Using Concept-Based Instruction in the Chinese as an L2 Classroom: “jiu” and “cai”

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Abstract

In traditional language instruction, learners are often expected to deduce grammatical concepts from examples given during instruction. While learners may be able to deduce a very superficial understanding of the grammatical point, they usually are unable to develop a complete understanding of the grammatical concept. Their deductions lead to overgeneralizations and misuse of grammatical forms in terms of their semantic functions. The adverbs *jiu* and *cai* present a unique challenge to L2 learners of Chinese because there is no English translation for these words. In this paper, I will provide a brief overview of sociocultural theory and then I will show how content-based instruction can be applied to the Chinese classroom to teach the concepts *jiu* and *cai*.

 *Keywords:* Chinese, concept-based instruction, second language acquisition

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**Introduction**

 The adverbs 就 (*jiu*) and 才(*cai*) generally pose great difficulty for Chinese learners of all levels. *Jiu* and *cai*, like much of the Chinese language, are abstract concepts with no direct English translation. Many textbooks have tried translating these words as one or all of the following English words: *just, only, already, as early as, as much as,* etc. While these translations are by no means an exhaustive list, even a complete list would fail to capture the true essence of *jiu* and *cai*. This is because concepts, such as *jiu* and *cai,* are appropriated from the culture and thus can only be understood by using tools and signs from the target culture (Wells, 1994). This is to say that one must learn to think through these cultural concepts, rather than simply translate them. Since there is no proper way to translate these words, both teachers and students struggle when the curriculum dictates that *jiu* and *cai* need to be taught. It is also important to note that in traditional teaching methods, such as the communicative approach, grammar is usually taught to serve the function of a communicative goal, and only the grammar that is *essential* to the goal is taught (Ballman, Liskin-Gasparro, & Mandell, 2001). However, many grammatical concepts, such as *jiu* and *cai,* do not serve one specific communicative goal, and they are not *essential* for any communicative goal, and thus they tend to be taught as a side note with a set of *rule of thumbs*. When grammar points are taught in this manner, students tend to overgeneralize their function in discourse. This is because *rule of thumbs* usually only focus on the grammar use in particular contexts (simple future is used to talk about the weather in English), rather than grammar as a tool for expression (Karpov & Bransford, 1995; Prieto, 2010). This paper will explore an alternative method to teaching *jiu* and *cai*, using Vygotsky’s (1986) construct of concept-based instruction (CBI) as a theoretical framework.

**Concept-based instruction (CBI)**

*Overview of sociocultural theory (SCT)*

 According to Vygotsky, all human activity is mediated by tools (Vygotsky, 1978). These tools can either be physical or psychological in nature. For example, a shovel is a physical tool, and it mediates the activity of digging a hole, whereas a set of blueprints is a psychological tool and it mediates the construction of a building by helping man mediate his thinking. Here mediation is defined as “the creation and use of artificial auxiliary means of acting – physically, socially, and mentally” (Lantolf, 2011, p.25). Using a tool to mediate activity is especially important to SCT, because it is the mediation (use of a tool or sign) that will be internalized by the subject. This is to say that by using a set of blueprints as a psychological tool, the contractor will internalize the concepts in the blueprints. By engaging in activity with a tool or a sign, man internalizes the mediation and it is the internalization of the mediation that leads to cognitive development. This development, as Vygotsky would argue, is the goal of instruction. For Vygotsky, one of the most important forms of mediation is concepts.

*Spontaneous concepts and scientific concepts*

 Concepts can be broadly defined as “the meanings that cultures construct to make sense of the world” (Lantolf, 2011, p. 32). As I mentioned in the previous section, it is the internalization of concepts that leads to development, however, it is important to note that it is not the internalization of all concepts that leads to development. Vygotsky (1986) makes a distinction between spontaneous concepts and scientific concepts. Spontaneous concepts are concepts that are learned in everyday life without instruction. For example, the concept of brother. This is a concept that is not taught in class yet everyone has an understanding of its meaning. Scientific concepts, on the other hand, require formal instruction. For example, the big bang theory is a concept regarding the creation of earth, and it is a concept that can only be learned in formal education, which is to say that one does not “pick-up” the concept of the big bang theory in every day interactions. Vygotsky provides another example of the difference between spontaneous and scientific concepts when he says, “one may call the development of one’s native language a spontaneous process, and the acquisition of the foreign a nonspontaneous process” (p. 159). Again, a native language is typically acquired through every day interactions, however one must deliberately study a second language through some kind of formal instruction. This difference between spontaneous and scientific concepts is important, because it is scientific concepts that leads to development. Also, when teachers ask learners to deduce grammatical concepts, they are asking students to develop a spontaneous concept. This is problematic because “spontaneous and incomplete conceptualizations are not theoretically functional in a developmental sense, because they do not provide the complete basis of understanding, awareness, control, and creativity” (Negueruela, 2008, p. 193). This is to say that these spontaneous concepts cannot be applied to concrete situations, and thus cannot be used to solve problems.

