that double-responses are avoided. To answer this question the Sacks et al.’s turn-order bias, “that prior speaker [the narrator] can systematically be selected [by recipient] to be next speaker” (Sacks et al. 1974: 720) is insufficient since it merely describes what can be observed at the surface, viz. the N-notN-N pattern; it does not help uncover the interactional mechanisms feeding the pattern. One recipient’s intended turn-order bias (giving the turn back to the immediately prior speaker) need not be accepted by another recipient, who might instead try to slip in between the first recipient and the returning narrator. Also, Sacks et al.’s ‘current selects next’ technique (1974: 716) falls short of accounting for the persistence of the N-notN-N pattern since the current speaker’s (i.e. the narrator’s) intention to select a next speaker in such a way as to get the turn back from that next speaker may be undercut by another speaker’s (i.e. recipient’s) intention to get in a word. Indeed it seems that the crux of the turn allocation techniques Sacks et al. discuss is that they all represent local allocation techniques operating from one turn to the next. However, since the N-notN-N pattern is a global turn-order phenomenon persisting all through the storytelling event, a strictly local perspective must be inadequate. Indeed, it is even questionable whether the mechanisms

Figure 4: Participational schemas for the N-notN-N turn order for 3- to 7-party narrative
underlying the N-notN-N pattern can be explained in turntaking terms at all. Rather it seems plausible that, as Sacks et al. (1974: 709) note, “[t]he sources of this [turn-order] bias are external to the turn-taking system’s basic organization.” It is tempting to imagine that the ‘external source’ of the N-notN-N pattern is a tacit agreement by the recipients not only to accept, for the duration of the story, serious disadvantages vis-à-vis the narrator in terms of turn distribution and turn order but also to observe that the single-response slot is filled by exactly one recipient. To this end, the current recipient’s turn filling the single-response slot might be taken on behalf of all other recipients, with the current recipient acting as a ‘spokesperson’ for all recipients present. This analysis makes sense particularly in cases where the recipient fills the single-response slot by uttering minimal response tokens – continuers, in Schegloff’s terms (1982) – which are not directed at the story’s content but display “an understanding that an extended unit of talk is underway by another [speaker] and that it is not yet, or may not yet be (...) complete” (Schegloff 1982: 81). There, one recipient’s listenership token is taken as functionally sufficient a signal for all recipients. The effect of this ‘spokesperson technique’ is an “economy of listening” (Rühlemann 2013: 90) whose motivation may stem from the disadvantages that come with the recipient role. Considering that turn order and turn distribution are so heavily biased toward the narrator, the quickest way to get out of that ‘bad fix’ is to economize on responses: the fewer there are, the faster the return to ordinary turntaking procedures becomes possible. It is further hard to imagine that this agreement is implemented without all recipients actively paying attention to it. Instead it seems there “must exist a mutual orientation between the recipients (...) monitoring in some way each other’s likely or current actions” (Rühlemann 2013: 90). How this monitoring happens, what clues recipients send out, and look out for, to select the spokesperson and to avoid double-responses as the spokesperson is yet unclear. Further note that the spokesperson role is not allocated to the same speaker for all response-slots but recipients take turns at being spokesperson. For illustration, re-consider the text “Poodle II”, where two recipients take turns at filling the single-recipient slot, as shown in Figure 5.

An intriguing question relates to how this recipient turntaking is organized. Obviously, ‘current selects next’ may be at work in the guise of ‘narrator selects recipient’. However, we cannot discard the possibility that recipients have means of organizing that turntaking among themselves, independently of the narrator. That is, we face the possibility that there is in operation a Recipient-Subsystem intersecting and interacting with the Narrator-Recipient System but still, to an extent, operating on its own terms. What means recipients deploy to implement their turntaking at the single-response slot and to what extent this turntaking system operates independently of the Narrator-Recipient System are exciting and as yet completely open questions meriting future investigation.
5. Concluding remarks

The investigation into turntakerism reported in this study has wide implications for the study of speaker style although it was merely initial considering the small sample sizes we had. As noted, it was possible only to take snapshots of individual turntaking preferences; to establish more reliably whether speakers differ by turntaking style far larger amounts of data would be desirable. If future investigations into turntakerism were to discover such differences, this discovery would contribute substantially to the linguistic understanding of speaker style suggesting that turntaking is yet another dimension by which speakers’ styles can vary.

Also, corpus linguistic research has so far predominantly focused on language output in abstraction from the individual speakers that produce it. While speaker groups have been researched in corpus-informed sociolinguistic studies, differences between, and characteristics of, individual speakers has not been a major concern of corpus linguistics. This study has demonstrated that corpus data do lend themselves to such analyses of the ‘linguistic individual’ (Johnstone 1996). Using corpora to investigate the linguistic individual is an exciting avenue for future corpus research.
Further, the findings related to turn order (and also turn distribution) in narrative have important implications for the study of turn-taking as such. While the descriptions of turn-taking procedures proposed by Conversation Analysts will doubtlessly remain foundational in the study of turn-taking in conversation, we have demonstrated that there is far greater turn-taking variability in more specialized conversational genres such as storytelling than has hitherto been recognized and validated in empirical and statistical terms. Again, we are convinced that corpora offering XML annotation may be particularly powerful tools for penetrating more deeply into turn-taking organization in different speech genres, much of which may still be terra incognita.

