

CROSS-LINGUISTIC DISCOURSES IN A DUAL-LANGUAGE CLASSROOM: AFFORDANCES AND CONSTRAINTS

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1. Introduction

In the dual language program, also known as TWI (Two-Way Immersion)², children who speak a majority language are grouped with children who speak a minority language, and instruction is delivered in both languages. The program is defined structurally, in terms of equal numbers of speakers of both languages and instruction in both languages, rather than in terms of the instructional technique, which varies (CAL, 2001a: 255, CAL, 2001b; Christian & Genesee, 2001; Sugarman, 2001). Nevertheless, the interactions among children, particularly across the two languages, are seen as essential to the success of these programs in promoting bilingual development (Wong-Fillmore, 1991; Christian, 1994). This focus on structural rather than instructional design can lead to what I define as a recipe approach to design: add the ingredients (native-speaking children, content language instruction) in the proper amounts and expect the desired product (bilingual children). In this presentation I will report some results from a year-long ethnographic study conducted in an American dual language (Spanish-English) classroom. Specifically I will describe the teacher's efforts to design a physical environment to afford children's Spanish language conversation, the failure of these efforts, and the unexpected emergence of conversation through conflict and negotiation.

2. Research context

The study was conducted in a Kindergarten classroom during the 1998-1999 school year at a school in Northern Delaware, USA. This was the first year the dual language program would be implemented in this school, and the instructor was a

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² Throughout this paper, TWI and dual language will be used interchangeably.

veteran ESL teacher who had been teaching 3rd grade ESL in the school. The teacher, Dana Simone³, was fluently bilingual in Spanish and English. A native of Argentina, she had immigrated to the US as a teenager. While she had never before taught in a dual language setting, interviews revealed that she had asked to be assigned to the new dual language classroom, and was very supportive of the model and a strong advocate of Spanish language instruction for children from Spanish-speaking families. Through classroom observation over the course of the school year (where I videotaped, audio-taped, and recorded fieldnotes) as well as periodic interviews with the teacher where she reflected on her challenges and pedagogical approaches, I studied Dana's pedagogical strategies, the interaction patterns of the children, and Dana's ongoing reflections on the efficacy of her own practices.

3. Narrowing the focus: Spanish language free-play Centers

Dana's classroom on any given day was divided into several "times," each consisting of its own set of educational goals and norms for participation. These times, like similar classroom activities described by Erickson & Shultz (1981), differed in participant structure, "with differing rules for appropriateness for paying attention, getting the floor, maintaining topical relevance, fidgeting" (Cole, Engeström *et al.*, 1997). I focused on the least teacher-directed time, Centers time, mainly because I agreed with Dana's assumption that this relatively unstructured time would be the most conducive to fostering children's conversation. There were two Centers, Blocks (stocked mainly with building blocks, vehicles, and similar manipulative toys) and Housekeeping (stocked mainly with a table, chairs, toy utensils for eating, and pretend plastic food items). I also focused on the Spanish language time, which generally occurred in the morning half of the day, because Dana believed that English speakers were having more trouble with Spanish than Spanish speakers were having with English. Her identification of this tendency is also supported by research (Alanís, 2000; Amrein & Peña, 2000; De Jong, 2002).

³ The teacher and all children have been assigned pseudonyms.

4. Early observations: The failure of centers play to promote conversation

I chose to use conversation as a unit of analysis because of Dana's interest in conversation, that is, her conviction that conversation was the means by which language learning progressed, and therefore her goal in designing the play Centers. She explained at the end of the year, as she reflected on her Centers design, "I wanted them to practice the language I was teaching them, there in the Centers" (5/20/99). She explicitly connected conversation to play, "We as adults, we banter with each other and we talk and we, you know, we play. We are actually having a play right now, conversing with each other". Nevertheless, to Dana's disappointment, neither free-play Center seemed to support this goal of generating conversation among the children through play. Dana reflected with disappointment toward the end of the year that "There was no conversation going on there" (5/20/99).

The tendency of children to play in Centers with very little language interaction is exemplified by the following incident. The following excerpt from a videotaped transcript of Housekeeping play, in which three girls silently set the table and prepare a meal, demonstrates play dominated by nearly silent physical activity:

Amalia is setting the table silently and alone until Sandra enters. Sandra does not acknowledge Amalia but goes directly to the cupboard and takes out a plastic bin full of pots, pans, plates, etc. and puts it on the counter. Sandra and Amalia continue setting the table, but still not speaking to each other. Alberta enters and goes directly to the stove, looks inside, turns it on, and then walks over to the cupboard. Alberta takes a plastic bin full of plastic food from the cupboard, carries it to the counter by the sink, reaches under the cupboard by the sink to retrieve some plastic pots and pans, and begins to cook. Meanwhile, Sandra goes to the cupboard to get a bin of plastic glasses and begins to set the table with them. Amalia pretends to eat a plastic ice cream cone as she sets the table. She steps back and licks the ice cream cone thoughtfully as she looks at the table, and then runs to the cupboard to get something. Alberta runs over from the sink to the table and looks intently at the table for a few seconds, then runs back to the sink and continues cooking. (1/22/99)