*Language learning and concepts*

 In an article outlining the application of SCT to second language acquisition, Lantolf (2011) points out that “the most pervasive concepts are found in language, including lexical, figurative (as in metaphor, metonymy, and other tropes), and grammatical meanings, such as tense, aspect, mood, voice, and anaphora” (p. 32). This is to say that even though two languages may share similar words, or similar grammar forms, their function within the language (or the concept of the word/grammar form) is often different. One cannot simply translate grammar forms and lexical meanings and hope to fully understand a language, learners must internalize the concepts that are inherent in the language. Negueruela (2008) supports this believe when he argues that L2 development is “semantic rather than formal in nature” (p. 90). This is to say that instead of simply providing the translation of a word or grammatical form (L1 form = L2 form), instruction should focus on the semantic function of these language points. Prieto (2010) points out that in the CLT classroom learners often disregard the functional component of grammar because the CLT classroom is error tolerant, thus promoting a negative view of grammar. Therefore from a SCT perspective it is important to change the view of grammar instruction in the classroom by providing explicit instruction on the semantic function of the grammatical points being taught.

Finally by internalizing concepts of the foreign language one gains control over their actions and thoughts in the target language (van Compernolle, 2011). Speaking a language requires more than just producing correct grammatical forms, it also involves the deliberate choice of specific grammatical concepts to express a specific idea.

*Empirical vs. Theoretical Learning*

 Vygotsky (1986) highlighted two different forms of learning that were associated with the two different forms of concepts: empirical learning and theoretical learning. Karpov and Bransford (1995) defined empirical learning as “comparing a number of different objects, picking out their common observable characteristics, and formulating on this basis a general concept about this class of objects” (p. 62). They go on to explain that spontaneous concepts are developed through empirical learning. Karpov and Bransford then define theoretical learning as “supplying the student with psychological tools general and optimal methods for dealing with certain classes of problems that direct the student toward the essential (not simply the common) characteristics of the problems of each class” (p. 63). This type of learning is suggested for the development of scientific concepts.

 The distinction between these two types of learning styles is important because in traditional teaching methods an empirical learning style is typically used (Karpov & Bransford, 1995). This means that the teacher first provides the students with a set of examples and then ask the students to deduce the abstract concept that is associated with the examples. Karpov and Bransford argue that this is problematic because often time learners will deduce and possibly even internalize the wrong concepts. Then they use the incorrect concepts to mediate the acquisition of other scientific concepts. Thus, creating a snowball effect. This is why Karpov and Bransford state that “scientific concepts should be given to students ready made in the form of precise verbal definitions” (p. 62). Also, according to Vygotsky (1986), the development of scientific concepts should move from abstract to concrete. Suggesting that students should first be given holistic abstract definitions of concepts and then develop their understanding of the concept as they move toward concrete examples of the abstract definition. In fact, Vygotsky argues that learning the name of a concept is just the start for concept development, the learner must understand the underlying processes that make up the concept. To do this the concept must be used by the subject in concrete experiences. (Karpov and Bransford).

*Concept-based instruction and Systemic Theoretical Instruction*

According to Williams, Abraham, and Negueruela (2013) “promoting conscious conceptual mediation is the central tenant of CBI” (p. 364). This is typically done by both verbalizing and materializing the concept being taught via well organized activities. To apply the theories outlined in the previous section, I plan to adapt the systemic theoretical instruction (STI) model proposed by Gal’perin (1992). In this model the teacher begins by providing a verbal explanation of the concept in the L1 and then a comparison of the concept to the L1 is made, if possible. By first presenting the abstract definition of the concept the mistakes and generalizations that generally occur from student deduction can be avoided (Karpov and Bransford, 1995). In the next step, the teacher attempts to materialize the concept. There have been many studies that have shown the benefits of materialization, via illustrations, germ cells, and clay models, for the development of L2 concepts (Ferreira & Lantolf, 2008; Lapkin, Swain & Knouzi, 2008; Serrano-Lopez & Poehner, 2008). Following materialization, students are asked to produce the concepts in a communicative activity. This places the student in a situation where there is a need for a conceptual understanding to complete the task, which is another key component to concept development (Ferreira & Lantolf, 2008; Vygotsky, 1986). Finally, the last stage is verbalization, which means the students will verbalize their understanding of the concepts. Gánem-Gutiérrez and Harun (2011) used verbalization to teach the concepts of the present perfect, simple past, and past continuous, and they found that after instruction their students were able to verbalize key elements of concepts that they were unaware of before instruction. They also state that verbalization provides a window into the learners thinking process, which then allows for the teacher to provide useful feedback. Finally, in another study involving verbalization, the researchers found that when students verbalize their understanding of a concept they are able to see the gaps and inconsistencies in their understanding (Brooks, Swain, Lapkin & Knouzi, 2010; van Compernolle, 2011). By noticing gaps and inconsistencies the learners are able to make adjustments to their understanding of the concept.

