Communication disorders, enchrony, and other-participation in repair

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Introduction

Communication disorders pose various challenges for valid and reliable measurement. In Barnes and Bloch (2019), we sketched how the prevailing concepts and measurement practices employed in research and speech pathology practice for communication disorders have framed the real-time accomplishment of co-present communication, and contrasted them with its observable properties. In short, we argued that the prevailing ideas and measurement practices were largely insensitive to the collaborative, ongoing, multimodal sense-making that occurs every time co-present people communicate. Drawing on Enfield (2014), we also proposed that distinctive aspects of communication disorders could be divided into three conceptual/causal frames: *microgenetic*, *synchronic*, and *enchronic*. The microgenetic and synchronic frames respectively encompass the cognitive processing and linguistic systems supporting language and communication, while the enchronic frame aligns with the real-time accomplishment of communication. The enchronic frame holds a privileged position in the sense that it captures the ways that cognitive processing and language systems are actually put to use for communication. At the same time, it also provides a bridge to more distal, experience-oriented, and/or longitudinal frames for conceptualising communication disorders, which are substantial components of health-, disability-, and quality-of-life-based frameworks. Put simply, an enchronic perspective is essential for understanding linguistic, communicative, and social aspects of communication disorders.

In our introduction to this special issue on communication disorders and other-participation in conversation repair, we would like to briefly develop our account of concepts relevant for accessing the real-time organization of communication (i.e.,

enchrony), before specifically introducing the scope and relevance of the special issue, as well as the individual contributions.

Organizations of practice for interaction

There are a number of generic factors driving the organization of enchronic frame phenomena. These factors are relevant each and every time people gather together and communicate, and arise from the properties of co-present communication that we outlined in Barnes and Bloch (2019).[1] As such, they form the basis for key concepts and methods for making the enchronic frame accessible, i.e. conceptualising and measuring communication. Amongst these factors are systems of organization that Schegloff (2006, p. 72) collectively terms "organizations of practice". The organizations of practice that have been best described are *turn-taking organization*, *sequence organization*, and *repair organization*.

Organizations of practice are systems for managing generic constraints on communicating in co-present interaction. These systems are composed of normative conventions for designing and interpreting talk. Empirical research has demonstrated their robustness across languages and cultures, and they are therefore important forms of cultural infrastructure for the coordination of human activities (see, e.g. Dingemanse, Blythe, and Dirksmeyer, 2014; Levinson, 2016; Schegloff, 2006, Stivers et al., 2009). The first organization of practice we will describe is *turn-taking*. The turn-taking system is a resource for regulating participation in co-present communicative interaction using talk (Sacks et al., 1978). The normative conventions relevant for turn-taking are concerned with signalling when a spate of talk may be

[1] We argued that communication is *dynamic*, *public and multimodal*, *reflexive and accountable*, and *local and collaborative*. Recall, too, that our perspective here is informed by an ethnomethodological, conversation-analytic approach to social organization.

coming to an end, and determining which party will speak (i.e. participate) next. Put more technically, the system involves practices for turn construction and turn allocation. The key property of the turn constructional component of the turn-taking system is that it provides a basis for anticipating when the current speaker may discontinue speaking. Speakers and recipients (minimally) use a turn's syntax, prosody, and action to signal and evaluate its progress (Ford & Thompson, 1996). Upon reaching the first point at which a turn[2] could be complete, there is a normative expectation for speakership transfer, i.e. turn allocation. The turn allocational component of the turn-taking system provides a series of alternative practices for managing who will speak next. The next speaker may be nominated by the current speaker, other parties may select themselves as next speaker, and the current speaker may also persist with speaking. These options are not symmetrically available to all parties, with the current speaker having the first opportunities to indicate who should speak next. The gross outcome of the turn-taking system is minimisation of turn length, gaps between turns, and overlap between speakers.

Sequence organization is a system for developing relationships between turns, and forming them into sustained patterns of communicative actions. The fundamental relationship of sequence organization is the adjacency pair (Schegloff, 2007). Adjacency pairs are sets of two turns produced by different speakers. They are ordered, and include a first pair part—a first, initiating action—and a second pair part—a second, responsive action. When a speaker produces a first pair part, it arranges a set of normative constraints for responding. These constraints concern the actions that can relevantly follow, and in the linguistic formats that the action may take. For example, a *yes*/*no* question—a first pair part—normatively implicates an answering

[2] More technically, a turn-constructional unit (TCU).

response—a second pair part—that includes either a *yes* or a *no* (Raymond, 2003). Deviating from these normative expectations (e.g. producing an action other than an answer, or not producing a *yes* or *no*) is entirely possible, but can be variously understood as resisting the agenda that has been advanced with a first pair part. The adjacency pair relationship is an important basis from which larger patterns of communicative actions can be created. For instance, adjacency pairs can be "expanded" before the production of a first pair part, between the first and second pair part, and after the second pair part (see Schegloff, 2007).

