Introducing Prime Reduction as a Method for Writing Cultural Scripts and Defining Abstract Concepts

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Abstract

This article proposes a method for writing cultural scripts and defining abstract concepts I call 'prime reduction'. I am using Cliff Goddard and Anna Wierzbicka's Natural Semantic Metalanguage Theory (NSM) as a starting point. I first sketch out the theory, along with the key notions of 'semantic primes' and 'cultural scripts'. I also provide a list of semantic primes that uses their English and Chinese exponents. Several examples are then used to illustrate NSM. With the examples in place, I introduce the method of 'prime reduction' and apply it to several abstract concepts and cultural values. My claim is that prime reduction helps not only with the task of writing cultural scripts, but can also be used to define abstract concepts in the broader contexts of EFL learning.

Keywords: Semantic primes; cultural scripts; prime reduction; Goddard; Wierzbicka.

1. Introduction

The expression 'semantic primes' refers to a number of *basic concepts* found at the core of each and every language in the world. The basic idea of a core vocabulary—which semantic primes are—is that it is always possible to express complex meanings by using *easy, simple words*. The research program that led to the current list of semantic primes is known as the NSM theory—the natural semantic metalanguage theory. NSM is associated with Cliff Goddard and Anna Wierzbicka, two linguists who work in the field of cross-cultural pragmatics. For the past 30 years, they have sought "to identify an ultimate core vocabulary using the criterion of reductive paraphrase." (Goddard and Wierzbicka, 2007). Their research has produced a list of *64 universal semantic primes* (see Table 1 below for a list of the primes that uses their English and Chinese exponents). Semantic primes are believed to have linguistic exponents in all languages. This essentially means that the primes can be used *natively* (that is, in the L1 lexicon) in *all* languages. Some of their grammatical properties are also believed to be universal, which brings hope among NSM researchers that semantic primes will indeed be easily translatable in any language.

2. Semantic Primes

In the context of intercultural communication, semantic primes turn out to be of utmost importance because of their three basic properties. Semantic primes are (i) universal; (ii) culturally neutral; and (iii) can be translated directly into any language. The property of universality has been mentioned earlier. Primes are common to *all* languages. They can thus be directly understood by anyone's L1 mental lexicon. This leads to their cultural neutrality. Culture-specific values can be expressed in semantic primes, and thus understood in any *other* culture because of their universality. And again, being universal and culturally neutral implies their translatability into any language. Hence, from the perspective of intercultural communication, semantic primes can serve to communicate *across* cultures without fear of terminological ethnocentrism. This last point is crucial, as we will see below. For indeed, many concepts and values used in the context of intercultural studies and intercultural communication are very highly language- and culture-specific. The use of semantic primes thus brings to the understanding of such concepts and values the neutrality and universality necessary to meet non-ethnocentric demands. This is precisely where the concept of *cultural scripts* comes in. Let's look at scripts more closely.

3. Cultural Scripts

A cultural script works as an application, as an exemplification, or indeed a *mise en scène* of a given cultural *value* as understood by the members of the culture in which the value has relevance. The concept or value, as I mentioned earlier, are culture-specific. This last clause is crucial: the cultural script stands as a representation of *what it's like* to be in that culture. It is therefore essential that the script be written *from the inside*, as it were, while at the same time being unequivocally *translatable* into any other culture and language *without* bias or distortion—or indeed any form of terminological ethnocentrism or *othering*. This is where cultural scripts become indispensable for the field of intercultural communication. And it is also precisely where the constraint of using semantic primes comes in: all scripts *must* be written in primes, and primes *only*. It is now easy to see why as well. But the question that quickly surfaces is of finding out *how* to write entire scripts using primes only. In the following sections of the paper I will introduce a method for doing so, a simple method I call prime reduction. I will also show that the same method can be applied in more general contexts. Let's begin by looking at two examples of cultural scripts.

4. A Cultural Script for the Concept of Individualism

Let's look first at the culture-specific value of 'individualism'. To do this, we can work with Gary Althen's definition of 'individualism'. He defines it as follows: "…separate individuals who are responsible for their own situations in life and their own destinies." (Althen, 2003). This definition is perfectly understandable for anyone fluent in English *and* familiar with life, say, in North-America (Canada and/or the US). But for non-English speakers who have little or no familiarity with the North-American lifestyle, it may not be readily understandable. We need a cultural script. Here is a possible cultural script for Althen's concept of individualism:

[SCRIPT:][1]

[Americans, according to Althen's essay,] think like this:

When a person wants to do something, it is good if this person can think like this: "I think like this because I want to think like this, not because other people say I have to think like this."