**The concept of “jiu” and “cai”**

 Before I provide a model for teaching the concepts of *jiu* and *cai,* I will first provide an abstract definition for the concepts. Lai (1999) conducted an analysis of *jiu* and *cai*, he found that there are four general uses: temporal, restrictive, conditional, and emphatic. These four uses will eventually be used when the students concretize the abstract definition of *jiu* and *cai*.

According to Lai, the temporal use *jiu* is used to express an event that occurs earlier than previously thought, whereas *cai* is used to express an event that occurs later than previously thought. Also, it is important to note that when the speakeruses *cai*, it is usually accompanied with a tone of disappointment, whereas *jiu* has either a neutral tone or pleased tone. For example:

1. 他八点就来了 – *ta ba dian jiu lai le* – He eight o’clock *jiu* come *le*.
	1. He came at eight. (the speaker is surprised by this because it is early)
2. 他八点才来 – *ta ba dian cai lai* – He eight o’clock *cai* come.
	1. He came at eight. (the speaker is surprised by this because it is late)
	2. He will come at eight. (the speaker is upset because he will be late)

The second function of *jiu* and *cai* is a restrictive function. In this function *jiu* indicates that the said amount is less than expected, whereas *cai* suggests that actual amount is more than expected (Lai, 1999). For example:

1. 他吃了两个披萨才抱--*Ta chi le liang ge pi sa cai bao* – He eat *le* two pizza *cai* full
	1. He ate two pizzas and was finally full. (surprised that he needed to pizzas to be full)
2. 他吃了两个披萨就饱了–*ta chi le liang ge pi sa jiu bao le* – He eat *le* two pizza *jiu* full *le*
	1. He only ate two pizzas and was full. (surprised that only two pizzas was needed)

The third function of *jiu* and *cai* is the conditional use. In this function *jiu* is associated with providing conditions that are *sufficient* to satisfy the consequence of the conditional clause, whereas *cai* provides conditions that are *necessary* to satisfy the consequences of the conditional clause. For example:

1. 我一生气才喝酒 – *wo yi sheng qi cai he jiu* – I once angry *cai* drink alcohol.
	1. I only drink alcohol when I get angry.
2. 我一生气就喝酒 – *wo yi sheng qi jiu he jiu* – I once angry *jiu* drink alcohol.
	1. When I get angry, I drink alcohol.

The last function of both *jiu* and *cai* is that of emphasis. Here both *jiu* and *cai* share common ground in their semantic function, which is the rejection of what is expected. For example:

1. 这个汉堡才好吃 – *zhe ge han bao cai hao chi* – This hamburger *cai* tasty.
	1. THIS hamburger is good. (Speaker emphasizes that the burger is really good and thinks the hamburger is better than previously thought)
2. 我就要这个汉堡 – *wo jiu yao zhe ge han bao* – I *jiu* want this hamburger.
	1. I just want this hamburger. (Speaker emphasizes that he only wants this hamburger.)

Lai concludes the article by providing an abstract concept that applies to all of the functions of *jiu* and *cai*. He says, “*cai*, expresses that the asserted value is located farther up on the scale than the expected values” and “*jiu* expresses that the asserted value is located father down on the scale than the expected values.” I will use this abstract concept of the semantic functions of *jiu* and *cai* to design a CBI lesson plan.

**Practical Application: “jiu” and “cai”**

 In this section, I will use the steps suggested by Gal’Perin’s STI model to illustrate an alternative method to introducing *jiu* and *cai* in the Chinese classroom. I will use the model as a starting point and then add some of my own ideas into the model.

*Stage 1: Verbal Explanation*

 In this first stage, I will begin by writing the statements below on the whiteboard and then I will read each of them aloud. All of the statements contain vocabulary that the students have already learned, only the words *jiu* and *cai* are new to the students.

