Storytelling "in theory": Re-imagining computational literacies through the lenses of syncretism and translanguaging

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Abstract: This inquiry is guided by a curiosity around the stories that teachers tell about their students, content, and pedagogical approaches focused on data and computational literacies. We present a form of storytelling *with* theory as we apply theories of syncretism and translanguaging to empirical vignettes about teachers' sensemaking. We also present a form of storytelling *of* theory, drawing on teachers' stories to help us better understand how these theories are related to each other. We bring two teachers' stories into conversation: one from the Writing Data Stories (WDS) project and the other from the Participating in Literacies and Computer Science (PiLa-CS) project. Both projects utilized translanguaging and syncretism in their conceptions and designs, working with teachers to design for expansive forms of data-based and computational literacies.

Introduction

Theories of syncretism and translanguaging highlight that people use diverse language, culture, and literacy practices to make sense of the world (Gutiérrez, 2008; Vogel & García 2017). Translanguaging and syncretic forms of design and pedagogy afford educators ways of leveraging learners' existing sensemaking resources to disrupt power dynamics that mark (or leave invisible) certain forms of sensemaking as unacceptable (or normative). Our past work has explored the potential for syncretism and translanguaging to inform more expansive forms of learning within computing and data science education (Ascenzi-Moreno et al., 2020; Lopez et al., 2021). These domains are often presented as objective, neutral, and only interpretable according to Western logics. Translanguaging and syncretic pedagogies suggest that computing and data can be presented to students as additional literacies that can work alongside and in interaction with students' existing linguistic and cultural practices to help express themselves and understand the world. While our focus has been on bi/multilingual students, these pedagogical approaches are meant to engage a diversity of students who have been marginalized or othered in typical school settings.

In this paper, we analyze data from two teachers' engagements with these theories and pedagogies, as we heard in their storytelling reasoning about disruption, improvisation, and attention to students' culture and language. We contend that even as teachers leverage power to disrupt boundaries, the work of equity does not end there. Along with inviting student voice, culture and language, re-listening helps to negotiate trust and power and helps inform how knowledge and language practices become unmarked. Additionally, we also interrogate how teachers' stories attend to student language and culture and contribute to theoretical and pedagogical understandings of syncretism and translanguaging in computing education. Undergirding our methods and analysis is an interest in storytelling. As learning scientists, we seek to expand accounts of learning that consider historicity, social practices, and culture, and to do so in humanizing ways. Storytelling affords creative ways to share nuanced and complex meaning and emphasizes the salience of literacies in STEM spaces. As researchers, we work to co-construct stories that help inform understandings of the nature of learning and the power of equity-oriented pedagogy. To do so, we focus on pedagogical design, such as the reorganization of academic and everyday literacies, to explore teacher sensemaking.

Theoretical Framework: Theories as story

We bring theories of syncretic and translanguaging into conversation with each other in a rather syncretic way, to highlight points of alignment and tensions. Rooted in theorizing the experiences of multilingual and nondominant learners, both theories emphasize how language and culture are fluidly negotiated in meaning making.

Syncretic theories of literacy originated in the field of linguistic anthropology to examine the non-deterministic relationship between language, culture and literacy and debunk long held beliefs about multiculturalism such as language indicates culture, and people can only inhabit one culture at a time (Duranti & Ochs, 1997). These

scholars demonstrated that literacy practices are complex, socially situated, and draw on a multiplicity of language and cultural practices: "when different cultural systems meet, one rarely simply replaces the other," (p. 173). In conversation with Duranti and Ochs at the time, Gutiérrez was inspired by the ways language-minoritized speakers drew on a multiplicity of powerful literacies and extended these ideas to contend with critical perspectives of learning (personal communication). She felt compelled to show the expansiveness of *syncretism*, the bringing together of two or more ostensibly contradictory or distinct domains, in opposition to Vygotsky's (1987) use of syncretic as the most underdeveloped form of learning. Drawing on the multidisciplinary history of syncretism, Gutiérrez demonstrated the rigor and generativity in migrant youths' literacy practices, actively resisting deficit narratives that these ways of knowing were in any way underdeveloped (2014).

