



Turn order and turn distribution in multi-party storytelling

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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 *Saarbrücken Corpus of Spoken English* (SCOSE) containing American English 4- and 5-party stories and the *Narrative Corpus* (NC) containing British English 4- to 7-party narratives, as well as the conversational component of the *British National Corpus* (BNC). The analysis is decidedly quantitative and statistical in orientation. Specifically, we are concerned with turn order and turn distribution in conversational multi-party narrative. The aims are twofold. We wish 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 we refer to as the N-notN-N pattern. We further investigate whether individual speakers' turntaking styles have an impact on turn distribution, a measure intimately related to turn order. Moreover, given the structural differences in the data at hand (the SCOSE being raw-text, the NC being densely annotated) we employ largely different methodologies particularly in addressing turn order. The results on turntaking styles suggest that this factor cannot 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.

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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,

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Schiffrin, 1996, Bamberg, 2004a,b) and in terms of its claimed ubiquitousness in conversation (e.g., Labov, 1997, Ochs and Capps, 2001, Norrick and Neal, 2015). It has been extensively researched in discourse analysis, where it is “one of the most developed areas” (Schiffrin, 1984:314). While Labovian ‘big’ stories concerned with danger-of-death experiences elicited in socio-linguistic interviews (Labov, 1972) have long dominated the analytical scene, a “second wave of narrative analysis” (Georgakopoulou, 2006a:123) has moved ‘small’ stories center stage, that is, stories “situated in small-talk, chit-chat” (Bamberg, 2004a:368) and concerned with “under-represented narrative activities, such as telling of ongoing events, future or hypothetical events, shared (known) events, but also allusions to telling, deferrals of telling, and refusals to tell” (Georgakopoulou, 2006a:123; see also Bamberg, 2004a,b, 2006; Georgakopoulou, 2006b). Consequently, narrative research has discovered the enormous typological breadth that storytelling covers, depicting storytelling as a multi-generic activity and considering “narrative genre as a continuous cline, consisting of many sub-genres, each of which may need differential research treatment” (Ervin-Tripp and Küntay, 1997:139; see also Norrick, 2000, Rühlemann, 2013). In a “third wave” (Georgakopoulou, 2006a:125), the focus of attention has shifted to storytelling as ‘identity work’ (Bamberg, 2006:146), that is, to storytelling as a prime context in which “identities can be inflected, reworked, and more or less variably and subtly invoked” (Georgakopoulou, 2006a:125; see also Bamberg, 2004a,b, 2006; Thorne, 2004; Kraus, 2006; Georgakopoulou, 2006b, 2008; Gregg, 2011). Another strand of narrative research that has seen a surge of interest is the question of authorship. Based on the observation that “the content and direction that narrative framings take are contingent upon the narrative input of other interlocutors, who provide, elicit, criticize, refute, and draw inferences from facets of the unfolding account” (Ochs and Capps, 2001:2–3) broad agreement suggests that authorship is essentially shared between participants (see, for example, Goodwin, 1986a,b; Shuman, 1986; Norrick, 2000; Rühlemann, 2013). A large body of narrative research emphasizes the co-construction of narrative. In this, emerging, tradition, storytelling in conversation is defined as “an interactionally collaborative achievement” (Ryave and Alan, 1978:131; see also Duranti, 1986, Goodwin, 1986b, Schegloff, 1997, Holmes and Stubbe, 1997, Norrick, 2000, Ochs and Capps, 2001, Rühlemann, 2013).

Conversation Analysis, too, has been concerned a great deal with storytelling (e.g., Sacks, 1992). As regards turntaking, Conversation Analysts have long observed that turntaking in storytelling is distinct from turntaking in ordinary conversation. Goodwin and 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 investigate the extent and the ways that ordinary turntaking is suspended and replaced by narrative-specific turntaking in storytelling in every-day conversation. The focus of our investigation will be on turn order and turn distribution, two intimately associated turntaking measures. 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).

It is important to make clear from the outset that, given the intricacies of the corpus data exploited and the complexity of the statistical methods deployed, some of the remarkable nuance that discourse-analytical narrative research is capable of will have to be sacrificed.¹ For example, while we perfectly acknowledge the fact that the narrator-recipient relationship is far from being simply dichotomous but, at best, more adequately described as “asymmetrical, with tellers having a greater share in authorship than the recipients” (Rühlemann, 2013:2) we will retain, for the most part of the paper, a simple distinction between narrator and recipient. However, we note that this distinction is of a terminological nature introduced for practical purposes, namely to keep track of main tellers and co-tellers as they take their turns at contributing to the unfolding story. Also, we have decided against attempting to account for variation by narrative sub-genre (although the annotation of one of the corpora used, viz. the Narrative Corpus (see below), does allow sub-genres to be treated differentially) but will instead concentrate on personal-experience stories (both first-person and third-person, or vicarious experience stories). Personal-experience stories not only occur by far most frequently in our data but are also commonly seen as the prototypical narrative type.

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

¹ As an anonymous reviewer argued, “the degrees of co-authorship of a story can vary dramatically across tellers and contexts and that there is systematicity in terms of how a story is introduced into a multi-party conversational context and subsequently told, on the basis of audience complexity and participation modes (e.g. knowing vs. non-knowing recipients, principal, ratified audience, etc.)”

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: 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-constructive units forming an extended turn (cf. [Goodwin and 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 produced by the narrator during the course of storytelling 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 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 and Alan, 1978](#), [Blum-Kulka, 1993](#), [Schegloff, 1997](#), [Ochs and Capp, 2001](#)). Conceptualizing stories as multi-turn units is hence the necessary adjustment if stories are conceptualized as co-constructed. These considerations as well as practical constraints have led us to treat ‘turn’ and ‘utterance’ as if they are co-synonymous.²

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. (Note that a premise of this observation is the assumption that one and the same speaker cannot have two adjacent turns.) 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.

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 Another complicating matter we could not take into account is overlapping speech.

(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,
- 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 fourth 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, that is, successions of three turns with each new trigram starting with the middle turn of the previous trigram. 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:

In a four-party narrative, a broad range of distinct trigrams are conceivable (altogether, as many as 36). Contrary to this range, only five distinct trigrams are realized, falling into two *major types*, 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 accounts for 50% of the trigrams in the text (just as, inevitably, the notN-N-notN pattern does). This proportion for the N-notN-N pattern 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 in four-party narrative would have to be much smaller than 50% (viz. 8%, see below). The pattern’s overrepresentation in (2) might hence not be by chance. Rather, the pattern’s prevalence might be such that its occurrence is *predictive* of storytelling (that is, is significantly raising the odds that the text in which it repeatedly occurs is a story).

Table 1
Turn trigrams in “Stew”.