5. Explaining play without conversation: different perspectives

I reflected on the nature of this play in my journal that day, "With all this bustling, the play seems more like work. And the girls are almost silent and completely unengaged with each other, as they might be in a real household, where people are trying to work" (1/22/99). Dana and I discussed this relatively silent play in Centers throughout the year, and it became clear that our interpretation of this phenomenon was quite different. To begin with, Dana understandably reflected on this silence through the

lens of her own teaching goals. Recall that she had hoped to design the free-play Centers to promote conversation, and so, not surprisingly, she interpreted the Centers activity as unsuccessful play. Dana's ongoing commentary on the children's play further revealed her definition of play as not simply an activity engaged in by children, but one that required certain skills, suggesting that a child could be a relatively skilled or unskilled player. During one of our conversations which I paraphrased in my journal, she explained her belief that children today are fundamentally different from the children she remembers growing up with, and lamented their lost skills of play (3/2/99). Later, during an interview, she returned to this theme, "Kids today do not have the same imaginative capabilities. They don't know how to play. They know how to play their computer, they know how to play their Nintendo, they know how to play their Play Station". During this same interview she also attributed the relatively silent nature of the children's play to a deprived home environment, "They come from depressed homes, where it's not a language rich environment... there's not books there, there's not conversations. There's TV, there's shouting, there's violence, but there isn't language development, there isn't conversation" (5/20/99).

Dana also blamed herself for the failure of the Centers to generate conversation-based play, specifically citing her lack of attention to design: "I would change things in there to try to make them apply the language they were learning... and there should have been a lot more change, in my opinion, in those Centers by me. I should have brought more stuff in, but I ran out of money, energy, so I just gave up. I wanted to have clothing for men. For the farming, I wanted to bring a lot more things for farming. When we had the fire truck, I wanted to make it sort of be like a fire. But I just did not have the energy or time or monies to do what needs to be done in there" (5/20/99).

These comments reveal that Dana and I held very different perspectives on play. My interpretation of the children's silent play was that children were in fact playing, but that the definition of play includes non only verbal but also non-verbal interactions, for example, where one child offers a piece of toy train and another child accepts it. My definition of play also included apparently non-interactive play, for example where children participate jointly in the global task of preparing a meal, but individually carrying out specific isolated tasks (arranging plates, bringing food to the table). The goals of the activity will determine the nature of the play; therefore, the fact that the

children's play was not rich in conversation is due not to the inability of the children to produce conversation, nor to the lack of attention or planning on the part of the teacher. Conversation generation was a goal of the teacher, not the children, and conversation did not arise in this play because it was neither a goal of the children nor perceived by the children as an effective means to achieve their play goals.

6. The failure of physical affordances to elicit conversation

Dana's strategy of stocking the Housekeeping with "stuff" such as fire trucks and clothing reveals an underlying faith that, although she is not directly eliciting certain behavior, (i.e.: by requiring or requesting that children converse more, or create imaginary play scenarios) she can shape play indirectly through intermediary objects. In this sense, Dana counts on these objects to provide affordances (Gibson, 1979) where certain objects "can elicit the perceived capacity of an object to enable the assertive will of the actor" (Ryder & Wilson, 1996). In other words, an affordance of an object is not situated within the object, nor within the subjective experience of the individual, but is rather a potential for a certain type of interaction between the individual and the object. Depending on the characteristics of both the individual and object, for example, some objects are "sit-on-able" or "get-underneath-able" (Gibson, 1979). While Dana never expressed her play area design explicitly in terms of affordances, her comments revealed that she was hoping that certain objects would afford a particular kind of play. In Gibson's terms, these objects were to be "play-able".

Despite Dana's regret that she failed to bring in enough interesting play items related to the curriculum "to make them apply the language they were learning," it was evident that the children did in fact play with these items, the hats and fire trucks and farmer clothes, but that this play did not involve conversation. In other words, she was successful in affording pretend play with these items, as she had hoped, but this pretend play did not turn out to be language based, or even as interactive, as she had assumed. For example, in the following segment, Jan and Emilio (two Spanish speakers) are alone in Housekeeping; they play separately, even though Jan is rather enthusiastically playing with toys Dana has introduced during her units on farmers and firefighters, and even though it seems that Jan attempts to engage Emilio in interactive play, unsuccessfully:

Jan, wearing a checked kerchief around his neck, is playing alone in the back of housekeeping. He walks over and looks in the toy chest, finds the fire hat, puts it on, and walks back to the mirror. He stands in front of the mirror, striking different poses, and then walks over to Emilio, who is sitting alone at the table playing with a board game, and says, “¡Hola!” Emilio looks up briefly and then looks down again without saying anything. Jan takes off his hat, taps Emilio’s arm, and says something like, “¡Olé, ándele!” (a playful expression of encouragement). Again Emilio ignores him. Jan puts the hat back on and Emilio looks up at Jan but makes no comment, and returns his attention to the game. (3/22/99)