Consistent with the boundary-defying orientation of syncretic theories, translanguaging theory describes how language use defies social categorizations of languages (Otheguy, García, & Reid, 2015). *Translanguaging* (Vogel & García 2017) demonstrates that named languages (e.g., "Arabic", "academic" or "vernacular") are social and political constructs, not cognitive ones. As one of the most notable translanguaging scholars in the US context, García developed her conceptualizations of translanguaging from the work of Welsh educationalist Cen Williams who originally developed the term to describe the use of Welsh and English in the same school lesson to counter colonial monolingual efforts to erase Welsh (Lewis, Jones, & Baker, 2012). García's work on translanguaging in the US was importantly influenced by the context she was researching in, engaging in descriptive inquiry in bilingual classrooms with bilingual teachers (García & Traugh, 2002). Descriptive inquiry with teachers emphasized understanding students' sensemaking in relation to their friends, adults, and various contexts, looking at the student as a full person in understanding their work. This humanizing research in conversation with the language politics highlighted in the Welsh origins of translanguaging laid the groundwork for García's work on translanguaging theory in the US context, focusing on the expansiveness and fluidity of bi/multilingual speakers' language practices.

The pedagogies derived from these theoretical perspectives foreground how teachers can disrupt barriers between learners' lived experiences in and outside of classrooms. Syncretic pedagogies (Gutiérrez, 2008) recognize that hierarchies between academic and everyday knowledge are also socially and politically constructed and resist this hierarchy by emphasizing and privileging hybridized forms of knowledge that emerge. Translanguaging pedagogies resist the social construction of named languages by encouraging learners to openly leverage their full linguistic repertoires. These pedagogies encourage students to use their full linguistic and knowledge repertoires, developed across home and school contexts toward more equitable and consequential learning (Radke et al., 2022).

Methods

Storytelling Across Contexts

This paper brings together stories about teachers across two projects–WDS and PiLa-CS–that both worked with teachers to support bi/multilingual students' learning in computing related subjects. Partner teachers were encouraged to design learning environments that supported students to leverage everyday language and knowledge repertoires for expression. Our projects took up constructs from translanguaging and syncretism as guiding pedagogical principles, to socioculturally situate computing as literacies within the multiplicities of literacy repertoires learners can leverage in their expression. These projects illustrate the application of these theories in relatively new domains (computing) and contexts (formal yet interdisciplinary school settings). Situating computing as literacy helps to foreground the ideologies and power dynamics that shape these means of expression, which is often hidden in a depiction of computing practices as objective logics to acquire. As expansive theories of learning and language, syncretism and translanguaging challenge these a priori conclusions.

WDS and PiLa-CS have both helped teachers develop projects where computing is integrated as an expressive and sensemaking resource within other disciplines (e.g., math, language arts, and science) through the facilitation of online summertime teacher learning communities (TLCs). In both TLCs, teachers were encouraged to incorporate authentic discourses and personally relevant programming and data science tasks for their students. WDS's TLC took place in summer 2020 and focused on introducing teachers to the data analysis tool CODAP and reviewing model curriculum units concerning nutrition and climate using large-scale data sets. PiLa-CS's TLC occurred in summer 2021 and focused on sharing an approach to designing which encouraged teachers to juxtapose literacies students might have developed at home or in their communities, with literacies from disciplines and computing communities as they designed a unit for the upcoming school year. Our analysis involves sharing stories from two focal teachers across these projects: Calli and Sandy (pseudonyms). Both teachers participated in a summer TLC and then extended their work into the following school year by implementing new units they designed. Calli extended the nutrition unit in CODAP from the WDS TLC to a new unit about candy advertising and Sandy implemented a unit she designed around the ethics of hacking that she initially designed during the PiLa-CS TLC.

Data Collection and Analysis

Data collected from both projects were used for this analysis including 1) observations and recordings from both TLCs, 2) pre- and post-interviews with Calli and Sandy, 3) artifacts teachers made in planning their lesson, and 4) student work from Calli's lesson. We used this data to develop empirical vignettes (Gutiérrez et al., 2019) demonstrating how teachers reflected on their pedagogical designs and learnings. This method foregrounds the power of storytelling as a form of analysis that broadens how we talk about data and computational literacies.