1. Bill 八点来了 – *Bill ba dian lai le* – Bill eight o’clock came *le.*
	1. Bill came at eight o’clock. (no emphasis).
2. Bill 八点就来了— *Bill ba dian jiu lai le* – Bill eight o’clock *jiu* come *le*
	1. Bill came eight o’clock (speaker is surprised that he is early).
3. Bill 八点才来 – *Bill ba dian cai lai* – Bill eight o’clock *cai* come
	1. Bill came at eight o’clock. (speaker is upset that Bill is late)

When saying each of the statements, I will use gestures and manipulate the tone of my voice to reflect the feelings implied by each statement. After, I finish the statements I will ask the students to explain the differences between the three statements and to note any grammatical or form related differences. Then I will provide the students with the definition of the abstract concepts of *jiu* and *cai* (see Figure 1). I provide the abstract concept early on so that my students do not overgeneralize and internalize the incorrect concept.

Figure 1: Definition of Abstract Concepts of *jiu* and *cai*

*Jiu* is used to express that a value or amount is less than expected

*Cai* is used to express that a value or amount is more than or greater than expected.

*Stage 2: Materialization of the Concept*

 In stage two, I will tell the students that I am going to give them 20 sample sentences that use both *jiu* and *cai* (See Appendix A). For each sentence, they will need to draw a cartoon representation that illustrates the implied meanings of *jiu* and *cai*. During the materialization process I will ask my students to use stick-figure people and to make use of conversation bubbles to make the activity more time efficient.

*Stage 3: Verbalization*

 In stage three, the learners will work in pairs to compare their drawings of each of the statements. While comparing their drawings the students will be asked verbalize what their drawings represent and why they chose to draw what they drew. Also, students will be encouraged to make changes to their drawings if they feel another illustration better represents the implications of each statement. Finally, after students have compared their illustrations, I will present my own illustrations (see Appendix B) for each statement and lead a class discussion on how my illustrations compare to their illustrations. Adjustments will also be encouraged at this point.

*Stage 4: Communicative Activity*

 Vygotsky (1986) stated that “the greatest difficulty of all is the application of a concept, finally grasped and formulated on the abstract level, to new concrete situations that must be viewed in these abstract terms” (p. 142). Since the application is the most difficult, it is important to give the learners an opportunity to use the newly learned concepts in a conversation. In this section, I will first introduce the following scenarios:

1. Your classmate arrives late.
2. Your classmate does a lot of homework.
3. Your classmate rarely studies.
4. You really enjoyed a movie you saw the other day.

Students will work in pairs making conversations, using the above scenario prompts. The students will be asked to record their conversations via smartphone or recorder. Then upon completion of each conversation they will be asked to listen to their conversation again pausing each time they use *jiu* or *cai*, so that they can explain why they chose to use the word in each situation. In this activity, the students will be encouraged to refer back to their cartoons to explain why they chose *jiu* or *cai*.

*Stage 5: Verbalization*

In the final stage, the students will be asked to verbalize their understanding of the concepts of *jiu* and *cai.*  In their verbalization of these concepts, the students will also be asked to give examples of when and how they could use both *jiu* and *cai* in future situations*.* Finally, at the end of the lesson I will present concrete examples of both *jiu* and *cai* (temporal, restrictive, conditional, and emphatic).

**Conclusion**

 In the last five years there has been an increase of research surrounding CBI, and its effectiveness on second language learning. Research has focused on the effects of materializing and verbalizing concepts for the second language learners. While the results have been positive, there has been a few concerns regarding CBI. One of the difficulties for language instructors is developing abstract definitions for the many concepts that exist in a language. Indeed language concepts are not simply limited to grammatical points, but also include cultural points. Lapkin, Swain, and Knouzi (2008) echo the concerns that many educators have regarding CBI when they say that “the development of our explanation of the grammatical concept of voice in French was a lengthy, iterative process” (p. 247). In this article, I used a linguistic analysis of the grammar point of which I intended to teach, to serve as my abstract definition. Without this analysis, I undoubtedly would have spent a significant amount of time developing the abstract concept of *jiu* and *cai*. This suggests that for future development of CBI use in the classroom, we must first see an increase in linguistic analysis of these language features.

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**Appendix A**

1. 他十一点才睡觉
2. 他吃了五个汉堡才饱。
3. 我的妈妈五点就下班。
4. 我星期一才跑步
5. 我的朋友就有两个车
6. 我生气的时候就喝酒
7. 小张两点才回家。
8. 小明觉得篮球才好玩儿
9. 她就会说三种语言。
10. 我的爸爸才睡了三个小时。

**Appendix B**

他就会说三种语言。