Turns	Trigram
1-2-3	N-R ₁ -N
2-3-4	R ₁ -N-R ₂
3-4-5	N-R ₂ -N
4-5-6	R ₂ -N-R ₂
5-6-7	N-R ₂ -N
6-7-8	R ₂ -N-R ₂
7-8-9	N-R ₂ -N
8-9-10	R ₂ -N-R ₂
9-10-11	N-R ₂ -N
10-11-12	R ₂ -N-R ₂
11-12-13	N-R ₂ -N
12-13-14	R ₂ -N-R ₁

Indeed, as regards narrative in three-party conversation, Rühlemann (2013) found that the proportions of the N-notN-N pattern were significantly greater than expected. The study, however, is preliminary in at least two respects. First, the only type of multi-party storytelling investigated was storytellings with exactly three verbal participants. 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. That is, it did not examine the potential influence exercised by variation in individual speakers' habits of turntaking, with some speakers *generally* taking more, and others taking less turns in conversation. Such variation is likely to 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' turntaking styles 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', they will inevitably have a higher turn share during the storytelling than any one recipient. For example, in (2), where a total of 14 turns are taken, the narrator's return to the 'floor' in every third slot effectively means that her turn share is $^7/_{14} = 0.5$, whereas the proportions for R_1 , R_2 and R_3 are merely $^2/_{14} = 0.14$, $^5/_{14} = 0.36$ and $^0/_{14} = 0.0$ respectively. 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 toward the one participant who is the narrator, leaving the recipients more and more disadvantaged in terms of average turn share. 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 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 turntaking style, it might be turntaking mechanisms inherent to storytelling as such, or 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 take into account the 'linguistic individual' (Johnstone, 1996) and determine the extent to which their turntaking styles influence turn distribution in storytelling.

In the present paper, we aim to address these issues. First, we investigate the extent to which turntaking styles impact 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

We used three corpora: the conversational subcorpus of the *British National Corpus* (BNC) (cf. Hoffmann et al., 2008), the *Narrative Corpus* (NC) (cf. Rühlemann and O'Donnell, 2012), and the *Saarbrücken Corpus of Spoken English* (SCOSE) (cf. Norrick, 2000). Crucially, the NC is derived from the BNC. That is, all the texts in the NC, as well as the meta-information associated with them, were extracted from the BNC thus allowing us to track speakers' turntaking behavior in either corpus.

While the BNC is a large general corpus whose conversational component alone has more than 4 million words, the two other corpora are specialized, containing narrative data, and small. The SCOSE comprises conversational stories told in American English and features no annotation, the NC assembles stories extracted from the conversational component 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 and O'Donnell, 2012), which was crucial for the present research. Among the NC's various levels of annotation, the above-mentioned markup of participant role was of special relevance for this study.

The NC's annotation distinguishes two broad types of participant roles – narrator and recipient – as well as six subtypes (the leftmost character P in the tags signifies 'Participant role'):

- PNP³: the Primary Narrator, the main teller, observably the telling's 'driving force' (with the second P standing for primary);
- PNC: the ratified Co-Narrator, a participant with privileged knowledge of story events but remaining in a supportive role vis-à-vis the main narrator (C for Co-);
- PNU: narrators doing the telling single-handedly without any contribution from the audience (U for unsupported);
- PNS: narrators receiving only minimal support in the form of backchannels (S for supported);
- PRR: the Responsive Recipient, a story recipient responding to the storytelling in progress by means of listenership tokens ('backchannels') thus signaling 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, 1986a).

We acknowledge that all subroles may interact with turn order and turn distribution. However, in the present study taking all subroles into account as variables in their own right was far beyond our aims. To keep the analyses manageable (and keep this report at least within some limits) the narrator and recipient subroles were conflated to narrator and, respectively, recipient *tout court*, with Co-Narrators (PNC) counting among recipients. We hope to make more full use of all available subroles in future studies.⁴

The means deployed to retrieve more-than-three-party narratives from SCOSE and NC were different. 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 et al., 2015). 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 fact that the NC does not only contain stories (the narrative component) encapsulated within <seg>-elements but also the surrounding conversational contexts both before the storytelling event (pre-narrative component) and after it (the post-narrative component). All three macro-components are subsumed within a <div>-element.⁵ To determine the number of

³ Following common practice (cf. Leech, 1997), tags in the NC invariably consist of three characters, in descending order of categorical specificity. The character to the left designates the category as such which the annotation is intended to capture; for example, P for participation role, C for textual component etc. The middle character is already more specific denoting the first sub-category, for example, PN for participants acting as narrator, CP for components which are not the narrative proper (pre- or post-narrative). The character to the right, finally, designates the most specific level of annotation; for example, PNP for participants acting as primary narrator, CPO for post-narrative components occurring after the sequence of events has been related.

⁴ Following a comment by an anonymous reviewer, we would like to note the possibility that a substantial number of trigrams diverging from the N-notN-N pattern might be accounted for if stories with interventions by ratified co-narrators were separated out; in the current data set the number of turns by ratified co-narrators is so small, however, that their actual statistical effect will be negligible.

⁵ <seg> and <div> elements are commonly used in XML documents to encapsulate smaller textual segments (<seg>) and larger textual divisions (<div>) respectively.

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 provides mark-up for story beginnings and endings, these boundaries had first to be introduced to the texts in the SCOSE. In determining the 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 (3) 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

3	Brandon	N	I was in New York a couple of months ago
4			and I was seeing a show called M. Butterfly
5			with John Litgow in it.
6			it's gotten pretty good uh reviews
7			and one of the people in the crowd to see this show
8			and to see John Litgow was Jack Nicholson.
9	Lydia	R ₁	uh.
10	Claire	R ₂	o:o:h

(...)

As regards the boundary issue in story rounds, consider example (3). Inspection of the text entitled "Poodle" suggests a division into two 'parallel story episodes' (Ochs and 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

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

Story 2: Poodle II

20	Lynn	PNP	Jennifer
----	------	-----	----------

21 the first time Jennifer had a perm
 22 when she came home.
 23 it was the funniest thing.
 24 Jean PNC she had put something on her head
 25 a bag or something?
 26 Lynn PNP she wore her-
 27 Annie PRR ((laughs))
 28 Lynn PNP well she wore her-
 29 Helen PNC “hair ball, hair ball”
 30 yeah.
 31 because she-
 32 Annie PNC she just always had this HOOD on.
 33 and she ran right upstairs
 34 Lynn PNP NO.
 35 FIRST she THREW her bag up the stairs
 36 almost HIT me.
 (...)
 (SCOSE)

The two SCOSE examples highlight two more relevant aspects. 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 fourth 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 and 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 increase in number of participants (n) and decrease in the number of stories identified in both corpora may be a reflection of the preference of the turntaking system for smaller numbers of participants (Sacks et al., 1974:701).

Given the above-mentioned stark differences between the NC data and the SCOSE data, it will be obvious that the two data sets 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 the influence of individual turntaking styles outside of storytelling on turn distribution and turn order in storytelling. 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, turntaking styles outside of narrative could not be investigated in this corpus. The NC, on the other hand, does offer both narrative data (contained in the narrative components) as well as, to an extent, non-narrative data (contained in the components preceding and following the stories). However, these non-narrative components were generally far too small (the maximum number of utterances in any such component is set to 15) thus failing to provide data in sufficient quantity and disallowing reliable testing; also, non-narrative turntaking in immediate proximity to narrative turntaking could be influenced by the latter.