Authors 2 and 1, postdocs on WDS and PiLa-CS respectively, met weekly over an 8-month period to develop these empirical vignettes about the focal teachers. The initial vignettes consisted of three parts: (1) an introductory story about each teacher, (2) analysis of what each story revealed about syncretism, and (3) translanguaging. The aim in empirical storytelling was not to evaluate whether or not teachers "got" these theoretical concepts as evidenced in their narrative. Rather, in "sister team meetings," the authors identified translanguaging and syncretic elements that surfaced in (1) how these focal teachers talked about the design of their lessons (2) what teachers shared about implementing these lessons, and (3) what clues these teachers' pedagogies provide us about how these theoretical traditions are related to each other. The history of these theoretical traditions became a salient part of this analysis, supported especially by the intergenerational analysis with senior PIs on the projects and foregrounding the human and historical contexts of theory building that often remain hidden in scholarly writing.

Findings: Stories with Theory

Vignette 1: Calli, Data Analysis, & Lived Experience as Data

Calli was a middle school STEM teacher who identified as Mexican-American and bilingual (Spanish and English). She participated in the TLC with WDS with the goal of having her students "look at data meaningfully and feel comfortable using this tool [CODAP]." For Calli, issues of racial justice and equity were integral to teaching STEM; she described science as "a social endeavor that involves institutions with systemic inequities and historical racism" and reported that she "[has] felt uncomfortable with how little culture has been integrated into science education." She framed data literacy as "so important for [students'] critical thinking and also advocating for themselves and their community." Calli took up WDS's use of CODAP, data visualizations, and nutrition-related content to design a unit for her students around a seasonal topic, Halloween, so they could analyze *and* construct a data set. Her storytelling–across both her learning design and the implementation–lifts up her sensemaking about data literacy.

Calli's Storytelling about the Learning Design

Drawing from her experience in the TLC, Calli worked with a colleague to design a Candy Ad unit, which she taught in the fall of 2020. She wanted to make ideas from the TLC "more festive" and used a Halloween theme. In the unit, students discussed their favorite candies, how they were introduced to them, and how professional marketing teams use focus groups to sell products. At the time, all instruction was online and Calli described the unit as an "opportunity for students to connect with others" including their own cohort and people in their households. These connections traversed boundaries of school and home in a time of remote learning and social distancing.

Along the same vein of boundary-crossing, Calli invited students' lives as data into their practices of data collection. In her "hook" or "launch" activities that introduce new topics, questions, or themes, Calli "[collected] data from students' own experiences." She stated that "no matter who you are, you're bringing in knowledge, you're bringing in your own data and connecting that to new understandings," which she believed can "support student knowledge and self-esteem in STEM areas." Calli echoed this support in a later interview:

> The reason why I've stayed engaged is because of the actual name of the project [...] and also the the mission in a sense of the project, which is–which I interpreted as teaching our students to not–to build confidence in reading data, becoming data analysts in themselves, and being becoming familiar with each step, of developing an inquiry question, figuring out a way to collect data that can possibly answer it, revising if it's if it's clunky, and then being thoughtful when making conclusions about it.

Calli repeatedly emphasized students' agency in the practice of data literacy. For example, her language around "confidence" and "becoming data analysts themselves" was also reflected in her desire for students to "be researchers themselves and they're not passive about it."

The Candy Ad unit allowed students to engage in disciplinary practices of data literacy for statistical inquiry (Wild & Pfannkuch, 1999). Students were asked to identify candy that would sell best in their local context. Students'

planning included developing questions for focus groups of eighth grade peers, friends, and family. Then, using Google Forms, students designed a survey to generate data. For analysis, teachers imported the Google form data (.csv file) into CODAP for students to visualize and interpret the survey results. Students then shared observations and inferences as evidence for their claims and wrote a Claim-Evidence-Reason (CER) statement "explaining why they think their candy would sell successfully at a local level based on their CODAP analysis." Calli designed this unit to counter "what usually happens" in STEM classrooms, where students use "expert-collected data from a professional." Instead, Calli "wanted them to go through the process of being a researcher…being someone out in the field collecting information and collecting input."

