Communication is elemental, and yet it is something that seems trivial when one does not think about it. In fact, history is full of many examples of just how crucial language and communication are. One such example is that of the Navajo Code Talkers. The Navajo Code Talkers had a language that the Japanese cryptographers were never able to decipher. In 1943, during the time when the Japanese military was fixed around the Bismarck Archipelago, the Japanese had been decoding the Allied messages, until a secret weapon, eleven Navajo Indians, were brought to help (Baker, 2001, p. 1). Because of the unbreakable Navajo code, the Japanese could no longer prepare for accurate defense against the Allies’ future attacks. From this strategy, there arose a paradox; Navajo had to be both similar enough to English for the codes to be translated accurately, and distinct enough from English for the Japanese to be unable to decipher the messages. In order to resolve this paradox, it is important to look closely at Mark Baker’s (2001) ideas of recipes, samples, and parameters.

According to Baker (2001), language is made up of both recipes and samples. A sample is an example of language, such as a book written in a given language, while a recipe explains how the language works (Baker, 2001, p. 54). For example, a sentence in English is a sample of the English language, but a book written about the grammar of the English language, written in any language, is a recipe for the English language. Similarly, a sentence in Navajo is a sample of the Navajo language, while a book written about the intricacies of the grammar of the Navajo language, written in any language, is a recipe of the Navajo language. To be more specific, samples are considered E-Language, or extensional language, because they are examples of
language that are external. Contrariwise, recipes are considered I-Language because they are intensional, or internal; they are the process the speaker’s mind goes through to create samples (Baker, 2001, p 54). Because of this distinction between recipes and samples one can see that there exists the possibility of languages having similar recipes. Logically following that, there must be languages with similar recipes and similar samples. How, then, does one find languages with similar recipes and different samples?

Baker (2001) explains the role of parameters in this conundrum. Parameters are subtle but definite differences in recipes of languages that allow for different samples of languages (Baker, 2001, p. 55). Because of parameters, languages may have similar recipes, but very different samples. In the instance of the Code Talker paradox, the Japanese were looking for similarities between E-language, the samples, without considering the I-language, or how the speakers form language (Baker, 2001, p. 56). For example, consider WH question formation in Tohono O’odham. A WH-question is a question that starts with a WH-word or phrase. The structures of questions in Tohono O’odham and in English are similar, and one would think their samples would be similar too. However, Tohono O’odham has an imperfective auxiliary verb o, which is attracted to the question particle, causing it to move and attach to the question particle n (Honda and O’Neil, 2008, p. 140). In English the WH-word must always move, however we do not have the verbal {impf} auxiliary o (Honda and O’Neil, 2008, p. 144). The aforementioned shows how languages can have similar structures, but different samples, due to the parameter of attraction, or movement.

Understanding parameters, and the distinction between recipes and samples allows one to resolve the Navajo Code Talker paradox. The distinction between extensional language and intensional language explains that the Japanese were merely comparing the samples, or
extensional language, when in order to crack the code they should have been examining the recipes, or intensional language. Parameters show that there are subtle differences in intensional language that alter extensional language. Thus, the Navajo Code Talkers were able to send precise messages that were both similar enough intrinsically to English (and Japanese) to allow for accurate translations, and different enough extrinsically from English (and Japanese) to prevent the Japanese from deciphering the code. Because of these parameters in language, the recipes were distinct enough to provide samples that greatly helped the Allied side in battle.
References