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

	4-Party		5-Party		6-Party		7-Party		Totals	
	Stories	Turns								
NC	23	384	12	175	3	30	4	59	42	648
SCOSE	14	239	5	59	0	0	0	0	19	298
Totals	37	623	17	234	3	30	4	59	61	946

To obtain adequate comparative data, we took advantage of the unique relationship between the NC and its mother corpus, the BNC. Given that, as noted, the NC is derived from the BNC, the speakers in the NC are also speakers in the BNC. Thus, using the unique speaker IDs attached to the utterances in either corpus, the speakers tagged in the NC as narrators could be targeted both in the multi-party narrative texts in the NC and in those files in the BNC from which the NC texts had been extracted. Using, again, the XQuery technology, almost 70,000 turns were extracted from the BNC.⁶ Further, to pair this ‘new’ BNC data with the ‘old’ NC data and set it up for analysis, the following steps were taken:

For each NC narrative:

- (i) Identify in the BNC data the <div> element in which the NC narrative occurred
- (ii) In that BNC <div>, identify the turns belonging to the NC narrative
- (iii) Transfer the annotation of participant roles for that narrative from the NC data to the BNC data
- (iv) Identify the number of distinct participants in the BNC <div>⁷
- (v) Identify *all* <div> elements in the BNC data with that same number of participants and the same NC narrator
- (vi) Browse these <div> elements to identify and mark ‘new’ narratives told by the NC narrator as primary narrator

While step (v) (identifying all <div>s with the same number of participants as in the NC narrative) led to a drastic reduction of the number of turns subjected to further analysis, step (vi) (browsing the relevant <div>s for more narratives told by the NC narrator) led to a substantial increase in the number of narratives available for analysis: the 42 ‘old’ NC narratives were complemented by 132 ‘new’ BNC narratives, producing a hybrid dataset, which we label B/NC, with a total of 174 stories consisting of at least five turns.

Further, the differences in data structure between SCOSE and the B/NC determine different paths to addressing the question of the N-notN-N pattern’s predictiveness. In the B/NC, predictiveness can again be approached comparatively, by taking turn order patterns observed outside of narrative as a backdrop against which to assess turn order patterns observed within narrative. 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.⁸

2.2. Statistical analysis of turntaking styles

In order to explore the degree to which the turn share of the primary narrator in narratives is higher than expected from their turn share outside of narratives, we calculated two critical measures:

- (i) the NC narrator’s turn share *inside* each ‘new’ (BNC) and ‘old’ (NC) narrative (number of turns taken by NC narrator divided by total number of turns per narrative) and
- (ii) the NC narrator’s ‘baseline turn share’, i.e., his/her turn share *outside of* ‘old’ and ‘new’ narratives (number of turns taken by NC narrator divided by total number of turns outside of ‘old’ and ‘new’ narratives)

To illustrate, for speaker “PS01U” in narrative 14 in BNC file KB2, we determined the following figures:

- that narrative has 26 turns;
- in that narrative, PS01U has 13 turns as PNP, i.e. $13/26 = 0.5 = 50\%$ turn share;
- in that file, speaker PS01U has 1303 turns outside of his own narratives;
- in that file, all speakers together have 4672 turns outside of PS01U’s narratives; thus, his baseline turn share is $1303/4672 \approx 0.2789 = 27.89\%$.

⁶ The data was extracted as follows:

- (i) Identify speaker IDs of NC narrators (via their PNP tag)
- (ii) Extract from the BNC all conversational segments (identifiable via their <div> elements) where a total of at least 100 turns were taken by the NC narrator and at least three more distinct participants (thus excluding two- and three-party conversations)

⁷ The number of participants per BNC <div> was at times *larger* than the number of participants identifiable via the NC <div> elements. This is simply due to the fact that NC extracts are relatively short featuring smaller numbers of turns taken and hence potentially smaller numbers of participants taking any turns at speaking in that segment.

⁸ 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.

Then, we computed an exact binomial test to determine the probability of, here, PS01U having 13 or more out of 26 turns in narrative 14 if his general turn share was 0.2789. In this case, the binomial test returns a p -value of 0.01381, indicating that PS01U's turn share in that narrative is significantly higher than his baseline turn share outside of narratives. Analogous computations were done for all other PNPs in the B/NC narratives.

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 B/NC and the SCOSE data. The analysis begins with the B/NC data.

2.3.1. Predictiveness in the B/NC

In order to explore the degree to which N-notN-N sequences are predictive of narrative sequences, we used a variety of R scripts. First, we determined for every narrative sequence (with 5 or more turns) an N-notN-N ratio, which consists of the number of N-notN-N sequences in the narrative divided by the number of trigrams of the narrative. For example, the narrative “Bill's operation” consists of 19 turns and, hence, 17 trigrams and has 9 N-notN-N trigrams for PS01U acting as the primary narrator PNP; thus, the ratio, stored in a variable called *ins*, is ${}^9/_{17} \approx 0.5294$.

Second, we determined for each NC narrator the numbers of times the same turn order pattern occurred outside of his/her narratives. 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 further determined for every NC narrator an n-notn-n ratio, which consists of the number n-notn-n sequences (s)he was involved in divided by the number of non-narrative trigrams in the same file. For example, speaker PS01U is involved in 968 n-notn-n sequences in that file, which has 4292 non-narrative trigrams; thus, this ratio, stored in a variable *outs*, is ${}^{968}/_{4294} \approx 0.2255$.

This procedure was repeated for every narrative with five or more turns. In the final evaluative steps, we then performed two statistical analyses, one simple, one more advanced. As for the simple analysis, we computed the pairwise differences between *ins* and *outs*, and tested them with a Wilcoxon test for dependent samples. Our expectation was that the differences would be significantly greater than zero, which would indicate that narrators are more likely to be involved in N-notN-N sequences than in n-notn-n ones, which in turn means that N-notN-N sequences are predictive of narratives. We also represented this visually by plotting *outs* against *ins*: If N-notN-N sequences are predictive of narratives, then the majority of points should be in the lower right triangle of the plot.

The second statistical analysis is more advanced in two ways. First, it is a more rigorous test of the predictive power of N-notN-N sequences for narratives because it involves a regression model determining to what degree one can predict whether sequences of turns will be narratives or not if one knows the relative frequency of N/n-notN/n-N/n sequences. Not only is this the most-to-the-point test of our hypothesis, but the regression context also allows us to take the exact nature of the data more into consideration than the more traditional kind of non-parametric test above. Specifically, we used a generalized linear mixed-effects model, which allows us to include in the analysis not only potential idiosyncrasies of speakers but also potential idiosyncrasies of files (into which the speakers are nested, since each speaker occurs only in one file): we included varying baselines/intercepts and effects of ratios/slopes for speakers nested into files, a level of resolution that is still rare in corpus-linguistic work (see Gries, 2015 for an introduction to generalized linear mixed-effects models and Gries and Deshors, 2015 for a recent application). The resulting regression model was then evaluated with regard to its classification accuracy.

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).⁹ 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.

⁹ 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 proportion of N-notN-N trigrams out of all 9998 trigrams was calculated. This procedure was repeated 100 times and the mean proportion of N-notN-N trigrams was computed for all 100 simulations.¹⁰

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 and Duval, 1993:9; for a more detailed description and application in corpus linguistic research see Rühlemann, 2013:148–151). 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:¹¹ if the expected proportion comes to lie *outside* this interval, the difference can be confidently considered significant.

