

## Research to Practice

### Dual Perspectives on Theory in Clinical Practice

# Practice Makes Perfect: The Incompatibility of Practicing Speech and Meaningful Communication

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**P**ragmatic notions have been an integral component of speech-language therapy for almost 20 years. The so-called “pragmatics revolution” has profoundly changed the way clinicians assess and treat children with speech and language disorders. In many cases, effective communication has replaced more specific structural objectives as the overarching goal of speech-language therapy (Brinton & Fujiki, 1989; Duchan, Hewitt, & Sonnenmeier, 1994; Gallagher, 1991; Owens, 1995). Consistent with pragmatic notions, it has been assumed that to achieve the goal of effective communication, specific syntactic, semantic, and even phonological objectives must be taught in naturalistic, functional, communicative, and meaningful contexts. The purpose of this article is to raise

the possibility that some children may view the therapy situation as one in which new sounds and language forms are learned and practiced. Practicing speech and correcting errors is thus the primary focus of therapy and this focus is incompatible with effective communication. In contrast, the focus and purpose of most non-therapy speaking situations is meaningful and purposeful communication. What led me to recognize this inconsistency and consider its potential clinical implications was the way in which my daughter Franne dealt with her phonological disorder.

### A BRIEF CASE HISTORY

Franne was a normally developing child with the exception of her speech delay. She had no history of otitis media. Receptive language and cognitive development (sensorimotor tasks, symbolic play, nonverbal intelligence) were in the average to above-average range. Her expressive language development was slightly delayed. She did not produce two-word utterances until age 2:0 (years:months). By age 3:0, gross measures of expressive language, such as mean length of utterance (MLU), and structural language stage (Retherford, 1993) were within normal age limits. The absence of /s/ and /z/, however, did limit her production of plurals, auxiliaries, copulas, possessives, and third-person present -s.

The nature of Franne’s phonological delay was unremarkable. At 2 years of age, she had an extremely limited

**ABSTRACT:** In this article, the possibility is raised that some children may implicitly view the therapy situation as one in which new sounds and language forms are learned and practiced. In contrast, the primary purpose of talking outside of therapy is meaningful communication. Inherent in this view of therapy and non-therapy is the incompatibility or inconsistency between practicing speech and communicating effectively. What led me to recognize this inconsistency and consider its potential clinical implications was the way in which my daughter Franne dealt with her phonological disorder.

**KEY WORDS:** phonological disorder, intervention

phonetic inventory. At age 2:4, she substituted /d/ for all of the fricatives (including /h/), affricates, glides, and velar stops. At 2:9 she acquired /f/. She was enrolled in therapy at age 3:0, and during the next 4 months acquired /h/ and /w/. By 4 years of age, she still was not producing the sibilants or affricates. Within the next 6 months, she acquired /j/ and the two affricates. Therapy was terminated at age 4:9 because she was making no progress learning to say /s/ and /z/. Shortly before her fifth birthday, she began to produce /s/ and /z/ after a brief intervention. These sounds quickly generalized throughout her speech. If someone met her for the first time when she was 5 years old, they would never have known that she ever had a speech problem.

The therapy Franne received could best be described as “traditionally eclectic.” During the almost 2 years she received therapy, she had three clinicians who would all describe themselves as not being tied to one approach. Therapy generally consisted of play activities designed to call Franne’s attention to particular sounds, have her identify words with target sounds, and use these sounds in words and short phrases. For example, if she were working on /h/, a typical activity would involve the clinician modeling /h/-words (e.g., house, hot, happy, hat, hug, etc.) and asking Franne to perform various activities with the words, such as naming them, using them in short phrases, and performing actions with them. None of the clinicians used any systematic activities to help Franne generalize the sounds she was learning, but this was probably because the clinicians assumed that I would do everything possible to facilitate generalization to non-therapy situations

Although the nature of Franne’s phonological delay was unremarkable, there was something notable about her phonological development. Soon after she began to have formal therapy at age 3:0, she refused to practice speech or work on developing sounds with anyone other than her speech-language pathologist. In other words, whenever my wife or I asked her to use a new sound or tried to engage her in sound-play activities, she basically ignored us. Before this time, my wife could occasionally get her to play sound games when the two of them were alone. Franne’s reluctance to practice developing speech sounds or engage in any sound-play activities outside the therapy situation was probably due, in part, to her stubborn nature and the difficulty involved in producing the new sounds in meaningful communicative situations. At another level, however, practicing speech sounds is incompatible with efficient, effective communication. It is difficult to communicate effectively while one is being asked to stop and say sounds differently. I think even young children like Franne implicitly recognize the basic incompatibility between practicing speech sounds and communicating effectively. Franne’s reluctance to practice speech sounds was her way to let us know that we should focus on what she said when she spoke, rather than on how she said it.