Language emerged as a theme in Calli's storytelling about her design. In the TLC, Calli critiqued her school's "focus on English as the only way to communicate information in our classroom" and emphasis on English monolingualism to prepare students for high-stakes testing. In contrast, she argued that "disruption" can happen "at the classroom level when you allow students to reflect and share their knowledge in other languages, or you know discourses, with each other in other languages." For her, this practice "support[s] learning even if it's not in English." She contrasted her expansive approach to language with less productive approaches. Calli reflected:

> Providing opportunities for either more casual discourse, or discourse in their native language, I think does the opposite of limiting, right? It opens up opportunities for them to describe things that maybe they don't have access to in …academic language …yet. So instead of saying "well if you're not going to communicate in this way, I'm not interested in hearing it." Rather than that, we're going to support that skill, but at the same time provide you opportunities to share those observations that maybe you're not ready to, or not as accessible to you…without shutting it down.

She reflected on her students' language practices both in and out of the classroom, emphasizing that students have wide repertoires of language that they should be allowed to access. She affirmed that students translanguage all the time, and that limiting their communicative repertoires amounts to "shutting down" their ideas. These reflections connected to the focus on audience in her design, which she found important for data literacy: "that's such a huge component–who's your audience and how are you getting them to buy in on your claim for this dataset?" Students shared a link to the survey with family and friends via social media or email. However, if the survey was "not in the language that they read," teachers offered strategies to "get around that" like administering the survey "interview style" in a different language, then manually "fill[ing] out the form to submit" it to the class dataset.

Calli's Storytelling about the Implementation

In her implementation, Calli found that students did not use the data in their ads in the way she anticipated, identifying the candy most people enjoyed and advertising for it. Instead, Calli found three distinct approaches:

> Number one we had students who said, "Hey I'm going to just go off the data. What the data says is the most popular, I'm going to go with that." The second group of students was like, "Everyone is not in their right mind. They don't know what's good. I'm just gonna go with what I know everyone actually wants and not our focus group. Our focus group is wack, that data is wack. I'm not going to go with it." And then the third group were the ones that were like "Yeah, this and that, but I just want to be a creative mind, and I wanted to do what I want." So they were funky. You know, the funky creative minds are like, "I want to do something weird. I want to do something unique."

Calli acknowledged that "sometimes there was a contradiction with [students'] C-E-R paragraphs and their ads." Rather than evaluating their work as wrong or unsuccessful, she affirmed her students' sensemaking: "They're like, 'okay well if I were to go off the data, this is what I would say, but if you give me the opportunity and say it's whatever I want, I might not go that route.'" Students drew different conclusions and used different rationales to make sense of their data across assignments. While their C-E-R paragraphs might have taken on a more traditional "majority rules" logic, students took up the ad space more expansively by integrating scientific practices of data literacy (data generation, planning, analysis/trends) with their everyday knowledge of candy and their audience. Calli designed for students' lived experience to be used in data collection and came to see how students leveraged these experiences in their analyses. In doing so, she ruptured boundaries between the scientific and everyday by positioning students' cultural repertoires and everyday knowledge as generative for data-related sensemaking.

Vignette 2: Sandy, Hacking, & Centering Student Language

Sandy was a white, monolingual English speaker working as a librarian in an elementary school with predominantly

bi/multilingual Asian and Latinx students. As a librarian Sandy saw each student at her school once a week for a library and technology class and joined PiLa-CS to learn more about translanguaging because, "I don't really understand it yet. But I do work with, with a large enough population, and I can see it being very helpful for them." In the TLC, Sandy co-designed a unit on hacking for 3-5th grade students that she implemented that fall. In the unit, students developed a hacker's code of ethics for their classroom community. This syncretic text put students' hacking literacies into conversation with those of computer scientists. Sandy's pedagogical reasoning and her students' engagement illuminates generative tensions in centering student language and ideas in academic spaces.

Sandy's Storytelling about the Learning Design

During the PiLa-CS TLC, Sandy and her fellow teachers were asked to design curricula that incorporated literacies from computer science (CS), the teacher's disciplinary home (e.g., library), and students' home communities. Sandy grounded her unit in students' home literacies that had frequently been brought up in her class. Sandy shared how her idea for a unit on hacking came from students' contributions in her class.