3. Results

3.1. How do turntaking styles correlate with the narrator’s turn share in storytelling?

The results with regard to narrators’ turn shares are depicted in Fig. 1., where, for each speaker (on the y-axis), the turn shares in percent of turns are represented on the x-axis; the pipe “|” indicates each speaker’s turn share outside of narratives, while the asterisks and the small circles indicate the speaker’s turn shares in narratives (asterisks for significantly different ones than the baseline turn share outside of narratives and circles for the non-significantly different ones).¹²

First, the results shown in Fig. 1 reveal considerable variability between as well as within speakers/narrators. For example, for the two most active turntakers outside of narratives, speakers PS51F and PS532, where the baseline turn share is highest, the turn share differences inside narratives are insignificant; contrarily, the turn shares for the most reticent turntakers outside of narrative, speakers PS6RA and PS0GP, where the baseline turn share is the lowest, see dramatic significant increases inside of their own narratives. Further, in nearly all narratives, 169 out of all 174 narratives (i. e., 97.12%), the primary narrator has a higher turn share than he/she has outside of narratives (the five exceptions being those speakers where the small circle sits to the *left* of the pipe). In addition, in the five narratives in which the primary narrator has a lower turn share than outside of narratives, this difference is not significant (all $ps > 0.6$). Finally, for 81 of the 169 narratives with PNPs that have a higher turn share in their narrative than elsewhere (i.e. 47.93%), the turn share difference is significantly higher than elsewhere (represented, as noted, by asterisks).

To fully appreciate what these results mean, some additional information is needed. First, the fact that narratives have a higher PNP turn share than non-narratives in nearly all cases is quite a clear result in and of itself (and indeed highly

¹⁰ 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.

```
set.seed(123)
turns <- c("R1", "R2", "R3", "N") # labels for participants
proportion <- c()
for (j in 1:100) { # loop to repeat the sampling procedure 100 times
  path <- c()
  path[1] <- sample(turns, 1, p=rep(1/4, 4)) # turn 1: p=1/4 for each participant
  for(i in 2:10000){
    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)
```

¹¹ The confidence interval used here was the BCa interval, which has the widest currency in bootstrapping (cf. Crawley, 2007:322).

¹² Turn shares can exceed 0.5 if the number of turns in a story is uneven and if the first turn is taken by the narrator. Example:

N, R1, N, R2, N

Here, a total of five turns contrast with three turns by N, the ratio is $3/5 = 0.6$.

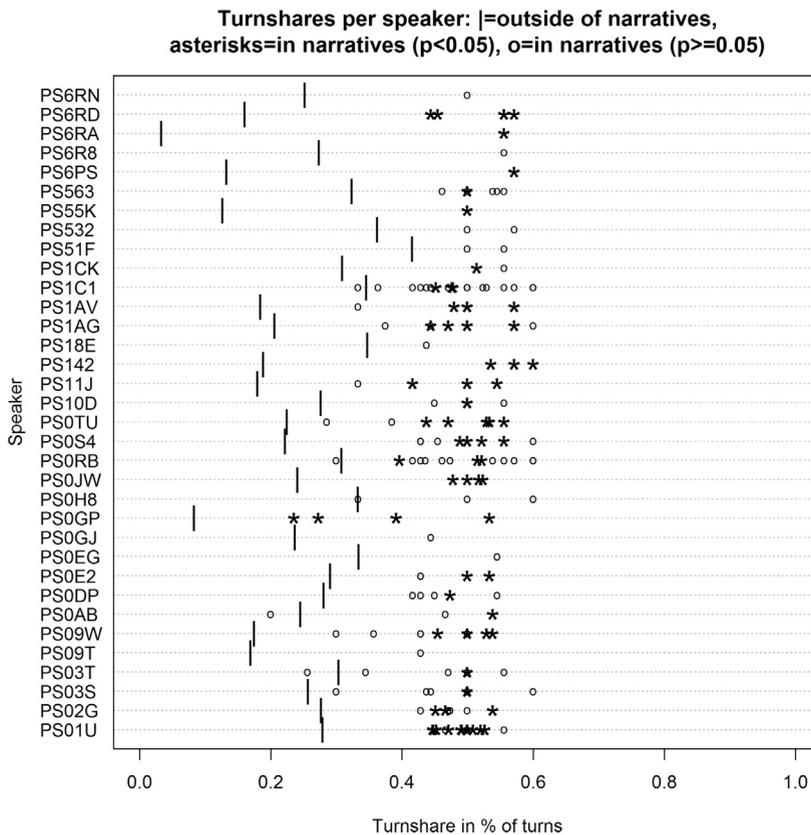


Fig. 1. Turn shares per speaker (on the y-axis) as a proportion of turns (on the x-axis); | : turn share outside of narratives; o : non-significant turn share difference in narrative; * : significant turn share difference in narrative.

significantly more than expected by chance; $p < 10^{-43}$). Second, the fact that this higher turn share is significantly higher in 'only' 47.93% of all cases needs to be seen against the backdrop that such p -values reflect two pieces of information: effect size and sample size.

Given the fact that the median narrative length is only 14.5 turns in this sample (and that 75% of all narratives are shorter than 22 turns), this means that the sample sizes for the binomial tests are nearly always quite small, which is why getting significant results nearly half of the time is in fact quite a 'vote of confidence'.

In sum, there is convincing evidence that primary narrators' turn share in conversational narratives is higher than the same speakers' turn share elsewhere.

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

3.2.1. Results from the B/NC

The results are remarkably straightforward and represented in Fig. 2. The x-axis represents the numbers of times that N-notN-N sequences were attested in a narrative in the B/NC data; the y-axis represents the numbers of times that n-notn-n sequences (as defined above) were attested outside of narratives; each plotted number is one conversation with the number representing the number of all verbally active participants in the conversation, including both narrators and recipients (note that these numbers vary between two and seven; we will return to this important observation in the discussion section); 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 stories, 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. This is indeed the case: In the vast majority of the narratives, namely 161 out of 174, the N-notN-N ratio is larger than the n-notn-n ratio and a paired Wilcoxon test indicates that the overall pairwise differences (mean = 0.24, median = 0.25) are highly significantly larger than 0, indicating a clear tendency of N-notN-N sequences to be predictive of narratives.

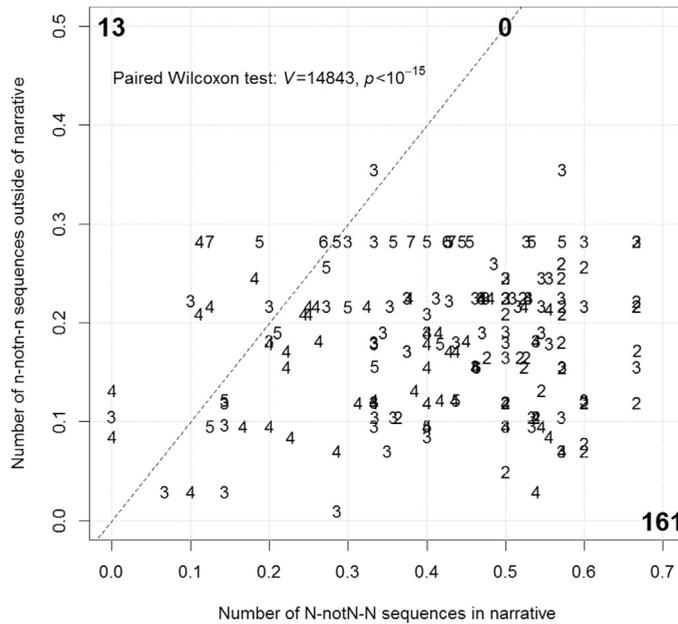


Fig. 2. Scatterplots of N-notN-N trigrams in narratives vs n-notn-n trigrams outside of narratives.