References


Appendix: Text “Stew”

<table>
<thead>
<tr>
<th>CPR</th>
<th></th>
<th>CNN</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3</td>
<td>Oh</td>
<td>S2 N</td>
</tr>
<tr>
<td>S2</td>
<td>It's nice this stew is</td>
<td>N</td>
</tr>
<tr>
<td>S3</td>
<td>It's alright if you like in it, I put steak and kidney in it</td>
<td>N</td>
</tr>
<tr>
<td>S4</td>
<td>(???)</td>
<td>S2 N</td>
</tr>
<tr>
<td>S3</td>
<td>seems to be ate tons of it (laughing) today, eh</td>
<td>N</td>
</tr>
<tr>
<td>S2</td>
<td>There's plenty of meat</td>
<td>N</td>
</tr>
<tr>
<td>S4</td>
<td>(???)</td>
<td>S2 N</td>
</tr>
<tr>
<td>S2</td>
<td>yeah we ate we right enjoyed it</td>
<td>N</td>
</tr>
<tr>
<td>S3</td>
<td>It's nice and tasty though don't it? It warms you up</td>
<td>N</td>
</tr>
</tbody>
</table>


to thaw the night before so it was thawed

S3 R₂ Mhm
S2 N so I though well I'd put that in with some onion
S3 R₂ Mm
S2 N and, so I did, you know, and, and pearl barley in it
S3 R₂ Yeah
S2 N and then er I thought oh I might as well put some veg in, you
know, so I put some veg in, so when we, I says oh I'll do this, I'll do
this stew, you know, nearly to finish it like, and erm when we come in
we'll have a meal ready for us, it were right nice coming into it meal
ready
S3 R₂ Yeah, yeah
S2 N weren't it love?
S1 R₁ Yeah

CPO

S2 Can be, how my hyacinth gone, look at it, the silly thing (laugh)it's
gone cock-eyed, can you see it
S3 Mm
S2 instead of growing up straight look one of those things has broke off
on that Alec
S1 Yeah
S2 I've got plants, quite a few plants upstairs, the only geraniums I've put
in my greenhouse has died, must of been too cold for them
S3 Yeah
S2 but I put some upstairs, good job, but I did loads didn't I all little
cuttings, they were coming on a bit weren't they?
S1 Mm
S2 Still
S3 You learn don't you? Live and learn
S2 Yeah, I cooked a lasagne this morning, I thought well
S3 Yeah
S2 just pop it in oven then when they come in
S3 Ah yeah
S2 Mm

(NC: KB2-N2)
The binomial distribution is the probability distribution that allows one to compute the probability of a number of successes out a number of trials. In the standard textbook example, one would use the binomial distribution to compute the probability to get ‘heads’ three or more times (the number of successes) when one tosses a coin four times (the number of trials) and the probability of heads and tails is 0.5=50% each. In this example, that probability would be 31.25%, namely the probability to get ‘heads’ three times in four tosses when \( p \text{\textit{heads}} = 0.5 \) + 6.25% (the probability to get ‘heads’ four times in four tosses when \( p \text{\textit{heads}} = 0.5 \)).

While the majority of stories are initiated by the one participant who is turning into the teller some stories are started or elicited by recipients. Recipient-initiated stories account for 3% of all the stories in the NC (cf. Rühlemann 2013: 254).

The following is the R code used for 4-party narrative (any characters to the right of the # sign are comments used for explanatory purposes; all characters to the left of # are part of the code). Similar simulations were performed for all \( n \) under scrutiny.

```r
set.seed(123)

turns <- c("R1", "R2", "R3", "N") # labels for participants

proportion <- c() # loop to repeat the sampling procedure 100 times

for (j in 1:100) {
  path <- c() # turn 1: p=1/4 for each participant
  for(i in 1:10000)
    path[i] <- sample(turns[-which(turns==path[i-1])],1, p=rep(1/3, 3)) # turn 2+: p=1/3

  trigrams <- c()
  for(i in 1:9998)
    if(path[i] == "N" & path[i+2] == "N") trigrams[i] <- 1 # N-notN-N trigrams
    if(path[i] != "N" | path[i+2] != "N") trigrams[i] <- 0 # not N-notN-N trigrams

  tab <- table(trigrams)/sum(table(trigrams))
  proportion[j] <- tab[2] # records N-notN-N proportions in all 100 samples
}

mean(proportion)
```

The confidence interval used here was the BCa interval, which has the widest currency in bootstrapping (cf. Crawley 2007: 322).

These proportions differ decisively from the proportion expected for three-party narrative (viz. 17%, cf. Rühlemann 2013: 82) six-party (3%), and seven-party (2%) narrative (with the proportions obtained again from simulations in R).

In the BNC and, hence, the NC, simultaneous speech is rendered as if occurring consecutively. For example, if two distinct speakers backchannel at the same time, the responses are placed one after the other.

For 3-party narrative the underrepresentation of double-responses was also demonstrated in Rühlemann (2013). In the present samples of 5-party narrative, the expected (0.15) and observed (0.11) proportions differ too, albeit not significantly (that is, the expected proportion lies narrowly within the BCa CI of 0.070 and 0.155). The non-significance of the result may be due to the lower number of 5-party stories available (viz. 17).

Note, however, that the N-notN-N pattern seems to be negatively correlated with the number of turns per story; that is, as the number of trigrams per story increases, the number of N-notN-N trigrams decreases (Rühlemann 2013: 87).