> [This] is the inspiration of the conversations my students were having that made me want to design this unit. Basically, every time I, if I mirror my screen onto their devices or if we're remixing a project in scratch and I change something that is that they think they owned and created and it's safe, and then I go in and change it, it's always a kind of, it turns into was a huge disruptive conversation of like, "Oh, you're hacking me." "Why are you doing that?" "How are you doing that?" And then it turns into how maybe their family members got hacked in there, in the game play Roblox. This is about 3rd to 5th grade where these conversations are happening. So, since they happen so consistently, with every lesson almost that we do, it almost always comes up, I thought it would be a good idea to design a unit that really gets into, "What is hacking? How does it look in our community and do you think it belongs in our classroom?" So that students can really get a realistic view of what they're talking about. The PiLa-CS approach to designing the unit really helped me to try and address all layers of the student learning experience. So having their initial interest in this topic and then bringing it into the disciplines of the classroom was a very, a very gratifying way to design the unit for them because I feel like they're going to be engaged right from, right from the beginning. It feels like they're designing the lesson instead of me.

Addressing hacking was a deliberate and consequential design choice. Sandy had previously positioned students' comments about hacking as ancillary to the focus in her class, but they became the content focus for the unit. Thus, she centered language and ideas students regularly brought into her classroom that had previously remained at the margins. Sandy shifted from positioning students' conversations as "a huge disruption" to seeing them as productive to the point of commenting "it's like they're designing the lesson for me." She quickly and confidently identified regularity in students' comments about hacking, sharing numerous examples like, "'Oh you're hacking me.' 'Why are you doing that?' 'How are you doing that?'" These comments are examples of students translanguaging, using home language practices to make sense of classroom activity. When Sandy took control of their screens, it reminded them of being hacked, hacking someone, or observing hacking in a video game. In their comments students raised concerns about hacking and issues of control over digital spaces. Sandy previously saw these utterances as unrelated to her class, which is why she felt the need to control students' screens to focus them on the content at hand.

Sandy's unit engaged students in the question "What is hacking?" through a collective defining process. In doing so, she elevated her students' knowledge and ideas about hacking. By asking "How does [hacking] look in our community and do you think it belongs in our classroom?" she recognized that students believed that hacking was happening in their classroom and had strong beliefs about whether it belonged. Since the topic had previously been dismissed, students had not been given a chance to shape how hacking operated in their classroom. Sandy moved from observing translanguaging in her classroom to implementing pedagogy that supported translanguaging. By centering the unit on a topic brought to her attention by student language practices, Sandy signaled to her students that their full language repertoires were welcomed and their ideas about CS were consequential.

Sandy's Storytelling about the Implementation

When Sandy implemented this unit in her classroom, however, her expectation for having students "engaged right from, from the very beginning" did not match the ease of feeling like they were "designing the lesson instead of me." In fact, during Sandy's follow up interview a year later, she shared that there was some initial push back from her students when she first wrote the word "hacker" on the board:

> Even the word hacking. When I first put the word hacker on the board, they thought they were in trouble. They thought I was gonna be trying to say "someone hacked somebody's iLearn account and now you're in a lot of trouble." Like but they would kind of timidly uh approaching the idea, because they also, it was like, "I don't really want her to know what I know, because I feel like what I know is gonna get me in trouble," you know, like, "I don't want to get in trouble for hacking someone else's account because I thought it was funny." Or, "I don't want to get in trouble for knowing what hacking is when I change the code to this game, because then they're not going to let me play it anymore." So, it kind of, it took a minute.

Sandy saw that students had knowledge of hacking, but initially they did not want to share it in class for fear of getting in trouble. They were hesitant to engage with the initial goals of the lesson: to build off of students' knowledge to develop a hacker's code of ethics for their classroom community. While Sandy made the syncretic move to attend to her students' translanguaging practices and center their thinking about hacking in an academic space, her students did not yet trust that they could engage openly and honestly.

Sandy worked to gain students' trust in multiple ways. One way was asking students questions that made hacking the object of study and analysis rather than "spotlight them" or draw attention to their previous hacking activity: "I wouldn't use the word 'you' I wouldn't say. 'What did you do?' [...] I would say, Ah, 'Based off of the video, What does hacking mean?'" Sandy described taking the pressure off students to reveal things about their experiences with hacking that they were uncomfortable sharing by asking them to reason about other people's hacking practices. Focusing on what other people did and what her students might do in the future kept the responsibility off of youth in the present and only put it on them for speculative, future actions. This finding highlights tensions that can arise with the implementation of syncretic pedagogy. Students may contest how and what is a viable and safe unit of analysis in a classroom. Putting different literacies in conversation together can bring up unanticipated conflict and illuminate other assumed relations necessary to engage in this work, like trust.