[In America, according to Althen's essay,] it is good if a person can think like this: "I live like this because I want to live like this, not because other people say/think I have to live like this. If I cannot live like this because other people say/think I cannot, it is not good."

[END OF SCRIPT]

This simple example of a cultural script at once shows the constraint placed on the sole use of primes, as well as its *mise en scène* nature. Its use of the first person enables the reader to enact, as it were, what it means to be an individualist with regards to how one lives one's life ("like this" being cashed in as, roughly, "the way I live my life" or "my own personal choice of lifestyle"). Let's now turn to a somewhat more complex example.

5. A Cultural Script for the Notion of 'Person'

In his essay titled "The Arab World," Edward Hall writes that the Arab "must not have any concept of a private zone outside the body." He <u>contrasts</u> this with the claim that "In the Western world, the person is synonymous with an individual inside a skin," and goes on to say that the skin itself, along with the clothes, are "inviolate." (Hall, 1990). For the Arab, he claims, the "person" is "inside the body." This is an important difference between the Arab and the Western worlds. Hall also refers to this as "the placement of the ego." The words 'person', 'all', 'inside', and 'body' are semantic primes, so it is easy to understand.

[SCRIPT:]

[The Arab, according to Edward Hall's essay,] think like this:

"A person is <u>all inside</u> a body. A person is <u>not the same</u> as a body. Because of this, it is <u>not bad</u> if people are <u>very near</u> other people's body. It is <u>not bad</u> if people <u>touch</u> other people's body."

[Westerners, according to Edward Hall's essay,] think like this:

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[1] All terms placed in [brackets] are non-semantic primes. In this example, the term 'script' itself is not a prime, and is thus bracketed. I will follow the same usage throughout the paper.

"A person is <u>very much the same</u> as the person's body. Because of this, people <u>cannot touch</u> other people's body. Some people do not want other people to be <u>very near</u> the body."

[END OF SCRIPT]

Hence, we can see how a cultural notion such as 'privacy' can take on very different meanings, based on the understanding of the notion of 'person'. Hall indeed moves on to claim that "Arabs *do not like to be alone*. […] Since there is no physical privacy as we know it in the Arab family, not even a word for privacy, one could expect that the Arabs might use some other means to be alone. Their way to be alone is to stop talking." (Hall, 1990). To make sense of this, we can hint at the method of prime reduction by looking at the concept of 'privacy'. I return to the method of prime reduction in the next section. For now, consider the following:

The *OED* defines the word 'privacy' as follows:

• <u>Privacy</u> = state or condition of being withdrawn from the society of others or from public attention.

<u>Level 1</u>

• <u>Withdrawn</u> = secluded.

<u>Level 2</u>

• <u>Secluded</u> = left alone.

<u>Level 3</u>

• <u>Alone</u> = with no others.

<u>Level 4</u>

At this point, the concept of 'privacy' boils down to the primes '<u>no other people</u>' or '<u>no other person</u>'. Coupled with the previous understanding of the cultural concept of 'person', we can infer the following:

If person = body, then <u>no other people</u> means no other <u>bodies</u>.
If person ≠ body, then <u>no other people</u> means no other <u>persons</u>.

From this and the cultural script of 'person', it would follow that, for Westerners (i.e. 'person = body'), 'privacy' means having no other bodies around one (what Hall refers to as "physical privacy"); whereas for the Arab (i.e. 'person ≠ body'), 'privacy' means something different—perhaps, as Hall suggests (Hall, 1990), 'privacy' can be gained by simply being silent in a room otherwise full of people.

6. Prime Reduction

What I call 'prime reduction' is a simple method for moving from higher-level, richer vocabulary items used for expressing cultural values and abstract concepts to simpler, more basic terms, until the bedrock of primes is reached. As shown above in the 'privacy' example, I simply move between 'levels' of definitions until semantic primes are reached. Usually, this can be done in four or five steps—level 0 being the starting point, indeed the point at which the value or concept is given its official definition (I typically use the *OED*, but any other dictionary would work just as fine). Then the process is straightforward and recurrent: each key term in level 0 is itself defined at level 1; level 1 key terms are defined to make up level 2; and so on until primes are reached. It is in this sense, then, that a cultural script can be understood as a *paraphrase* written in primes. Once primes are in place, direct translation into other languages can be arrived at effortlessly.