Even more persuasive are the results of the generalized linear mixed-effects model, the numerical results of which are shown in Table 3. The regression indicates that the observed ratios of N/n-notN/n-N/n significantly and strongly distinguish between narrative and non-narrative sequences: a 0.1-unit increase in the ratio corresponds to a 7.44 increase in the odds of the relevant text part being a narrative; the model’s marginal R^2 (the R^2 -value ignoring the random effects) is 0.687, the model’s conditional R^2 (the R^2 -value including the random effects) is 0.801, and the model’s classification accuracy is 88.8%, which is highly significantly better than chance.

The nature of this regression model is then also visualized in Fig. 3, which has the independent variable of ratio on the x-axis and the predicted probability of a sequence belonging to a narrative on the y-axis; individual data points are indicated with the rugs at the top and bottom (green and red for correct/incorrect model classifications).

The curved line with the gray confidence interval indicate that, the higher the ratio of N/n-notN/n-N/n, the higher the probability that this happens within a narrative. Note in particular the many different thin regression lines, each of which captures the behavior of one speaker.

In sum, both the more simplistic results of Fig. 2 and the more sophisticated results given in Table 3 and Fig. 3 indicate that there is quite some variability in the data but that there is also a clear patterning. The more traditional and still extremely widespread approach of simply collapsing all the data and ignoring the structure the data come in (repeated measurements for narrators, who are in turn nested into files) shows that narratives and other environments differ significantly in their percentages of N/n-notN/n-N/n sequences. The more sophisticated approach not only is a better test of the predictive power of these percentages – does just knowing the percentage already allow us to distinguish narratives from non-narratives? Yes – but it is also the one that respects the internal structure of the data by accounting for speaker- and file-specific idiosyncrasies in a way that the traditional ways of significance testing do not. In addition to that being the statistically correct way, our multi-level modeling approach also provides clear evidence of how much such speaker-

Table 3
Overview results of the regression analysis.

Fixed effects	Regression coeff.	Standard error	z	P
Intercept	-5.265	0.849	-6.202	<0.0001
Ratio	20.062	3.542	5.658	<0.0001
Random effects	Variance for speakers nested into files		Variance for files	
Intercept	4.243		0.023	
Ratio	43.07		7.552	

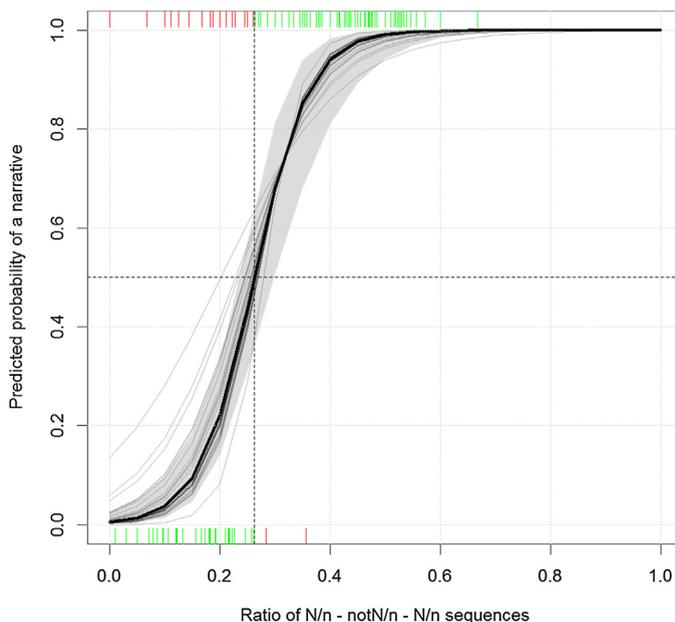


Fig. 3. The effect of N/n-notN/n-N/n ratios on whether sequences are narrative or not.

Table 4

Observed and expected proportions of N-notN-N trigrams in 4- and 5-party narrative in SCOSE.

	4-party stories	5-party stories
All trigrams	211	49
N-notN-N trigrams	57	16
Observed proportion N-notN-N	0.27	0.33
Expected proportion N-notN-N	0.08	0.05

specific variation there is and, thus, how important it is to include such information in order to avoid interpreting mere speaker-specific idiosyncrasies as theoretically important patterns in the data. Reassuringly, while there is much speaker-specific variation (as might be expected given that the results from our exploration of turn share also pointed to such variability), there is little systematic variation between files (as might be expected given that files are not a linguistically or individually relevant unit). In the next section, we will explore the predictive power of N/n-notN/n-N/n sequences in the SCOSE data.

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 4.

The observed proportions clearly differ from the expected proportions.¹³ 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 Fig. 4. 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 3 above).

¹³ 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).

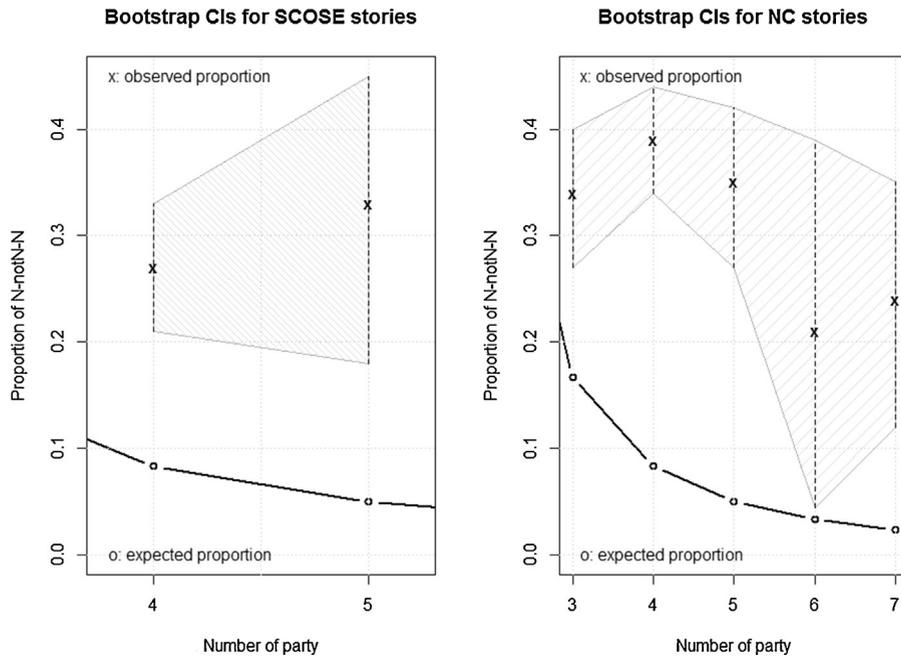


Fig. 4. Bootstrap confidence intervals (CIs) for proportions of N-notN-N trigrams in SCOSE stories (4- to 5-party; left panel) and NC stories (3- to 7-party; right panel).