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## PRACTICE MAKES PERFECT

Franne was much like a seasoned tennis player trying to correct a flawed tennis stroke (e.g., backhand, forehand,

serve). It is common for tennis instructors to stress how important it is to practice a new stroke before trying it out in a real match. The tennis pro knows that it is difficult to override or unlearn poor stroke mechanics during matches. Many tennis players, however, do not like to practice and thus often end up frustrated when they are unable to properly execute the new stroke in a match. New tennis strokes need to reach a certain level of proficiency before they should be used in a match.

The analogy with learning to produce new speech sounds should be apparent. Franne knew (at some level of awareness) that she could not readily produce new speech sounds during “match-like” conditions (i.e., every situation except therapy). In a limited capacity system, the attentional resources required to plan what to say leave few resources available to focus on speech production. As adults, we often do not appreciate how difficult it is to monitor and modify speech when we are communicating. For instance, adults who attempt to modify an aspect of their dialect quickly realize how difficult it is to change something they have been doing all their lives. It took me years, for example, to eliminate characteristics of my New York dialect, such as adding *rs* to words like *pizza* and *Pennsylvania* and dropping *rs* from words like *letter* and *mother*.

To get a sense of the difficulty involved in changing a dialectal feature, try to produce a dentalized /s/ in all words containing /s/ during a 5-min conversation sometime during the day. Monitoring and modifying speech is difficult for adults despite the considerable knowledge they have concerning phonological segments in words and their proficient speech production system. For young children with limited phonological awareness and limited speech production abilities, monitoring and modifying speech while attempting to communicate meaningful information should be all but impossible. Some children who have a risk-taking nature are not afraid to attempt the impossible, but Franne was not a risk-taker. Instead, she was like the seasoned tennis player who followed the tennis instructor’s advice to not use a new stroke in a match until she had mastered it in practice, and the only practice situation for Franne was therapy.

Over time, Franne gradually became more proficient in producing new speech sounds. When she reached a certain level of proficiency in therapy, she readily and rapidly, over 2–4 weeks, replaced the old sound with the new one in meaningful, communicative speech. How she determined when she reached an adequate level of proficiency was not clear. What was an adequate level of proficiency was also not clear, although the rapid generalization of new sounds suggest that the level was fairly high (> 75% in therapy). Importantly, it was Franne who decided what the criterion was and when she reached it, not the clinician.

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## THE GENERALIZATION PROBLEM

Franne’s refusal to practice new speech sounds in communicative situations has traditionally been viewed as a generalization problem because she appeared to have

difficulty applying what she has learned in therapy to non-therapy situations. Franne is not alone in experiencing such difficulty. Clinicians and researchers have long recognized that many children with phonological disorders experience difficulty applying the sounds that they learn in therapy to spontaneous speech outside of therapy (e.g., Ertmer & Ertmer, 1998; McReynolds, 1987). Because the ultimate goal of phonological intervention is the correct production of speech sounds in spontaneous speech outside therapy, specialized instruction to facilitate generalization may often be needed. Techniques advocated include the use of parental monitoring, increased emphasis on self-monitoring, and increasing the rate of production for single words. McReynolds found that the effectiveness of these techniques was highly variable among children. Perhaps a different approach, such as the constructivist strategies described in a recent article by Ertmer and Ertmer, will prove to be more effective than these other techniques. In this approach, children are taught to become self-regulated learners who can implement, monitor, and evaluate various learning strategies to facilitate generalization. Would such an approach or another type of specialized instruction have facilitated Franne's generalization of new speech sounds to spontaneous speech outside therapy? One would hope so, but Franne may have been too young or too stubborn to reflect on learning strategies or simply not care enough about using the right speech sounds.

Although it has been common to distinguish between initial learning and generalization, it is also possible to view generalization problems as acquisition or learning problems (cf. Kamhi, 1988). If a behavior is not transferred to different situations, it indicates that the behavior was only partially learned because acquired or fully learned behaviors readily transfer. Franne had little difficulty using a new speech sound outside of therapy once she mastered (learned) the sound in therapy. It just took her some time to master new sounds because she would not practice them outside of the therapy situation.

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## POSSIBLE EXPLANATIONS FOR FRANNE'S BEHAVIOR

There are many possible reasons for Franne's refusal to practice speech sounds outside of therapy. Perhaps Franne simply did not like the kinds of things my wife and I asked her to do or we asked her to do too much. It is hard to be completely objective about one's parenting style, but if anything, we erred on the side of not pushing her to do things she did not want to do. Given the progress Franne was making with speech therapy, my wife and I were concerned that she might not want to have therapy anymore if we pushed her too much. In addition, as I noted earlier, she was also a very stubborn child, which made it difficult to get her to do things she did not want to do.