As a method, prime reduction can obviously be of help in the context of intercultural communication when learners wish to understand language-specific terms of cultural values ('individualism', 'person', 'privacy') alongside cultural scripts. The method can also help foreign/second language learners overcome vocabulary shortage issues when, for example, they are asked to take 'content' courses in L2. In the following sections, I will offer examples of how the method works for the concepts of 'stereotype' and 'serving others'. The simplicity of the method should not lead anyone to overlook or underestimate its intrinsic value as a language learning instrument. Once all the levels of definitions are in place, what the learner is faced with is a tree figure showing the connections between all the terms displayed by levels. Can prime reduction preserve all the nuances of meanings expressed at higher levels of vocabulary? One can perhaps use the example of the several shades of blue that would, after reduction, turn into a generic, single version called 'blue'.

There is most definitely a loss of nuances, of fine distinctions, of subtle differences as one move further and further down toward the bedrock of semantic primes. Yet, I would point out that the exercise itself may well work to bring out all those subtle differences into sharper perspective, or contrast, as the learner glances up and down the tree figure at all the relevant connections between the terms found there. We could glance for example at the connections between the terms 'privacy', 'withdrawn', 'secluded', 'alone', and 'with no others', and with this 'prime grounding', as it were, introduce finer distinctions in, for example, the idea of a 'withdrawn' person. Loss of nuance at the roots of the tree balanced with rich foliage when one looks toward the top—potentially reaching to the fruit. Let us look at two more examples of prime reduction.

7. Prime reduction at Work: the Concept of Stereotype

LaRay Barna defines stereotypes as "overgeneralized beliefs that provide conceptual bases from which to 'make sense' out of what goes on around us. In a <u>foreign</u> land they increase our <u>feeling of security</u> and are <u>psychologically necessary</u> to the degree that we <u>cannot tolerate ambiguity</u> or the sense of <u>helplessness</u> resulting from <u>inability to understand</u> and deal with people and situations beyond our comprehension." (Barna, 1994; my emphases). In the following paragraph, Barna claims that stereotypes are a <u>cause of miscommunication</u> because they prevent us from perceiving the world objectively. As Becker says, stereotypes help "reduce the threat of the unknown by making the world predictable." (Becker, 1962, cited by Barna). But that predictability comes at a price. Let's try to write a cultural script to define the concept of 'stereotype'.

The *OED* defines the word 'stereotype' as follows:

"A preconceived, standardized, and oversimplified impression of the characteristics which typify a person, situation, etc., often shared by all members of a society or certain social groups."

Level 1

• <u>preconceive</u>: form an idea about something in anticipation of one's actual knowledge or experience.
• <u>standardize</u>: conform to a standard.
• <u>oversimplify</u>: treat in an unduly simple way.
• <u>impression</u>: a vague or mistaken notion or belief impressed on the mind.
• <u>characteristic</u>: a distinctive mark or trait.
• <u>typify</u>: be a representative example of something.
• <u>share</u>: possess or use jointly with others.

Level 2

• <u>anticipation</u>: beforehand; in advance.
• <u>knowledge</u>: the fact of knowing a thing; intellectual perception of fact or truth.
• <u>conform</u>: make like.
• <u>standard</u>: a thing serving as an example.
• <u>treat</u>: deal with something in a specified way.
• <u>unduly</u>: without due cause.
• <u>simple</u>: not complicated or elaborate.
• <u>vague</u>: unclear; indistinct.
• <u>notion</u>: an idea.
• <u>impressed</u>: produce a lasting influence on the mind.
• <u>distinctive</u>: serving to differentiate from others.
• <u>trait</u>: a distinguishing quality.
• <u>representative</u>: standing for or in place of others.
• <u>example</u>: a specimen; a copy of something.

Level 3

• <u>intellectual</u>: of the mind.
• <u>perception</u>: action of the mind.
• <u>fact</u>: truth; reality.
• <u>mind</u>: the action of thinking; the thought of something.

Level 4

At this level, we have gathered enough primes to work out a prime-based re-definition of the concept of 'stereotype'. Several variations on possible prime re-definitions could use one of the following patterns:

['Stereotype'] = something I do when I think/say something is true/not true of someone else/other people <u>before</u> I know if it <u>is</u> true/not true.

['Stereotype'] = something people do when people think/say something is true/not true of someone else/other people <u>before</u> people know if it <u>is</u> true/not true.

8. Prime Reduction at Work: the Cultural Value of 'Serving Others'

I now turn to a second example of prime reduction. This involves Jeanne Wakatsuki's ideas on the Japanese cultural value of 'serving others', as developed in her essay "Living in Two Cultures." (Wakatsuki, 1983). Let's begin with key quotations from Wakatsuki's text:

"I served my brothers and father and did not resent it. I was made to <u>feel</u> not only <u>important</u> for performing duties of my role, but <u>absolutely integral</u> for the functioning of the family."