Jan is in fact playing with these curriculum-related play items provided by Dana, but there is nothing inherent in the goals of his play that might afford naming these items, or speaking at all. In fact, the play is not even constrained by the items as Dana has planned; Jan is wearing the clothes of a farmer and the hat of a fire fighter, but his manner of swaggering and posturing suggest he is pretending instead to be a cowboy. The brief comments he makes to Emilio are hardly practicing relevant vocabulary, although these brief utterances are at least in Spanish, the official language. Emilio seems absorbed in his own activity, and Jan fails to engage him in any play interaction, suggesting that even with one child who actively tries to engage another, in the case where both children are fluent Spanish speakers, Spanish conversation fails to emerge in this play. In my interpretation, these children do not share play goals, and therefore there is simply nothing to talk about; the goals of the play do not afford conversation.

However, despite the initial failure of Dana’s carefully chosen physical affordances to elicit conversation during play, I noticed there were a few episodes of sustained conversation in the Centers. In the following sections I will explain how I coded and analyzed this emergent conversation, as well as the conditions that seemed to foster this conversation.

7. Defining, coding, and quantifying conversation

As mentioned earlier, I chose to use conversation as a unit of analysis because of Dana’s conviction that conversation was the means by which language learning progressed, and therefore her goal in designing her play Centers. Conversation is messy, difficult to conceptualize and hard to measure systematically (Duranti, 1997). Since it is a word used and loosely defined in everyday speech, it is important to clearly define from the onset exactly how I am defining conversation as a unit of analysis in this study. Duranti defines conversation as: “Sequences of relatively short utterances produced by

different speakers who are particularly attuned to when to speak and particularly careful in fitting what they have to say with what has just been said” (Duranti, 1997: 245). Duranti further describes conversations as comprised not of individual speech acts but of adjacency pairs, sequences of utterances made by different speakers, which form together interpretive frames. Within these interpretive frames, the second utterance is not only a response but also a reflection of the responder’s interpretation of the first utterance. These interpretive frames create intersubjectivity, which Duranti defines as “mutual understanding and coordination around a common activity” (Duranti, 1997: 255).

In order to quantify conversation, I coded conversation in terms of dialogic length, measured as the number of thematically-related conversational turns. Bakhtin (1986) argues that a conversational utterance goes beyond simply the signifying units of a language and is defined in terms of both the author and the addressee, related to both the preceding and following utterances by means of the speaker’s awareness of each other (Bakhtin, 1986). Drawing on Bakhtin’s notion of utterance, I define the basic unit of measure to be conversational “turn,” a unit of analysis based not on the linguistic unit (sentence, theme) but delineated by the interaction by the speakers. I count as one turn each time a person speaks to another, regardless of the length of the speech act or the number of topics identifiable in the speech act. Turns, therefore, are defined by a change in speaker or addressee.

The extent of the conversation is determined as the number of thematically-linked turns. I defined both play scenarios and themes based on Shklovskiæi’s definition of “fabula” and “sujet”. While these terms refer to literary devices, they apply well to children’s created play scenarios. In Shklovskiæi’s terms, fabula is the story, an overall view of what happens, while sujet consists of episodes which serve to advance, or better, complicate, the story. In this sense, sujet serve to make getting to the end of the fibula more difficult, to slow down the progression of the story through imposition of obstacles or emergence of unexpected events (Shklovskiæi & Sher, 1990). I use Shklovskiæi’s terms because I think they emphasize the functional relation of the themes (sujet) to the broader play scenario (fabula) rather than simply describe a set-subset relationship. In other words, in determining themes, I defined themes in terms of how they advanced the play scenario as a whole, an advancement in terms of play,

which emans that this advancement actually consisted of a complication to make the play more interesting, challenging, and satisfying.

I coded each group of thematically-related turns as a thread and consider define dialogic length in terms of thread length, which is determined by the number of speaker turns in each thread. I defined “conversational length,” then, in terms of dialogic length, which means the number of conversational turns per thread. In my analysis I considered as “sustained conversation” any thread that consisted of more than three turns. This definition is based partially on Mead’s claim that meaning exists in the interactions between two individuals. Mead’s examples suggest that an exchange between two people is essential, and argues that the responsivity of the second individual is crucial to the making of meaning. While Mead hints that the initiating utterance must itself be in dialogic relation, he does not go so far as to claim that this necessitates a third turn. But in my view, this step must be taken, as meaning emerges not among the utterances themselves but among the responses, “meaning can arise only insofar as some phase of the act which the individual is arousing in the other can be aroused in himself”⁴ (Mead, 1956).

I also considered in my definition of sustained conversation Mehan’s classic analysis of teacher-directed classroom discourse. This “teacher talk” conveys meaning in three turns of a triadic exchange pattern (teacher question, student response, teacher evaluation) (Mehan, 1979). Since this discourse pattern characteristic of teacher-child instructional interactions is a specific ritual designed to elicit displays of knowledge rather than to negotiate meaning, I limited the definition of conversation in this study to exclude this type of interaction. Therefore, I consider that dialogicity in a conversation is achieved upon reaching the fourth turn. It is at this point that the addressee decides how to respond to the initiating speaker’s reply, and the decision to respond is based on some desire to further the conversation beyond simply accepting the initiating speaker’s feedback. According to this coding scheme, only threads that last beyond three conversational turns qualify as sustained conversations.