Repair organization is a system for addressing problems with speaking, hearing talk, and understanding talk (Dingemanse et al., 2014; Schegloff et al., 1977). The repair system is arranged with reference to the turn-taking system, and includes two roles and two activities. The party that produces the troublesome item in their turn occupies the role of "self", while the recipient of the turn occupies the role of "other". The activities that parties in these roles can undertake are initiation of repair, and completion of repair. The repair system is normatively oriented towards self-initiation and self-repair, i.e. the speaker of the troublesome item identifying and amending it. Most commonly, this happens very promptly, within the same turn as the item (Schegloff et al., 1977). If the speaker fails to do so, then parties in the role of "other" have opportunities to initiate repair using various practices (e.g. "*huh*", "*what*", "*you saw who*"). However, the orientation towards self-repair persists, with other-initiation of repair typically still implicating self-completion. As with self-initiation of repair, other-initiations of repair are positioned as closely as possible to the targeted turn.

The more abstract, systemic properties of turn-taking, sequences, and repair that we have described so far are always situated. That is, every site of co-present communication is located in a particular socio-cultural scene. Rather than taking it as

a static backdrop, this common ground is dynamically enacted via the practices people adopt (Schegloff, 1991). In particular, people enact common ground by positioning themselves relative to others' knowledge, agency, and affect; or, respectively, the *epistemic*, *deontic*, and *emotional* orders (Stevanovic & Peräkylä, 2014). Asymmetries in these aspects of common ground are tightly related to the social identities that people come to adopt in the course of communicative interaction (e.g. Raymond & Heritage, 2006). Consider the case of a speech pathologist conducting an assessment with an adult client who stutters. The activities they will undertake together are undergirded by asymmetrical expectations about the knowledge each carries with them, how this knowledge can be employed, who will determine future actions, and the emotional states one may adopt with, and towards, the other. For example, the speech pathologist, by virtue of their professional incumbency, can claim to authoritatively know about the aetiology and presentation of stuttering in general, whereas the client can claim to authoritatively know about the details their own stuttering (cf. Raymond & Heritage, 2006). Moreover, these asymmetries will be enacted in and through the ways they take turns (e.g. Lerner, 2003), develop sequences of turns (e.g. Heritage, 2012), and initiate and carry out repair (e.g. Bolden, 2013). Policing the boundaries between reserves of knowledge may, intuitively, seem trivial, but people design their conduct with much sensitivity to their own and others' knowledge, as well as their agency and affect.[3] In doing so, they make visible who they take one another to be, animating a defined social world of, in this case, speech pathologists and clients, or, in others, mothers and daughters, shopkeepers and customers, etc. This provides an important basis for exploring the practical accomplishment of social institutions, social identities, social relationships, and social

[3] Linguistic practices dedicated to indexing knowledge are pervasively represented in the world's languages (see, e.g., San Roque, 2019).

problems (e.g. Enfield, 2013; Heritage & Clayman, 2010; Kitzinger, 2005; Whitehead, 2013).

When 'others' participate in repair

Repair organization is the primary righting mechanism for interaction, promoting the moment by moment flow of communicative acts that is characteristic of enchrony. Because people are pervasively accountable for their behaviour (Enfield, 2013), they are strongly committed to communicating with one another successfully each and every time they try. This means that repair must be reliable and efficacious whenever it is employed, and have stable and systematic practices associated with it.[4] Repair is, not, however, a neutral forum for arbitrating meaning. The differentiation of "self" and "other" in the repair system means that its context-specific use implicates issues of responsibility, competence, and social identity. So, when people carry out repair in interaction—as with other organizations of practice—its structural and moral properties are intertwined.