Another possible explanation for Franne's behavior concerns the difficulty of the learning task or generalization problem. As noted earlier, many children with phonological disorders have difficulty generalizing what they learn in

therapy to spontaneous speech outside of therapy (McReynolds, 1987). Limitations in processing resources, phonological awareness, monitoring abilities, and motivation all contribute in some way to this difficulty. In addition to these factors, some children may view therapy as a situation where the focus is on correcting speech errors and learning to talk better. There is some support for this notion in the literature. Ripich (1982, cited in Panagos, 1996), for example, asked young school-age children in therapy what was the most important thing their clinician wanted them to do. A typical response was, "Oh, she wants me to talk." In some cases, children thought they were supposed to talk badly in therapy. In a role-playing activity in the same study, one girl who was asked what she did in therapy responded, "Well, I'm supposed to make the bad /r/ sounds." In this case, the clinician is seen as the error corrector. Studies such as these (cf. Panagos, 1996, for a more detailed review of this literature) leave little doubt that young school-age children might view therapy as a situation that has a different purpose as well as different rules of discourse than non-therapy situations.

Frane's behavior suggests that young preschool children can also recognize that therapy has a different purpose and discourse rules than non-therapy situations. Franne's reluctance to practice speech in non-therapy situations seemed to be due, at least in part, to the clear distinction she made between the purpose and discourse rules of therapy and non-therapy situations. Practicing new speech sounds was acceptable in therapy because meaningful communication was not the primary goal. In contrast, practicing speech was inappropriate outside of therapy where meaningful communication was the primary goal. In every situation except therapy, people listen to what is being said, not how it is said. By implicitly viewing therapy as a situation where meaningful communication was not the primary goal, Franne inadvertently undermined clinical attempts to facilitate generalization through the use of communication-based activities.

One might reasonably question whether preschool children have the cognitive sophistication to recognize such differences. The literature is filled, however, with examples of how preschool children are able to adjust their speech to different listeners and situations (e.g., Dunn & Kendrick, 1982; Garvey & Hogan, 1973; Guralnick & Paul-Brown, 1989). But, preschool children usually have limited conscious awareness of these adjustments and are often unable to explicitly talk about them. Franne, of course, never verbalized how she viewed therapy and non-therapy situations. Her stoic stares and annoyed facial expressions were her form of communication. Is it appropriate to interpret these stares and facial expressions as evidence that Franne viewed therapy as a situation that had a different purpose and different discourse rules than non-therapy? I obviously think it is.

Accepting that Franne recognized these differences between therapy and non-therapy situations does not minimize the influence of the other factors mentioned. Indeed, there would be little argument in attributing Franne's reluctance to practice speech outside of therapy to overly nagging parents, her stubborn nature, or the

difficulty many children have generalizing new speech sounds to spontaneous speech. These explanations of Franne's behavior are clearly more defensible than the contention that Franne recognized the incompatibility between practicing speech and meaningful communication. But these factors help to explain why phonological systems are difficult to change and take so long to mature, especially in children with speech delays; they do not explain why Franne was so adamant in refusing to practice talking when she was not in therapy. I think the best explanation for this behavior was her implicit recognition that therapy was the only place where it was acceptable to practice speech. Other children may have the same recognition but be more willing to take risks or be more responsive to parental requests to practice speech and engage in sound play.

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## SUMMARY AND CONCLUSIONS

The purpose of this article has been to consider the possibility that some children may view the therapy situation as one in which new sounds are learned and practiced. In other words, therapy is viewed as a situation that has a different purpose and different discourse rules than non-therapy situations. We would hope that most children believe that talking better is the goal of therapy, not talking poorly, but this is not always the case, as Ripich (1982, cited in Panagos, 1996) has shown. Importantly, although this article has focused on speech therapy and practicing speech sounds, the same claims can be made concerning language therapy and practicing language forms and structures.

I am not sure if I fully understand the consequences of a child viewing therapy as a situation where meaningful communication is not the primary goal. This recognition might help explain why some children may be less responsive to generalization training, but many factors influence how readily children use sounds learned in therapy in spontaneous speech outside of therapy. It would be difficult to determine the relative influence of each of these factors. In addition, the recognition that therapy has a different purpose than non-therapy situations will not have the same effect on all children. For example, risk-taking children who are not bothered by communicative disruptions or breakdowns may be quite willing to practice new speech or language forms outside of the therapy situation. Personality factors can also influence how responsive children are to requests for them to do something they prefer not doing. If Franne had been less stubborn, she may have been more willing to practice speech outside of therapy.

The notion that children may view therapy differently than non-therapy situations does not mean we should turn the clock back to the days when speech-language therapy was routinely conducted in sterile, non-communicative contexts. The degree to which treatment should be communication-based should depend on factors, such as the nature of the treatment goals and the age of the child. Communication-based approaches may be the most effective way to

teach certain speech and language behaviors, even if a child views the therapy situation as one in which meaningful communication is not the primary goal. At the same time, if a child does view therapy as a time to practice speech, clinicians may wish to provide numerous opportunities to do so. Drill play activities are particularly well suited for providing such opportunities in a play environment (cf. Shriberg & Kwiatkowski, 1982). Less structured play activities can also provide opportunities for practice. Importantly, frequent repetition and practice should not be viewed as antithetical to communication. Instead, practice should be viewed as an effective way to facilitate productive use of speech and language forms in meaningful, communicative situations.

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