**OVERVIEW**

Dr. Hengst has completed a series of ethnographic studies examining how people with aphasia and their everyday partners engage in and re-organize functional communication. Along with her students and colleagues, she has also examined the communication of individuals managing amnesia, cerebral palsy, and autism, and is designing intervention approaches to support clients’ distributed communication abilities. Drawing on that research and distributed theories of communication, her three-part presentation is organized around the following topics:

- **Part 1**—*Distributed communication and what aphasia patients do well*
- **Part 2**—*Collaborative approaches to aphasia therapy and the clinician’s role*
- **Part 3**—*Creating rich communicative environments in clinical spaces*

Across these sessions we will consider a) how people with aphasia tell stories, share jokes, and successfully communicate with partners; b) how collaborative treatment approaches for aphasia require clinicians to be flexible communication partners; and c) how rich communicative environments can be utilized in clinical settings.

**References for Further Reading:**

The presentations will draw on the following references, listed here by topic. (Note: If you don’t have access to any of the published sources and would like to read one or more of the them, please email Dr. Hengst at: hengst@illinois.edu)

1. **Key Principles of Distributed Communication:**


2. **Interactional Discourse Resources (IDRs) and Communication Disorders:**

   - **Conversational Narratives:**

   - **Reported Speech:**

reported speech as a communicative resource in amnesia. *Aphasiology, 21,* 702-716.

- **Collaborative Referencing:**

- **Verbal Play**

3. **Clinicians as Flexible Communication Partners in Collaborative Treatments:**

4. **Using Rich Communicative Environments in Clinical Settings**
Defining Aphasia (within a medical model): Disruption in language use across all modalities due to acquired damage in brain regions specialized for those functions.

- NOT motor speech, sensory, single modality, or cognitive disorders
- CLASSIFIED by individual behaviors on structured tasks, e.g., fluency of connected speech; auditory comprehension; naming; repetition of phrases.
- FUNCTIONALLY people with aphasia communicate better than they talk and improve post-injury with or without therapy.

Defining Distributed Communication (social/activity-based model): I have proposed distributed communication (see Hengst, 2015) as a conceptual tool for clinical practice that draws on distributed cognition and cultural-historical activity theories from psychology, theories of communicative practice from linguistic anthropology, and interactional sociolinguistics.

The core premise is that communicative resources (e.g., language, gestures, writing) and practices (e.g., routinized discourse patterns) are not discrete phenomena, but must be examined as facets of sociocultural activity.

Three key principles of distributed communication:

1. language and all communicative resources are inextricably embedded in activity;
2. successful communication depends on common ground built up through short- and long-term histories of participation in activities;
3. language cannot act alone, but is always orchestrated with other resources.

Distributed communication characterizes learning as a constant dimension of participation in activities (not limited to moments of intentional instruction or therapy). Activities are never static: they change moment-by-moment as participants shift roles and negotiate goals, and they change over time as new people participate, necessarily (and often subtly) transforming them.

A distributed communication perspective then highlights not only the social ground of learning, but also that learning is a part of all social interactions whether participants are changing or mainly reinforcing what they know and do.

Interactional Discourse Resources (IDRs):

IDRs are highly recognizable and robust discourse patterns that participants routinely use to frame interactions. Our findings document that IDRs are common in everyday communication, including interactions where participants are managing aphasia and amnesia. IDRs serve as interactional resources, providing all participants with familiar yet flexible ways of shifting alignments in the moment-by-moment flow of everyday interactions. Here we review four IDRs that people with aphasia successfully use to frame their talk:
1. **Conversational Narratives:** “Acquired in childhood, personal narrative is ubiquitous. Whether in a store, along the road, at work, play, home, or other community settings, when people are together, they are inclined to talk about events—those they have heard or read about, those they have experienced directly, and those they imagine. Their talk about such events often takes the form of personal narrative.” (Ochs & Capps, 2001, in Hengst, 2010)

   **Operational Definition:** Verbal or nonverbal presentation of an event displaced from the moment of telling which is linked to a second temporally related event or evaluation; may include additional narrative features, such as background details, transitions, interpretive statements, and codas.

2. **Reported Speech:** “News, gossip, stories, indeed the whole fabric of everyday conversation depends heavily on quoting or referring to the words of others, and it is hard to imagine a day of our lives when we do not at some point support our discourse with direct or indirect reference to someone else’s words.” (McCarthy, 1998; in Hengst, et al., 2005).