Problems with speaking, hearing, and understanding are core symptoms (and consequences) of communication disorders, and repair organization has proven a rich and important topic for investigation across a variety of populations. In summary, many communication disorders make self-repair less effective, which substantially expands the duration of repair, and implicates more elaborate collaborative efforts to resolve it (e.g. Aaltonen & Laakso, 2010; Barnes, 2016; Bloch & Wilkinson, 2009; Griffiths, Barnes, Britten, & Wilkinson, 2015; Laakso, 1997; Lind et al., 2010; Lindsay & Wilkinson, 1999; see Wilkinson, 2019, for a review). Often, this leads to the repair

[4] Imagine the chaos if the success of repair was normally distributed! Perhaps this is the aggregate experience of people with communication disorders.

activity supplanting the ongoing focus of the communication situation, effectively topicalising the persistent communication problems, and encouraging orientation to "disordered" social identities (e.g. Barnes, 2014; Wilkinson, 2007). Other-initiated repair sequences are a key vehicle for indicating and managing these significant problems with speaking, hearing, and understanding.

((Insert Table 1 around here))

In this special issue, the contributors explore how "others" participate in repair in interactions involving people with communication disorders.[5] The topics of the contributions are summarised in Table 1. Each provides detailed insight into population-specific ways that other-participation in repair (and associated activities) shapes communication in daily life. Antaki, Chin, Walton, Finlay and Sempik demonstrate that other-initiated repair sequences may be underdeveloped and avoided in interactions involving adults with intellectual disability and their support workers. Barnes explores the influence of right hemisphere stroke on other-initiated repair sequences, and finds some evidence of problems dealing with ancillary aspects of these sequences. Beeke, Capindale, and Cockayne illustrate that fluent, Wernicke-type aphasia can necessitate correction (i.e., other-initiated other-repair) from conversation partners in order to compensate for troublesome word selections. Bloch and Barnes analyse complex problems caused by dysarthria in motor neurone disease, focusing on the ways it can distort the repair opportunity space, and push other-

[5] Some contributions focus on sequences where the person with the communication disorder is in the role of 'self' (i.e., trouble source speaker), with their conversation partner(s) in the role of 'other' (i.e., trouble source recipient). Other contributions analyse sequences with the opposite configuration (i.e., person with communication disorder as trouble source recipient) or both configurations.

initiation of repair to the limits of its effectiveness. Pajo and Laakso examine how the severity of acquired hearing impairment influences other-initiated repair, demonstrating that it becomes more complex, and encourages strategic use of other modalities. Salmenlinna and Laakso analyse other-initiated repair sequences involving children with Developmental Language Disorder, and, although they identify few deviations from typical repair organization, they show that various contextual factors influence how these children carry out repair. Finally, Rae and Ramey compare correction in ABA therapy for a child with autism to correction in an interaction between the same child and his father, revealing how these difference practices provide for different kinds of participation opportunities.

In addition to these population-specific findings, there are some coherencies between contributions that are worth mentioning. First, the contributions from Barnes and Salmenlinna and Laakso link other-initiated repair sequences to the impairment symptoms of their target populations. Put in the terms of our conceptual approach to communication (Barnes & Bloch, 2019), they relate enchronic phenomena (i.e., repair sequences) and microgenetic phenomena (i.e., impaired cognition); albeit, in a preliminary fashion. Second, Rae and Ramey and Beeke et al. both focus on correction. In the case of aphasia, in particular, this kind of other-participation in repair has mostly been framed negatively (and, certainly, it can be a communication barrier). Each of these contributions highlight how repair practices dedicated to correcting problematic talk from people with communication disorders can productively structure participation in interaction. Finally, Antaki et al. and Rae and Ramey both provide a window into how repair and related practices may be put to work in support of institutional objectives.

With this special issue, our ultimate aim is to place a spotlight on repair as a key feature of communication, and one that holds special importance for people with communication disorders and those with whom they interact. The work collected here exemplifies ways that repair can provide insight into cognition and symptoms of impairment, communication patterns and restrictions characteristic to particular populations, and the social consequences of communication disorders. As we have argued in Barnes and Bloch (2019), research and clinical practice stands to substantially benefit from intensifying and sustaining its focus on enchrony, and repair organization is an appealing point of inquiry.

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Table 1. Focus populations of each special issue contribution.

Contributor(s)	Population studied
Antaki, Chin, Walton, Finlay and Sempik	Adult intellectual disability
Barnes	Right hemisphere stroke
Beeke, Capindale, and Cockayne	Wernicke-type aphasia
Bloch and Barnes	Motor neurone disease dysarthria
Pajo and Laakso	Acquired hearing impairment
Salmenlinna and Laakso	Developmental language disorder
Rae and Ramey	Childhood autism