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, Fig. 4 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 turntaking style 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. Turntaking style

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 third turn, from a first, and hence inevitably 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 hypothesized that speakers acting as narrators have higher turn shares than when acting as normal speakers in non-narrative conversation. The evidence we found clearly supports this hypothesis. In virtually all narratives the narrator's turnshare was higher than outside of the narratives (while in the handful of cases where it was lower, this difference was insignificant). In almost half of all stories the narrator's turn share was *significantly* higher than outside of narrative. This result may, at first sight, look disappointing

(inviting skeptics to emphasize that in the other half of the data the turnshare rise was *insignificant*). As already noted, the 50%-result is in actual fact a strong result considering that the median turn length of narratives was 14.5 turns and that the significant results were thus obtained from very small samples sizes. The results, then, suggest that turntaking behavior is not independent of generic activity but correlated with the conversational sub-genre at hand: turn shares increase when speakers take on the role as narrator in storytelling and decrease when speakers are not acting in that discourse role. Moreover, these findings related to turn distribution have important implications for the turn order pattern in question. They imply that turntaking style does not have predictive power for the increased distribution of turns toward the narrator in storytelling. The gain in turn share for narrators cannot be explained by individual speakers' dominant turngrabbing behavior; it 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 turntaking style, it seems permissible to conclude that individual turntaking styles do not cross sub-genre 'borders' but stop there and accommodate to patterns relevant to that narrative sub-genre.

4.2. Predictiveness of N-notN-N

The results for the predictiveness of the N-notN-N pattern are straightforward and offer intriguing implications for turntaking in storytelling. Both datasets in which the pattern's predictiveness was examined (B/NC and SCOSE) 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 needs to be put into perspective for conversational narrative. Here, turn order is predictable in the sense that it is biased toward the narrator, who is granted control of 'every third slot, from a first'; likewise, turn distribution is biased toward 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, the turn-order bias in conversational narrative is not "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. That only *one* recipient turn should come in-between narrator turns 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 overlap¹⁴) 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-R₁-R₂. In other words: the overrepresentation of N-notN-N is inevitably correlated with the underrepresentation of N-R₁-R₂. What this means becomes clearer if we consider Fig. 5, which represents participational schemas for the N-notN-N turn order for 3- to 7-party narrative.

As is illustrated in Fig. 5, 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 to be shared between them, labeled "R" in Fig. 5, creating a turntaking constraint not dissimilar to a 'bottle-neck' and illustrating that, in essence, the turn order system for multi-party storytelling is, like conversation as a whole, "built for two" (Stivers, 2015).

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 two-party talk, with merely two alternating slots available. This finding can be seen as strong evidence to support Stiver's (2015) observation that conversation is structurally biased toward dyadic interaction. That the default turn order in multi-party

¹⁴ 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.

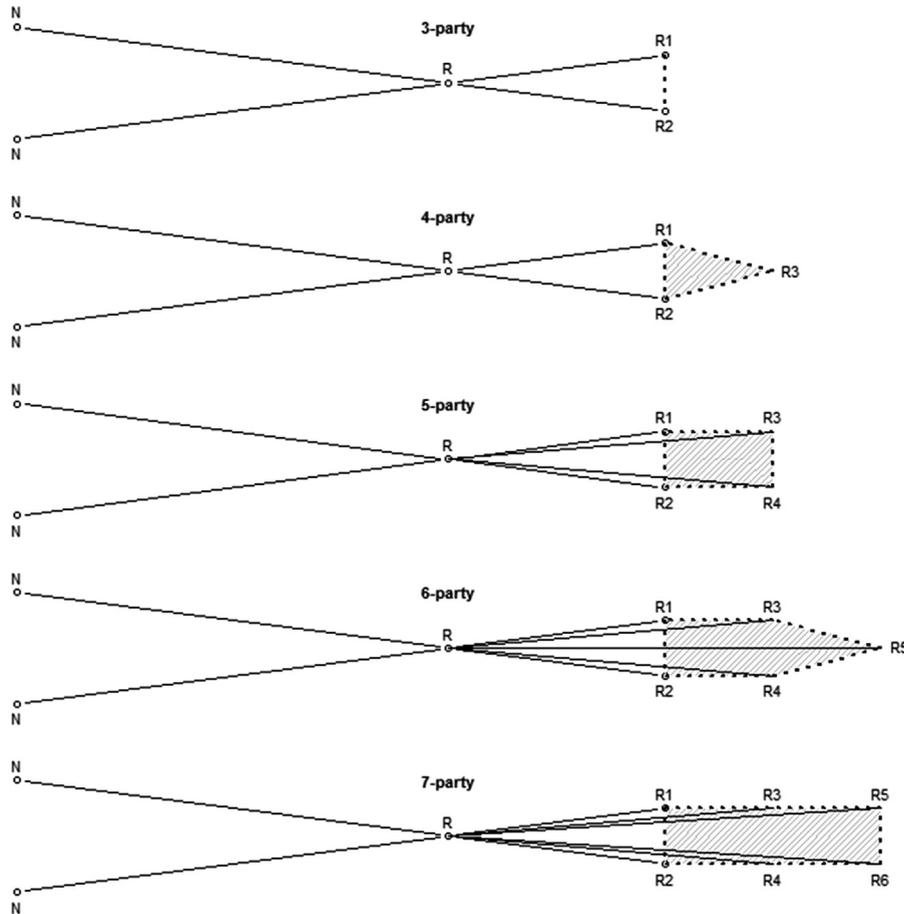


Fig. 5. Participational schemas for the N-notN-N turn order for 3- to 7-party narrative.

storytelling is essentially that of two-party interaction can also be more fully appreciated if we distinguish 'party' and 'person'. While 'person' refers to each participant seen as an individual, 'party' describes a more complex and variable unit of social interaction: individual participants may form a party not only because of extra-interactional ties between them (as couples, family, witnesses, etc.) but also because of more ephemeral ties emerging from momentarily current intra-interactional contingencies and conduct (Schegloff, 1995:33). The activity of responding to a storytelling may constitute precisely such an interaction-specific contingency by which recipients, whatever their number as individuals, are momentarily fused into one party interacting dyadically with the 'other' party, the teller of the story.