   **Operational Definition:** Reported speech is the restating, or reenacting, of talk, thoughts, actions (of others or oneself) that occurred at another place or time. A reported speech episode (RSE) includes both the talk (thoughts, acts) being reported and framing devices (e.g., he said...). We focused on five types: direct (He said, “yes”); indirect (He said that he agreed); projected (I could have said, “Nope, you can’t.”); indexed (That’s what he was saying); and undecided (or blended) forms.

3. **Collaborative Referencing:** H. H. Clark (1992) argues that successful referencing depends on speakers and listeners working together to establish shared perspectives on target objects. In his collaborative referencing model, Clark identified 3 phases in the referencing process: initiation, refashioning, and acceptance. For referencing tasks, successful collaboration can be seen in the streamlining of referencing expressions and in the decrease of overt collaborative effort across trials. (Hengst, 2003)

   **Operational Definition:** The process of using verbal and gestural resources to establish joint attention on a shared point of reference (e.g., object, person, location, activity, event), and the resulting label that works to denote that reference. Collaborative referencing evolves through repeated engagement, often across many interactions.

4. **Verbal Play:** Linguists, sociolinguists, and anthropologists point to verbal play as a pervasive communicative practice that crosses contexts, serves developmental and interpersonal functions, and foregrounds participants’ meta-communicative awareness as they work to frame utterances as playful. (Hengst, 2006).

   **Operational Definition:** A playful episode includes telling funny stories or jokes, playing with sounds or making puns, teasing or self-deprecating humor, marked or playful voices or registers, singing or song-like intonations, and use of sound effects. A playful episode may be one utterance, or multiple contiguous utterances that share a common playful theme. Laughter may be in response to a playful utterance or action, but laughter alone was not counted as a playful episode.

**Group Activity**—working in small groups (3-5 people) we will practice identifying and deploying IDRs in everyday conversations. (Instructions provided in session.)
Clinicians as Communication Partners: Taking up clinical discourse as distributed communication calls attention to the role that clinicians play in co-constructing clients’ discourse. In traditional clinical contexts, the clinician assumes the role of expert or person-in-charge, whereas clients are offered the role of novice or person-seeking-help (see Leahy, 2004; Simmons-Mackie, Damico & Damico, 1999; Kagen, 1998).

One way to avoid the strong pull of traditional clinician-client discourse roles is to rely more heavily on clients’ everyday communication partners and settings. In addition, we argue for the critical importance of empowering clinicians to reimagine their roles in clinical contexts and to flexibly wield their discourse expertise to achieve clinical goals.

Mediated Discourse Elicitation Protocol (MDEP): The MDEP (Hengst, et al., 2007) selectively samples familiar discourse types (e.g., conversational, narrative, procedural, and descriptive) in a manner designed to preserve the interactional aspects of these different discourse types (e.g., clinician as audience to client storytelling). Critically, clinicians must have expertise in mediating and supporting all discourse types and roles.

Initial Pilot: In our initial protocol, we identified two interactional frames—a clinician-directed frame and a reciprocal discourse frame—and called for the clinician to shift her communicative stance between these two frames as appropriate throughout the session.

The results were disappointing—the clinician maintained a clinician-directed stance, rarely shifting into the reciprocal frame, and worked to limit her own talk-time; the session seemed stiff; and the client repeatedly asked for assurance that she was doing things “right”.

Second Attempt: To better specify the clinician’s dynamic role in the discourse being sampled, we revised the protocol to focus on goal-directed activities (e.g., clinical management, discourse sampling, transitioning). We also encouraged the clinician to make interactional choices throughout the session by asking herself: What is the current activity? What clinical goals does this activity address? How should I collaborate with the client to accomplish this activity?

The results were encouraging—the clinician clearly shifted her stance throughout the session, taking on diverse interactional roles to support different activities; at various times both the client and clinician took the conversational lead; and the client-clinician interactions during this second session were more consistent with the client’s conversational engagement with others outside of the clinic room.