⁴ Curiously, Mead’s writing which most closely approaches the necessity of a third turn, as exemplified by this quote, was found in a footnote to the text, suggesting that Mead himself considered this a peripheral concept.

8. Negotiation: The power of ambiguity and conflict

Out of the 21 Centers episodes coded, I found 42 instances of what qualified as sustained conversation⁵. The episodes coded ranged from 1 minute, 18 seconds to 22 minutes, 28 seconds in length, averaging 9 minutes and 44 seconds. Four of these episodes yielded no instances of sustained conversation, but the majority of episodes yielded at least one, but no more than 6 episodes of sustained conversation. Language use shifted overall throughout the year from predominantly English to predominantly Spanish. However, the percentage of sustained conversation does not seem to vary in any systematically way across time. Conversational length varied widely from 4 dialogical turns to a maximum of 91 dialogical turns. Dialogic density, which is defined as the number of dialogic turns divided by the segment duration in seconds, varied from 0 to 5.98 turns per minute with an average of 2.60 turns per minute. Dialogic density does not seem to increase or decrease in any systematic way over time. This suggests that, while children seemed to become increasingly willing to use Spanish during Spanish Center play, their degree of engagement in sustained conversation did not seem to change over time as the year progressed.

I analyzed all instances of sustained conversation in the Centers in terms of thread theme. It had become evident to me as I viewed and transcribed videotaped data that the most productive themes in terms of language production seemed to involve negotiation. To test this emerging hypothesis, I coded all thread themes in terms of whether they involved negotiation. I found negotiation of two varieties: negotiation of conflict (where children have incompatible goals and struggle to win the right to satisfy their own goals at the expense of others) or negotiation of ambiguous play scenarios (which might be defined better as negotiation of fabula, using Shklovskiæi's terminology). I collapsed both types of negotiation into one negotiation category, since I was more interested in negotiation than the details of the nature of the negotiation, and also because it was not always a clear delineation between the two. The common defining denominator, which is most interesting in terms of classroom design, is that in order for negotiation to occur, the curriculum needs to be flexible enough for either conflicting agendas or ambiguous play situations to emerge.

⁵ All Centers play coded took place during official Spanish Time. Nevertheless, any utterance, whether Spanish, English, mixed, or of unknown language was coded as conversation.

I found the total number of dialogic turns in play themes involving negotiation to be 315, almost double the number of dialogic turns involving non-negotiation themes⁶. This analysis demonstrates that, during Centers play, the most complicated and developed conversation seemed to emerge from the children's play when the routine was disrupted and the children found themselves in the position of negotiating an ambiguous reality or conflicting agendas. The children were compelled to employ language to express their agendas, sometimes invoking classroom norms to defend these agendas and/or attempting to ally the teacher and/or peers in the negotiation.

9. An example: A sustained conversation inspired by conflict negotiation

For example, the longest thread of sustained conversation (91 turns⁷) emerged as a conflict between two girls playing with dolls in Housekeeping concerning who could be the mother of which doll. This conflict situation required negotiation because each girl was able to articulate a separate and conflicting agenda, and attempted to win the support of other children and eventually the teacher. The stage is set for conflict right from the beginning, as Kathleen (English-speaker) attempts to enter Housekeeping where Ian (Spanish-speaker), Alberta (Spanish-speaker), Wilma (Spanish-speaker), and Sandra (English-speaker) are already playing. Wilma immediately invokes Dana's rule that only four children at a time can play in Housekeeping, a rule that is typically ignored, and which, in fact, Dana immediately overrides:

As Kathleen approaches the Housekeeping area Wilma, who is brushing her doll's hair, holds out her hand and says, in English, "There's four people. You can't come in here". Sandra, sitting nearby with her own doll, points to Wilma, herself, Ian, and Alberta as she counts in Spanish, "uno, dos, cuatro, cinco" (one, two, three, four). Wilma repeats, "uno, dos, tres y cuatro" and adds, "no puedes" (you can't). Kathleen at this point calls to Dana something unintelligible, and Dana's response, also partially unintelligible, ends with, "...que permitan que puedas. Kathleen, calmate" (... that they let you. Kathleen, calm down). (3/9/99)

It is unclear at this point why Wilma wanted to exclude Kathleen from Housekeeping, but as the segment continues it begins to seem likely that Wilma is

⁶ For the purpose of this analysis, all sustained conversational threads initiated by Dana have been factored out in order to assess the relative effect of conversational theme type on children's conversation among themselves.