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 two of them are heavy 'turn-takerists' used to 'butt in' wherever possible – how likely is the occurrence of double-responses? Quite likely; it is even if all recipients are reticent turntakers. 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) in the NC 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, an interval which excludes the expected proportion of 0.17. The difference between the expected and the observed proportions is hence significant.¹⁵ The critical question arising from this observation is what

¹⁵ 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).

techniques are used to allocate this single-recipient turn and to ensure that double-responses are avoided. Using [Norrick's \(2008, 2012\)](#) terminology, it could be asked how narrators 'modulate' recipient responses in such a way as to achieve that avoidance. To answer these questions Sacks et al.'s notion of turn-order bias, whereby "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,¹⁶ a strictly local perspective must be inadequate. Indeed, it is even questionable whether the mechanisms 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 ensure 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. Interactional patterns similar to what we term here the 'spokesperson technique' have been observed for question-answer adjacency pairs where second-pair parts were provided by single-respondents although several co-participants were epistemically eligible as respondents; cf. [Stivers \(2015\)](#) and [Stivers and Robinson \(2006:377\)](#). The effect of the 'spokesperson technique' is undoubtedly an "economy of listening" ([Rühlemann, 2013:90](#)) adding to, and instantiating, the 'economy' which, according to Sacks et al., shapes the organization of turntaking as a whole (1974:701). The spokesperson technique fully satisfies the expectation "that, like other economies, its organization [the organization of turntaking] will affect the relative distribution of that which it organizes" ([Sacks et al., 1974:701](#)). Its relevance 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. Also, on a more general level, this economy can be seen as a correlate of the importance placed by interactants on 'progress' of talk in interaction ([Schegloff, 1979](#)) and 'progressivity', where "interactants are concerned with advancing in-progress activities through sequences" ([Stivers and Robinson, 2006:386](#)).

It is further hard to imagine that this tacit agreement is implemented without all recipients actively attending 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 nominate the spokesperson and to avoid double-responses in the spokesperson slot is yet unclear. That there is a pressing need for mutual monitoring among recipients is suggested by the fact that the single-response slot is by no means occupied by one and the same participant throughout the storytelling event as a whole. As was shown in [Fig. 2](#) above, where the plotted numbers represented the number of *verbally active participants* in the narratives, that number oscillated between two and seven participants. Considering that one of them is the narrator, there were, then, narratives where as many as six recipients took turns during the storytelling sequence.¹⁷ [Fig. 2](#) also showed that among the 161 stories where the N-notN-N ratio was greater than the n-notn-n ratio (depicted in the bottom right triangle of the figure) the same variation between two and seven participants could be found. Indeed, the number of multi-party stories with significantly greater N-notN-N shares and the same participant filling the single-recipient slot throughout the sequence was small, accounting for only 1/7; the great bulk of these stories see two and three recipients sharing the slot over the sequence. This is, then, clear evidence that, in a sequential perspective, single-recipient slots are taken by more than a

¹⁶ 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](#)).

¹⁷ For illustration, re-consider the text "Poodle II", where two recipients take turns at filling the single-recipient slot.

single participant. In other words, multi-party storytelling is ‘serially dyadic’ (Stivers, personal email communication): recipients take turns becoming the spokesperson thus entering into series of dyadic interaction with the narrator.

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. There may be in operation a *Recipient-Subsystem* intersecting and interacting with the *Narrator-Recipient System* but still, to an extent, operating on its own terms. What (non-verbal) means recipients deploy to implement their turntaking at the single-response slot and to what extent this turntaking sub-system operates independently of the Narrator-Recipient System are exciting questions meriting future investigation. It appears likely that eye gaze, by far the most dominant means for selecting next speakers among multiple individuals (Stivers, 2015), will be key among the means used.

5. Concluding remarks

The investigation into turntaking style reported in this study may have implications for the study of speaker style. Given the large amount of data available in the B/NC dataset we could certainly observe more than snapshots of individual turntaking preferences. That observation revealed important variation between linguistic individuals in terms of turn shares when acting as narrators inside of narrative and acting in non-narrative roles outside of narrative. If future investigations into turntaking style were to find similar 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 have 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 this individual is a promising avenue for future corpus research.

Further, the findings related to turn order and turn distribution in narrative have profound implications for the study of turntaking as such. While the descriptions of turntaking procedures proposed by Conversation Analysts will doubtlessly remain foundational in the study of turntaking in conversation, we have demonstrated that there is far greater turntaking variability in more specialized conversational sub-genres such as storytelling than has hitherto been recognized and validated in empirical and statistical terms. The persistence of the N-notN-N pattern suggests that turntaking in conversational storytelling is not organized simply on a local turn-by-turn basis but governed by the shared activity of storytelling. As such, turn order and turn distribution can be seen as further, significant, evidence of the co-construction of narrative in conversation. Perhaps the most significant discovery relates to the single-response slot falling between the narrator-controlled first and third slot and the spokesperson technique employed by recipients to avoid double-responses. It suggests the possibility that there exists a recipient-subsystem for turntaking revolving around the single-response slot, which interacts with the narrator-recipient turn taking organization but still may largely work on its own terms. Exploring these terms and conditions represents an interesting avenue for future research. Another avenue opening up is the investigation of how different recipient subroles impact on the N-notN-N pattern. In this study, we confined ourselves to studying the relationship between main narrators and *any type* of recipient. As noted, recipients act in subtly distinct subroles contributing to stories in different ways and laying differential claims to co-authorship. Taking these distinctions into account would allow us to understand more fully the conditions determining the N-notN-N pattern’s success and, where applicable, lack of success. Again, we are convinced that corpora offering specialized XML annotation targeted at turntaking-relevant variables may be particularly powerful tools for penetrating more deeply into turntaking organization in different speech genres, much of which may still be *terra incognita*.

Appendix: Text “Stew”

CPR

S3	Oh
S2	It’s nice this stew is
S3	It’s alright if you like in it, I put steak and kidney in it
S4	(???)
S3	seems to be ate tons of it (laughing)today, eh
S2	There’s plenty of meat
S4	(???)
S2	yeah we ate we right enjoyed it
S3	It’s nice and tasty though don’t it? It warms you up

CNN

- S2 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?
- S1 R₁ No
- S2 N So she said she's no car to come over here
- S3 R₂ Mm
- S2 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
- 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)

References

- Bamberg, Michael, 2004a. Talk, small stories, and adolescent identities. *Hum. Dev.* 47 (6), 366–369.
- Bamberg, Michael, 2004b. Form and function of 'slut bashing' in male identity constructions in 15-year-olds. *Hum. Dev.* 47, 331–353.
- Bamberg, Michael, 2006. Stories: big or small. Why do we care? *Narrat. Inq.* 16 (1), 139–147.
- Blum-Kulka, Shoshana, 1993. "You gotta know how to tell a story": telling, tales, and tellers in American and Israeli narrative events at dinner. *Lang. Soc.* 22 (3), 361–402.
- Chafe, Wallace, 1992. The importance of corpus linguistics to understanding the nature of language Stockholm, August 4–8, 1991 In: Svartvik, J. (Ed.), *Directions in corpus linguistics. Proceedings of Nobel Symposium 82.* Mouton de Gruyter, Berlin. pp. 79–97.
- Crawley, Michael J., 2007. *The R Book.* John Wiley, Chichester.
- Duranti, Alessandro, 1986. The audience as co-author. An introduction. *Text* 6 (3), 239–247.
- Ervin-Tripp, Susan M., Küntay, Aylin, 1997. The occasioning and structure of conversational stories. In: Talmy, Givón (Ed.), *Conversation: Cognitive, Communicative and Social Perspectives.* John Benjamins, Amsterdam & Philadelphia, pp. 133–166.