Based on these interactions, Sandy identified an emergent goal for this unit, creating a "safe environment." When asked what made the unit feel like a success, Sandy shared, "bringing the idea of hacking that they saw as a bad thing, and, and teaching them how to talk about it and learn about it in a safe way, I think was a success overall." Getting past students' hesitancy to participate was an important outcome for Sandy. Her story started by noticing students' peripheral translanguaging practices in her classroom as students called her out for hacking them. This noticing led her to leverage syncretic literacies in her class by bringing students' home hacking practices into conversation with computer scientists' hacking practices. Thus, in response to her students *calling her out* for hacking them, she decided to *call them in* to share what they knew. As the unit progressed, she shifted the spotlight from her students' hacking experiences to developing (previously taken-for-granted) trust with her students.

Conclusion & Discussion

How these Vignettes help Build Stories with Theory

We share these vignettes because we are curious to know what we can learn about equity-oriented pedagogy from our focal teachers. By identifying how theoretical histories of syncretism and translanguaging were reflected in how these teachers talked about their pedagogical designs and classroom implementations we saw 1) teachers disrupt barriers between language practices inside and outside of school; and 2) tensions arise that teachers had to negotiate when students were given new opportunities to openly translanguage while developing computational literacies.

In both cases, while teachers' syncretic moves afforded pedagogical opportunities, they also presented pedagogical tensions. Both teachers' stories emphasize a goal of lessening barriers between learners' lived experiences inside and outside of schools (everyday and academic). Calli's data literacy design positioned student experience as an important source of data alongside normative constructions of what constitutes data. It brought together scientific practices (survey design, CODAP analysis, statistical rendering) with the everyday (family talk, candy, culture). Rather than engaging in data literacy as limited to pre-determined datasets shared by the teacher, students were invited to leverage their own cultural experiences, communities of participation, and voice to practice statistical analysis. Course activities and ideas were organized around student interests and experiences, which led to students incorporating their values and language practices as part of their analytic process. Sandy, on the other hand, engaged student language and home practices as a way to expand learning about computational literacies. Rather than limiting what might be seen as disruptive behavior for students, Sandy engaged their talk about "hacking" to lead to enriched learning experiences that engaged new relevant disciplinary content.

Both teachers' stories also highlighted tensions that emerge when boundaries between academic and everyday knowledge and literacies were disrupted. In Calli's case, a tension arose as students' sensemaking with data

did not appear to align with canonical forms of reasoning in the leading discipline (statistics). For example, disciplinary ways of understanding might encourage a "majority rules" approach to determining the "best" candy to advertise for, yet students' sensemaking drew upon other resources that might not have been captured in the data, namely their own experiences. They repositioned data beyond what existed in the dataset they generated, instead using it as a tool for imagining what could be (i.e., their original candies and successful advertisements for an audience). As Calli made sense of what seemed to be a disconnect between students' CER paragraphs and their candy ads, she validated students' moves as productive expressions of student skills, knowledge, and values, and not "incorrect" data reasoning.

Sandy faced an unexpected tension as she invited her students' language practices and interests into the lesson. When the topic of hacking was brought from the margins to the center, students hesitated to respond to this reorganization drawing from their understanding of boundaries between what was "okay" and "not okay." The term and concept of hacking was not something that had been sanctioned as discussable in school previously, and students did not immediately welcome or trust breaking that boundary. Sandy approached this tension improvisationally, shifting from asking students to share about their own experiences with hacking to what they thought about others' hacking practices. What emerged was the creation of a new syncretic artifact–a Hacker's code of ethics–that focused on ethical considerations for students' future–not past–actions. We learned from these cases that designing and implementing equity-oriented pedagogy that disrupts disciplinary, academic, and linguistic boundaries can generate new tensions when teachers work to unmark certain ways of knowing and speaking. These tensions can generate opportunities to expand what and how we reason about disciplinary concepts. In the context of computational literacies, these stories present compelling examples of how to broaden what we mean by computational literacies (e.g., hacking) and towards what ends we use them (e.g., imagining new possibilities).