⁷ The conversation presented here is an excerpt of the complete episode, which spread nearly throughout the entire segment (13 minutes and 15 seconds), interspersed with other exchanges. In fact, the initial

trying to defend the scarce resource of the highly prized dolls, since as soon as Kathleen enters and picks up a doll, which is lying unattended in the corner, Wilma protests loudly and is supported by Alberta, who is sitting nearby. It turns out that neither of these children claim the doll for themselves, but are defending the right of possession on behalf of Sandra, who attempts to resolve the conflict:

As Kathleen bends to pick up the doll in the corner, Wilma rushes over, calling excitedly, “No! No!” Alberta, who is sitting nearby in a chair with her own doll, reaches over and grabs the doll from Kathleen, saying, “Es de ella. Es de Sandra” (It’s hers. It’s Sandra’s). Meanwhile, Sandra herself comes over and takes the doll from Alberta, saying, “Sí. Es las mía. Ella las mía (sic)” (Yes. It’s the mines. She the mines). As she speaks, Alberta says something else, partially unintelligible, “Está hecha...” (It’s made...) Kathleen, who is now crouching in the corner, interrupts loudly, “Quiero un bebé!” (I want a baby!) and Wilma says, “Esta es de Sandra” (This one is Sandra’s) and Kathleen wails, “Quiero jugarlo (sic)” (I want to play it). Sandra motions for Kathleen to follow her off-camera, saying, “Uno minuto (sic)” (One minute) and as they walk off camera Wilma repeats, loudly, “No puedes! No puedes! No puedes!” (You can’t! You can’t! You can’t!). Sandra, off-camera, asks her sister Emily, in Spanish, “Emily, Kathleen quiere jugar con tu bebé” (Emily, Kathleen wants to play with your baby). When Kathleen returns to Housekeeping, Kathleen is carrying a different baby. (3/9/99)

Interestingly, while Wilma and Alberta seem to be so vehemently protecting Sandra’s doll from Kathleen, it is Sandra who mediates a solution, asking her sister if Kathleen can play with her doll, thus finding a doll for Kathleen to claim besides her own. Nevertheless, when Kathleen returns, we see that the conflict is far from resolved:

Kathleen enters Housekeeping carrying the new doll and says with a questioning intonation, “Soy la mamá” (I’m the mommy?). Wilma vehemently disagrees, “No. Yo soy la mamá porque yo vine primero”. (No. I’m the mommy because I came first). Kathleen says, “Yo soy la mamá de este bebé” (I’m the mommy of this baby) and Sandra seems to support her, saying, “Sí” (yes). (3/9/99)

Here the negotiation becomes more complex, as the underlying and mutually exclusive play agendas become clear. Wilma proposes her agenda (she has the right to be the mommy) based on her own interpretation of the rules (the first one to enter the Center has the right to be the mommy) and Kathleen proposes her agenda (she has the right to be a mommy) and her own, different interpretation of the rules (I can be the mommy of *this* baby...we will see later that this argument is one of particularity, she will argue that each child can choose only one baby, and this is hers). When Sandra throw her hat in the ring by voluntarily lending support to Kathleen, Wilma glances over at Sandra as if taking stock of her growing opposition, and launches her argument,

conflict, where Wilma tries to prevent Kathleen from entering Housekeeping, quite probably stems from

entirely in Spanish. This develops into an extended, multiple-turn, multiple-speaker discussion involving Wilma, Sandra, Kathleen, and Alberta as speakers and Ian (an English speaker) as a keenly attentive but silent participant:

Wilma glances over at Sandra and back at Kathleen, saying, “Porque yo vine aquí, yo vine aquí...” (Because I came here, I came here...) and Kathleen cuts her off, repeating, “Yo soy la mamá de este bebé” (I am the mommy of this baby). Wilma insists, “No, porque yo vine primero (at this point she turns and gestures toward Alberta and Ian) Ella y él fuimos primero (sic)” (No, because I came first, She and he, we came first) and then Sandra begins to point to each child (Ian then Alberta then Wilma) in turn as she says, “Este es la mamá de este muñeca (sic), ella es la mamá de este muñeca (sic), y tú es la mamá de este (sic)...” (He is the mommy of this doll, she is the mommy of this doll, and you are the mommy of this one...) Wilma cuts her off, and says, pointing to Ian, “Él fue segundo...” (he was second) and Sandra, speaking over her, continues, pointing to Kathleen, “Y ella...” At this point Wilma says, forcefully, “Mira. Ella no es la mamá” (Look, she is not the mommy). Sandra counters with, “Sí, a ella. A ella muñeca (sic)” (Yes. Of her. Of she doll). Wilma begins again to explain her point, “Porque nosotros (gesturing again to Ian and Alberta) fuimos...” (Because we were...). (3/9/99)

In this linguistically complex discussion, the children present and try to justify conflicting agendas for play. Sandra and Kathleen propose that everyone be the parent of their own baby (the particularity argument), while Wilma insists that as she, Ian, and Alberta were there first, they should be the only ones with parent roles (the right of first choice argument). Sandra, an English speaker, speaks carefully and clearly in Spanish, pointing to each person in turn and insisting that he or she is the father or mother of his or her own baby. The fight continues as, at this point, Kathleen interrupts Wilma to confront her directly:

Kathleen stands up and thrusts her baby doll in Wilma’s face, interrupting her and saying loudly in Spanish, “Yo soy la mamá de este bebé” (I’m the mommy of this baby). Wilma rejects this idea, now looking directly at Kathleen and following the same line of reasoning as before, “Tú, no vino ustedes primero, segundo”. (You, you guys didn’t come first, second...) Her statement is unclear, but it seems she is now implicating Sandra and arguing that neither of them came first or second to Housekeeping, losing the claim of the first two children to arrive to claim the mother and father roles. Kathleen cuts her off, repeating, “Yo soy la mamá de este bebé” (I am the mommy of this baby) and Wilma insists, “Tú no eres la mamá. Yo vine...” (You aren’t the mommy. I came...) but Kathleen cuts her off, switching to English, “I’m the mom of this baby”. At this point Wilma looks over at Dana, who is outside of Housekeeping, and calls out, “¡Sra. Simone! ¡Kathleen está hablando en inglés!” (Mrs. Simone! Kathleen is speaking in English!). (3/9/99)

Interestingly, as soon as Kathleen switches to English, Wilma turns her in to Dana, as Dana has clearly established throughout the year that Spanish is the only

an earlier doll-related skirmish.

language to be spoken during official Spanish language time, and has consistently chided children throughout the year for disobeying this rule. This is the second time during this segment that Wilma has invoked an official classroom rule, as she earlier attempted to exclude Kathleen from the play by invoking the rather weakly enforced “four-person-at-a-time ruler.” This time Wilma has invoked a much more powerful rule, but, as Kathleen and her ally Sandra walk out of Housekeeping to lobby themselves for Dana’s support, it becomes clear that Dana, while she does insist that the girls repeat their plea in Spanish, seems to support Kathleen’s agenda:

Kathleen and Sandra walk out of Housekeeping to bring their grievance to Dana. At first Kathleen says something unintelligible, and then Sandra says, beginning in Spanish and then lapsing into English in mid-sentence, “Wilma dijo, yo, to be the mom of all the babies” (Wilma said, I, to be the mom of all the babies). Dana insists she repeat this in Spanish, “Tú me sabes decir esto en español” (You know how to tell me this in Spanish). Sandra begins, inexplicably substituting Alberta for Wilma this time, “Alberta dijo...” (Alberta said) and Dana cuts in, continuing the sentence in Spanish, “dijo que ella puede ser...” (said that she can be...) and stops there while Sandra, who has continued the sentence along with Dana continues, “que ella puedo (sic) ser la mama de todos las muñecas” (...that she can be the mommy of all the dolls). Dana says, “No quieres que ella haga la mamá?” (You don’t want her to be the mommy?) and Sandra responds, “No” and Dana continues, instructing, “Entonces, dile esto. ‘No puedes hacer tú la mama’” (Then, tell her this. ‘You can’t be the mommy’). (3/9/99)

Sandra is successful in lobbying the support of Dana, but Dana apparently does not fully understand the complexity of the argument, reducing the negotiations to a simple argument over whether Wilma can be the mommy. Sandra is not arguing that she does not want Wilma to be a mommy, as Dana’s instructions suggest, but is proposing a more complex arrangement where each child is allowed to be a mommy. Dana, misinterpreting the problem, offers a simplistic solution, which takes the form of a simple scripted comment. When Sandra and Kathleen return to Housekeeping, Sandra does make some attempt to recite this comment:

Kathleen returns to Housekeeping clutching her doll and sits in a chair, looking directly at Wilma, who is playing on the floor with her doll. Sandra enters, apparently attempting to repeat verbatim the instructions of Dana, “No puedes...no quiero que hagalo (sic)...” (You can’t...I don’t want you to do it...) but she seems unable to reconstruct the entire phrase and Wilma says, “No quiero luchar...” (I don’t want to fight...) until Mark, who has been standing nearby, joins the fight, saying something unintelligible in English that concludes with, “...the mommy first”. At this point Dana calls into Housekeeping, “¡Mark! ¿Qué es lo que tú haces allí?” (Mark! What are you doing there?) Mark walks off in her direction, continuing the argument in English, “I got here first. I’m the daddy of all the babies”. Kathleen gets up and follows him, calling out, “Mrs. Simone said that...” (the rest is unintelligible). (3/9/99)

It is unclear why Mark (English-speaker) joins the argument at this point, as he was not in the original debate. Nevertheless, it is clear from his argument, which exactly mirrors Wilma's, that he has been paying attention to the debate and wants a stake as well. Dana, Mark, Sandra, and Kathleen continue this unintelligible conversation outside of Housekeeping, and soon Kathleen, closely followed by Sandra, return to the Housekeeping. Alberta enters as well, sitting in a nearby chair. She watches as Kathleen and Sandra approach Wilma and reinitiate the negotiation, this time clearly invoking the authority of Dana:

Kathleen says in English to Wilma, who is still sitting in the floor playing with her doll in a crib, "Mrs. Simone said that you can't be the baby of all the babies (sic)". While she says this, Sandra translates her words into Spanish, "Sra. Simone dijo, Sra. Simone dijo que tú no eres la mamá de todos los bebés" (Mrs. Simone said, Mrs. Simone said that you are not the mommy of all the babies). Wilma tells her, in English, "Kathleen, you're giving me a headache". Kathleen continues, "Mrs. Simone said..." and this time Wilma interrupts her, pointing her finger at her and repeating in English, "Kathleen, you're giving me a headache". Sandra begins to say to Wilma, in English, "You're the mommy of this baby..." while Kathleen kneels by the crib, cutting Sandra off forcefully, "Take her out! Mrs. Simone said that if you be all the babies...if you don't let us have...be...the babies of all the mothers (sic), that's what she said!". (3/9/99)

Until this point Kathleen has allowed Sandra, the more proficient Spanish-speaker, to act as her spokesperson, but, perhaps because the language has shifted to English and she feels more confident, Kathleen now interrupts Sandra's attempt to recapitulate her argument with her own rather aggressive English invocation of Dana's authority. Soon afterwards Kathleen yells, "I'm telling!" and runs out of Housekeeping, returning shortly with Dana, who sits down and begins to chide the children, addressing the children as, "Mis quejones..." (My complainers) and continuing to chide them for disorderliness, fighting, and complaining, but without any mention of the doll conflict negotiation:

Dana says, "¿Qué decimos cuando jugamos?" (What do we say when we play?) A chorus of a few unseen children call out, "Español!" (Spanish!) Dana responds "Sí, pero no solo esto...¿qué dijimos?, que tenemos que ¿qué?" (Yes, but not only this, what did we say, that we have to what?). A few kids call out, "hablar" (talk). Dana agrees and expands on this response, "Que tenemos que hablar, uno con el otro" (that we have to talk with each other). She continues with a rhetorical question, "¿Ustedes están hablando?" (Are you talking?) A few kids respond, "No". Dana continues, "¿O peleando?" (Or are you fighting?) At this point there is a brief pause, as she waits for a response but there is none, so she continues, "¿y quejándose?" (and complaining?) Again, there is silence from the children, and after a brief pause Dana continues in an affirming tone, as if they had responded, "Ahhh, peleando y quejándose". (Ahhh, fighting and complaining). (3/9/99)

In these instructions Dana sets up a clear dichotomy between what they should be doing (talking with each other, in Spanish) and what they are doing (fighting and complaining). Clearly fighting and playing are not compatible, in her opinion. While Dana played a crucial part in requiring the children, especially Sandra and Kathleen, to speak Spanish, she lost the opportunity to engage the children in a meaningful and complicated negotiation (in Spanish) by resisting their attempts to draw her into the negotiation and by insisting on viewing their conflict as inhibiting, rather than generating, meaningful conversation.

10. Language as object, language as action

This conflict is one of several key conflicts through the year which, when analyzed as a whole, yield a representative profile of language productive conflict. There are multiple players who present agendas that are mutually incompatible (in this case, one child can not be the mother of all the babies and still allow each child to be the mother of a baby). These players are highly motivated to present and defend their agendas (in this case the dolls are extremely high stakes, as it became obvious throughout the year that the dolls were very popular with many of the children). There are others present whom the players hope to win over as allies in their struggle; in this case, Sandra and Alberta are the peers whom the players recruit with varying degrees of success as supporters. The players eventually bring their case to the teacher, who throughout the year proved to be a very attractive ally, for the obvious reason that she is the most powerful. In Dana's own words, "I am the magnet, where they all come to, I'm that sun. Not because I'm better, but because I'm the teacher, and in Kindergarten the teacher plays a very important role" (5/20/99). In addition, this conflict negotiation also benefits the silent participants, Ian and Mark (who started out silent and later entered the fray), who as silent stakeholders quietly and attentively observe the complex language generated by the active children, as well as the language modeling provided by the teacher.

However, not all negotiation involved conflict. Another theme which produced sustained conversation involved negotiation of the shared play reality. The children's play tended to be fluid and lacking internal story coherence. The play themes which elicited sustained conversation tended to involve not simply pretend social play, but the

negotiation of ambiguous play-reality or the need to coordinate a group play activity. I found 6 instances where the children engaged in sustained conversation while negotiating play reality (factoring out those negotiations involving conflict). Examples included deciding where to place dishes and cups on the table, determining who would sit where at the “dinner” table, and discussing how to work the new toy cash register. I considered non-conflict negotiation to be any discussion presenting more than one point of view on a common activity which did not include statements of disagreement or challenge.