- Gardner, Rod, 1998. Between speaking and listening: the vocalisation of understandings. *Appl. Linguist.* 19 (2), 204–224.
- Georgakopoulou, Alexandra, 2006a. Thinking big with small stories in narrative and identity analysis. *Narrat. Inq.* 16 (1), 122–130.
- Georgakopoulou, Alexandra, 2006b. The other side of the story: towards a narrative analysis of narrative-in-interaction. *Discourse Stud.* 8 (2), 265–287.
- Georgakopoulou, Alexandra, 2008. On MNS with buff boys. Self and other-identities in the context of small stories. *J. Sociolinguist.* 12, 597–626.
- Goffman, Ervin, 1981. *Forms of Talk*. Philadelphia University Press, Philadelphia.
- Goodwin, Charles, 1986a. Between and within alternative sequential treatments of continuers and assessments. *Hum. Stud.* 9 (2–3), 205–217.
- Goodwin, Charles, 1986b. Audience diversity, participation and diversity. *Text* 6 (3), 283–316.
- Goodwin, Charles, Heritage, John, 1990. Conversation analysis. *Ann. Rev. Anthropol.* 19, 283–307.
- Gregg, Gary S., 2011. Identity in life narratives. *Narrat. Inq.* 21 (2), 319–328.
- Gries, Stefan Th., 2015. The most underused statistical method in corpus linguistics: multi-level (and mixed-effects) models. *Corpora* 10 (1), 95–125.
- Gries, Stefan Th., Deshors, Sandra C., 2015. EFL and/vs. ESL? A multi-level regression modeling perspective on bridging the paradigm gap. *Int. J. Learn. Corpus Res.* 1 (1), 130–159.
- Hoffmann, Sebastian, Evert, Stefan, Smith, Nick, Lee, David, Prytz, Ylva Berglund, 2008. *Corpus Linguistics with BNCweb – A Practical Guide*. Peter Lang, Frankfurt am Main.
- Holmes, Janet, Stubbe, Maria, 1997. Good listeners: gender differences in New Zealand conversation. *Wom. Lang.* 20 (2), 7–14.
- Johnstone, Barbara, 1996. *The Linguistic Individual, Self-expression in Language and Linguistics*. Oxford University Press, Oxford.
- Kraus, Wolfgang, 2006. The narrative negotiation of identity and belonging. *Narrat. Inq.* 16 (1), 103–111.
- Labov, William, 1972. *Language in the Inner City*. Basil Blackwell, Oxford.
- Labov, William, 1997. Some further steps in narrative analysis. *J. Narrat. Inq. Life His.* 7 (1–4), 395–415.
- Leech, Geoffrey, 1997. Introducing corpus annotation. In: Garside, R., Leech, G., McEnery, T. (Eds.), *Corpus annotation. Linguistic information from computer text corpora*. Longman, London/New York, pp. 1–18.
- Leech, Geoffrey, 2005. Adding corpus annotation. In: Martin, Wynne (Ed.), *Developing Linguistic Corpora. A Guide to Good Practice*. Oxbow, Oxford, pp. 17–29.
- Mooney, Christopher Z., Duval, Robert D., 1993. *Bootstrapping. A Nonparametric Approach to Statistical Inference*. Sage Publications, Newbury Park, CA.
- Norrick, Neal R., 2000. *Conversational Narrative, Storytelling in Everyday Talk*. John Benjamins, Amsterdam & Philadelphia.
- Norrick, Neal R., 2008. Negotiating the reception of stories in conversation. Teller strategies for modulating response. *Narrat. Inq.* 18 (1), 131–151.
- Norrick, Neal., 2012. Listening practices in English conversation: the responses responses elicit. *J. Pragmatics* 44 (5), 566–576.
- Norrick, Neal, R., 2015. Interjections. In: Karin, Aijmer, Christoph, Rühlemann (Eds.), *The Cambridge Handbook of Corpus Pragmatics*. Cambridge University Press, Cambridge.
- Ochs, Elinor, Capps, Lisa, 2001. *Living Narrative*. Harvard University Press, Cambridge, MA.
- Rühlemann, Christoph, 2013. *Narrative in English Conversation. A Corpus Analysis*. Cambridge University Press, Cambridge.
- Rühlemann, Christoph, O'Donnell, Matthew B., 2012. Introducing a corpus of conversational narratives. *Construction and annotation of the Narrative Corpus. Corpus Linguist. Linguist. Theory* 8 (2), 313–350.
- Rühlemann, C., Bagoutdinov, A., O'Donnell, M.B., 2015. Modest XPath and XQuery for corpora: exploiting deep XML annotation. *ICAME J.* 39, 47–84.
- Ryave, Alan, L., 1978. On the achievement of a series of stories. In: James, Schenkein (Ed.), *Studies in the Organization of Conversational Interaction*. Academic Press, New York, pp. 113–132.
- Sacks, Harvey, 1992. *Lectures on Conversation, Vols. I & II*. Blackwell, Cambridge.
- Sacks, Harvey, Schegloff, Emanuel A., Jefferson, Gail, 1974. A simplest systematics for the organization of turn-taking for conversation. *Language* 50 (4), 696–735.
- Schegloff, Emanuel A., 1979. The relevance of repair for syntax-for-conversation. In: Givón, T (Ed.), *Syntax and Semantics 12: Discourse and Syntax*. Academic Press, New York, pp. 261–288.
- Schegloff, Emanuel A., 1982. Discourse as an interactional achievement: some uses of uh huh and other things that come between sentences. In: Deborah, Tannen (Ed.), *Georgetown University Round Table on Languages and Linguistics Analyzing Discourse: Text and Talk*. Georgetown University Press, Washington, DC, pp. 71–93.
- Schegloff, Emanuel A., 1995. Parties and talking together: two ways in which numbers are significant for talk-in-interaction. In: Paul Ten, Have, George, Psathas (Eds.), *Situated Order: Studies in the Social Organization of Talk and Embodied Activities*. International Institute for Ethnomethodology and Conversation Analysis & University Press of America, Washington, DC, pp. 31–42.
- Schegloff, Emanuel A., 1997. "Narrative Analysis" thirty years later. *J. Narrat. Inq. Life Hist.* 7 (1–4), 97–106.
- Schiffrin, Deborah, 1984. How a story says what it means and does. *Text* 4 (4), 313–346.
- Schiffrin, Deborah, 1996. Narrative as selfportrait: sociolinguistic construction of identity. *Lang. Soc.* 25 (1), 167–203.
- Selling, Margret, 2000. The construction of units in conversational talk. *Lang. Soc.* 29 (4), 477–517.
- Shuman, Amy., 1986. *Storytelling Rights*. Cambridge University Press, New York.
- Stivers, Tanya, 2015. Is conversation built for two? In: Paper read at the 14th International Pragmatics Conference, Antwerp, Belgium, 26–31 July.
- Stivers, Tanya, Robinson, Jeffrey D., 2006. A preference for progressivity in interaction. *Lang. Soc.* 35, 367–392.
- Thorne, Avril, 2004. Putting the person into social identity. *Hum. Dev.* 47, 361–365.
- Walmsley, Priscilla, 2007. *XQuery*. O'Reilly, Sebastopol, CA.

Further reading

- Rühlemann, Christoph, O'Donnell, Matthew B., 2015. Deixis. In: Aijmer, K., Rühlemann, C. (Eds.), *Corpus Pragmatics: A Handbook*. Cambridge University Press, Cambridge, pp. 331–359.