Broadly, our findings revealed that:

- clinicians can flexibly shift their discourse roles to achieve clinical goals, and
- complex interactional discourse can be elicited in clinical settings.
Barrier task studies and social learning (Hengst, Duff, Dettmer, 2010): Barrier task protocols have a long history as a learning task. Typically, barrier tasks involve two people sitting across from one another, with their view of each other obscured. Each person is assigned a role (director or matcher), with the director providing verbal clues to the matcher on how to, for example, match a set of pictures to specific locations on a board. Research has documented change over repeated trials in the way speakers adjust their utterances in response to the listeners’ knowledge and social roles and in how speakers and listeners collaborate on the development and use of specific references (see Clark, 1992; Yule, 1997). Studies have consistently found that referencing expressions simplify and shorten across trials. Our research using barrier task protocols has found that, when paired with routine partners, participants with aphasia (Hengst, 2003) and amnesia (Duff, Hengst, Tranel, & Cohen, 2006) display creative language use and robust learning across trials (i.e., successful task completion, decreased overt collaboration around identification of cards, and development of more concise labels).

Translating the barrier task—Given that robust learning, we redesigned the barrier task as a game-like treatment protocol and piloted it with a man with amnesia and mild aphasia. The treatment protocol used: a clinician as the game-play partner; referencing targets personally relevant to the client; an expanded number of targets (from 12 to 30); and an extended protocol (from 4 to 10 sessions).

Results—on all measures the pilot was a success:

- client–clinician pair completed all trials, accurately placed target cards, and developed specific labels for all 30 targets;
- fidelity analysis confirmed that the clinician successfully adopted a collaborative partner role;
- analysis of conversational repetition of card labels during treatment sessions revealed that the clinician-client pair repeated their own and each other’s referencing expressions throughout the protocol, leveraging chains of conversational repetition (within, between, and across trials) into succinct labels.

Strikingly, the conversational repetition during this game-like activity was achieved without any sustained clinician-directed cues. Thus, the analysis of repetition led us to suggest that marshaling *conversational repetition* through *repeated engagement* in everyday tasks offers a theoretically and empirically grounded framework for reconceptualizing language intervention.

Currently we are continuing to explore barrier treatment protocols and their effects on improving the communicative practices and lives of people with chronic aphasia (see Devanga, et al., 2015).

**Group Activity**—working in small groups (3-5 people) we will read through transcripts to identify the clinician’s role in a variety of discourse patterns. (Instructions provided in session.)
PART 3:
Identifying and creating rich communicative environments in clinical spaces

The concept of distributed communication parallels Hutchins’s (1995) classical account of distributed cognition offered in *Cognition in the Wild*. Close analysis of the cultural-historical trajectories of group problem solving, task completion, and situated learning led Hutchins to conclude that:

“[T]he real power of human cognition lies in our ability to flexibly construct functional systems that accomplish our goals by bringing bits of structure into coordination. That culturally constituted settings for activity are rich in precisely the kinds of artifactual and social interactional resources that can be appropriated by such functional systems is a central truth about human cognition” (p. 316).

Distributed cognition and distributed communication go hand-in-hand as people must coordinate their attention, act collaboratively, and continually align within dynamic activities by orchestrating multiple and diverse communicative resources (from gestures and language to expected routines and responses).

These accounts of distributed cognition and communication along with research on the power of rich environments to support learning and health (e.g., van Praag, Kempermann, & Gage, 2000; *Nature Reviews Neuroscience*) suggest reconceptualizing treatments for aphasia around identifying and building rich communicative environments.

**Identifying communicative opportunities within clinical spaces:**
- **Acute Care**—identify supports for patients’ immediate communicative needs.
- **Sub-Acute Rehab Settings**—support communicative success in medical setting.
- **Outpatient Rehab Settings**—support communicative success in home setting (post d/c).
- **Skilled Nursing Facilities**—develop and build on routine activities.
- **Home Care**—support everyday communicative activities.

**Creating rich communicative tasks and environments within clinical spaces**
- **Personally motivating and communicatively rich treatment tasks**—e.g., adapting the barrier task for individual clients.
- **Animal Assisted Therapy (AAT)**—Create rich communicative activities as a space for targeting communication goals.

**Bringing clients’ communicative lives into clinical practice**
- Playing games and game play—affinity spaces and their role in clinical practice.
- Using clinical settings as affinity spaces for outside (home) activities.

**Group Activity**—participants will be asked to complete a quick write describing how these approaches might apply to clients currently on their caseload. Working in pairs, participants will discuss with their partner, then with the large group. (Instructions provided in session.)