"In my family, <u>to serve another</u> could be <u>uplifting</u>, a <u>gracious gesture</u> that <u>elevated oneself</u>."

"<u>Serving</u> humanity is the <u>greatest virtue</u>. Giving service of yourself is more worthy than selling the service or goods of another." (Wakatsuki attributes this quote to her father.)

"For many white Americans, it seems that <u>serving another</u> is <u>degrading</u>, an indication of <u>dependency</u> or <u>weakness in character</u>, or a <u>low place</u> in the social ladder."

How do we go about <u>writing a cultural script</u> for the Japanese cultural value of the notion of serving another ? Let's first find definitions for 'serve' and 'service' and then apply the method of prime reduction down further levels until primes are reached.

The *OED* defines the words 'serve' and 'service' as follows:

• to serve: to be <u>useful</u>; to be <u>advantageous</u> to something or someone; to be <u>valid</u>; to hold good.
• service: <u>duty</u>; respect; regard; meet the <u>needs</u>; provide a <u>benefit</u>; help, benefit another.

Level 1

• useful: to produce good results; to do something good.
• duty: what is <u>owed</u>.
• advantage: benefit; increased well-being.
• benefit: a thing well done; a good <u>deed</u>.
• valid: strong; having value.

Level 2

• owed: <u>need</u> to do something for someone.
• need: something that must be done for something or someone.
• deed: a thing to be done; a duty.
• well-being: healthy, prosperous condition; welfare.

Level 3

• important: great significance; great value.
• value: principle or moral standard; something thought to be very very good for all the people living in the same place.
• uplifting: elevate morally; feel good because I do something good for other people.
• virtue: moral excellence; diligence; doing good for human life or conduct.

Level 4

At this point, we have gradually broken down the notions of 'service', 'serving', 'uplifting', and 'important' into several simpler notions, most of which are indeed semantic primes.
What needs to be done now is rather simple: write short sentences expressing the cultural value. To do that, we go back to Wakatsuki's quotations and re-write her key words into primes. Here are possible prime re-definitions:

[serve] = to do-something-good-for-others.

[value] = very very good for all the people.

[uplifting] = I feel good.

[virtue] = to do something good for life.

[weakness in character] = a-small-person.

[low place] = a-small-life.

And here are two possible cultural scripts for the cultural value of 'serving others':

[SCRIPT:]

[According to Wakatsuki, many Japanese] people think like this: "It is very very good for all the people to do-something-good-for-others. If I do-something-good-for-others, people think I am good. If people think I am good, I feel good. If I feel good, I have good life. I have good life because when people do something good for life, it is very good for all. If all people do something good, all people have good life."

[According to Wakatsuki, many white American] people think like this: "If I do-something-good-for-others it is maybe not very good, because people can think I have a-small-life. People think to have a-small-life is not good. If I do something good for others, people can think I am a-small-person. People think to be a-small-person is not good. If people think I am a-small-person, I do not feel good. If people think I have a-small-life, I do not feel good."

[END OF SCRIPT]

9. Conclusion

As I presented it here, prime reduction is thus a fairly simple method, one that should be easy to implement. The key to writing cultural scripts, as well as defining language- and culture-specific concepts and values, rests in the possibility of establishing a connection between primes and *any* other, more complex concepts—including, of course, the most abstract ones. This is an idea that has been at the heart of the search for a "core vocabulary" in the broad area of language learning and language education since the 1930s. The NSM theory, and the semantic primes in particular, have made a central contribution not only to language education, but to the field of intercultural studies as well.

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Table 1: The list of semantic primes

English exponent:	Chinese exponent:	English exponent:	Chinese exponent:
I	我	Move	移動
You	您	Touch	接觸
Be (somewhere)	在某處	Have	有
Be (someone)	是某人	Someone/person	某人/人員
Be (something)	是某事	Something/thing	某事/事情
There is/exist	那裡存在	People	人們
Live	活	Body	機體
Die	中斷	Kind	親切
Part	部分	When	當
This	這	Now	現在
The same	同樣	Before	以前
Other/else	其他	After	以後
One	一	A long time	很長時間
Two	二	A short time	短的時間
Much/many	許多	For some time	有一段時間了
Some	一些	Moment	時候
All	所有	Where	那裡
Good	好	Here	這裡
Bad	壞	Above	上述
Big	大	Below	下面
Small	小	Far	很遠
Think	認為	Near	在附近
Know	知道	Side	端
Want	希望	Inside	裡面
Feel	感受	Not	沒有
See	參見	Maybe	可能
Hear	聽到	Can	能
Say	說	Because	因為
Words	字	If	如果
True	真	Very	非常
Do	執行	More	更多
Happen	發生	Like	類似