How these Vignettes Help Build Stories of Theory

Inasmuch as these vignettes represent how we build stories *with* theory, they have also been insightful in constructing stories *of* theories of syncretism and translanguaging. These two lineages, each with their own history, are rooted in descriptions of fluid ways of being, knowing, and drawing on repertoires of language central to sensemaking. Yet humans' semiotic resources are also marked by social structures that may impede their full exercise. In classrooms, including monolingual ones, students' ability to foreground a full range of communicative practices is governed by unique boundaries of power and appropriateness. Similarly, while students draw on wide knowledge and experience to make sense of content and information in classrooms, certain forms of knowledge are routinely more welcome than others. Teachers leverage power to invite or reject students' cultural repertoires as aligned with their conceptions of the boundaries of relevant knowledge. The vignettes presented in this paper offer insight into teachers' syncretic pedagogical moves as related to translanguaging–a practice that is always happening but not always marked, sometimes more hidden, sometimes more visible.

Resonant with the lineages of this work, we also position teachers as theorists of their own practice, and reflect on how their stories add to the stories of translanguaging and syncretism. Both Gutiérrez (2008) and García (2002) worked closely with teachers as they began to theorize about syncretism and translanguaging respectively, collaborating with teachers as co-theorists to better understand and reframe bi/multilingual learners language practices as a generative asset for learning and not a deficit. Gutiérrez (2008) demonstrated how teachers brought students' language into a pedagogical *third space*, where the official classroom discourse and unofficial discourses in the classroom met. Further, García and colleagues' (2002) descriptive inquiry enabled teachers to see possibilities for engaging students' use of unofficial discourses, which would create what we see as pedagogical third spaces. These theoretical beginnings situated both teachers and students as initiating moves to create third spaces in classrooms where multiple ways of knowing, being, and (trans)languaging could intersect.

The two vignettes shared in this paper show that there are different ways of leveraging teacher power to co-create a syncretic third space (Gutiérrez, 2008) through practices of re-listening. Classrooms represent spaces where sanctioned language and knowledge are implicitly unmarked as norms. However, as illustrated by our two focal teachers, syncretic pedagogical moves can help unmark unsanctioned ways of knowing and doing. Both stories demonstrate that unmarking language and knowledge practices can be an iterative process that is negotiated with students as they accept or resist these invitations and involve teachers' re-listening as an important response. For example, Calli's candy ad unit design emphasized the importance of students drawing on their experiences and relationships in the construction of a data set for analysis. This design reflected a conjecture that opening up sensemaking resources in the construction of a data set would support students in leveraging traditional methods of data analysis. However, Calli noted that some of her students' conclusions countered traditional forms of CER because they drew on their lives and values as data outside of the dataset they had constructed. Not all students decided "what the data says is the most popular I'm going to go with that [in my ad]." In this case, unmarking the ways students might construct data resulted in a push for Calli to unmark their data analysis practices as well. Students extended

Calli's pedagogical offering, widening the third space she invited them into in her classroom, and in validating their analysis she in turn re-listened to what students had to say about valid data-analysis practices. In contrast, Sandy's invitation to bring in students discourses around hacking, to unmark their language practices about a topic of interest they shared, was not initially reciprocated by her students. Sandy's story demonstrates how theories of syncretic pedagogy involve more than just invitations, but also require re-listening as a humanizing effort to reframe students' computational literacy practices. Re-listening involves identifying topical connections within students' discourse, and also recognizing ideological implications of language and concepts and how those might intersect with student engagement. In inviting hacking as a valid topic, Sandy attempted to unmark what could be talked about, but students' initial responses revealed that unmarking knowledge and practices is a process to negotiate *with* students. The act of naming alone does not mean students will publicly engage. Instead, relational trust needs to be built between students and teachers because language and concepts are powered and politicized.

Ultimately, the analysis presented across our two empirical vignettes forefronts how opportunities to support syncretism and translanguaging in classrooms can be taken up as humanizing pedagogies. This occurred in moments when teachers unmarked previously irrelevant or unwanted language and knowledge practices and attended to how students responded to these invitations by-relistening to student contributions. Bringing these stories and theories together help us understand how teachers' work to disrupt language and cultural boundaries in service of expansive student sensemaking can create new forms of disciplinary practices, in this case computational literacy practices, when negotiated with students' acceptance and resistance to such invitations.

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