11. Implications for design: Designing for ambiguity

Since Dana’s initial strategy for eliciting conversation during play was to stock the Center with attractive toys, the finding that children tended to produce most extensive conversation during negotiation presents a useful insight into program design. Dana’s indirect design of the play Centers suggests a reliance on the ability of these play objects to afford not only a certain type of play (social pretend play), but also a certain type of speech (conversation using target vocabulary). While some definitions of affordances conceptualize them as relatively passive, in terms of possibilities for action (Norman, 1999), others suggest that designing affordances can be clearly directive, even manipulative; “Providing tools that direct our activity, but feel enabling rather than restricting, is an important goal for designers to keep in mind” (Karat et al., 2000). It seems that Dana’s indirect design of the play Centers, but with a very clear and specific goal in mind for the children’s activity in these Centers, reflects the kind of design philosophy reflected in this latter approach.

As demonstrated by the numbers of children flocking to the Centers to play with these toys⁸, it is clear that these objects did afford play, but in fact failed to afford much sustained conversation, and therefore failed to achieve their design goal. Writing about people’s use of new technologies, Hutchby uses affordances to express the relationship between people and objects, “Affordances are functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object” (Hutchby, 2001). He argues that it is important to recognize both the degree to which

⁸ The maximum number of children in each of the Centers segments coded, on average, was 5, well above the official limit of 3.

possible actions are shaped by an object (it's much easier to kill a platoon of soldiers with high speed bullets than a dozen roses) and the degree to which an objects use, no matter the intended design, is shaped by people's agency (the telephone was originally marketed for women as an efficient way of managing household affairs; when women decided to use it differently, as a social tool for chatting, marketers followed their lead and changed their market strategy accordingly). In terms of Dana's classroom, it is clear that, while her open play area and attractive toys designed to mediate pretend social play were certainly more effective in generating conversation than, say, desks situated in rows with children silently filling our worksheets, the children did not use these objects in the way anticipated by design. As with the telephone, these users appropriated these objects for their own interests.

Dana may have predicted the children's use of these play objects based on her own perception of them. Recall that Dana explicitly viewed conversation as a form of play ("We're having a play right now, conversing with each other"). Implicit in the definition of affordances, however, is relationality; that is, objects have different affordances for different species. A surface that might afford walking for one species may not for another (Gibson, 1979). Dana's case, along with many failed design efforts, illustrates that this relationality differs not only among species but among individual humans. The children did not converse during play in the way that Dana intended not because they resisted or refused, or because they lacked certain cultural or family resources, but at least in part because they simply did not perceive the affordances that Dana perceived.

Norman argues that designers, in their fascination with designing affordances, neglect to use two other powerful tools: constraints, which can be physical (real impossibilities), logical (deduced impossibilities), and cultural (conventions) (Norman, 1999). The dual language classroom consists of artificially imposed "Spanish Time" and "English Time". Dana imposed cultural constraints, or arbitrary classroom conventions limiting language use, to compensate for a lack of real constraints which might, in a different situation, limit language use out of the sheer impossibility to communicate in the child's more familiar language. In the Centers, these real constraints were no more available than in the rest of the classroom. Further, the activity consisted of free interactions among children rather than the teacher-centered and teacher-directed

activities characteristic of the other classroom domains. Therefore, in Centers Time Dana's power to impose artificial constraints, what Norman describes as conventions, was diminished.

Hunt describes a similar situation in the design of user interfaces for web-based discussions. He argues that writing is not, in many ways, an ideal format for conversation; physical aspects of face-to-face conversation, like facial expressions, pauses, and the immediacy of the moment facilitate conversation, and their lack makes conversation difficult (Hunt, 1996). In many ways this parallels the situation of nonnative speakers in a situation where they must use their weaker language; lack of linguistic resources that speakers are usually able to draw upon, such as extended vocabulary, rapid access, understanding of subtleties in meaning and social conventions, make communicating in the second language more demanding. While Hunt makes the case that well-designed interfaces can overcome these barriers and afford conversation, he reminds us that there are internet discussion formats that, despite the limitations of the media and poor design of the interface, persist. He attributes this to the strong motivation among the members to communicate; "It's possible for...people with powerful motivation to discuss shared interests to find their way around these difficulties" (Hunt, 1996). Similarly, it is the sheer need to communicate that allows us to communicate in a second language (thus developing that second language), despite the inconveniences and difficulties presented by the unfamiliar and cumbersome medium.

The element of necessity, whether to use a cumbersome written medium or unfamiliar language as the medium of communication driven by the need to communicate, to achieve some goal mediated by language, highlights what I consider to be the crucial design flaw in Dana's Centers; a confusion of means and ends. Dana's play Center design strategy casts play as the means and language as the ends, in other words, play is expected to produce language. However, the fact that conversation emerges in the form of negotiation suggests that language, rather than the end, is the means by which some personal goal is achieved. Language is by nature an activity, not an objective to be achieved nor an object to be studied. Wittgenstein argued that words are not conveyors of thought, but as actions themselves; "Words are deeds" (Wittgenstein, Wright *et al.*, 1984). He conceives of language as a game, in which

words, not predisposed to meaning, have meaning only in their action at the moment (Wittgenstein & Anscombe, 2001). It is in negotiation that words become deeds, a means to an end. Conversation is the byproduct, never an end in itself. Therefore, instead of designing for conversation, we might consider designing for negotiation.

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