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RESEARCH ARTICLE

A methodological proposal for conlang evaluation

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Abstract
Intentional language creation is a mainstay of the modern world, having gained widespread notoriety in popular television shows and films, and even finding a home in academia in the form of undergraduate courses on invented languages. In this paper, we argue that constructed languages deserve more careful consideration than they currently receive either inside or outside academia. We provide guidelines for developing evaluative criteria to be used with constructed languages of various types and ask readers, whether academics or not, to consider the role they play as audience and critics in the unfolding of a new art form: the art of language invention.

Keywords: conlang; language invention; interlinguistics; evaluation

Intentional language creation (now known as conlanging) has been with us since at least the 12th century. Even so, the practice was not taken seriously until the 19th century, with the advent of the international auxiliary language (IAL) (now often shortened to auxlang). An IAL is a conlang whose primary purpose is to serve as a means for international communication. Beginning with Johann Martin Schleyer's Volapük, a number of high-profile IALs were created between 1879 and 1917, all of them vying to be the world's primary auxiliary language. The subfield of linguistics called interlinguistics – or the study of IALs – was born with Volapük, and that has been the primary way linguistics as a field has interfaced with created languages ever since.

Beginning with J. R. R. Tolkien's work in the 20th century, however, the focus of language creation as a field shifted dramatically. While there are both auxiliary language creators and users to this day, since the advent of the internet, the bulk of newly created languages have been for purposes other than international communication – namely entertainment like books, movies, and TV shows. As a consequence of the flood of new conlang work, an important question has arisen: (How) Should conlangs be evaluated? Created languages rarely receive critical academic attention. Those who typically pay the most attention to individual conlangs are fans who are interested in learning a

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given language in order to participate in fan communities (see, for example, meetings of the Klingon Language Institute that gathers fans of the TV and movie series, *Star Trek*). Those who might take an interest in critical evaluation are often unsure how to engage with conlanging as an art form since there are few methodological guidelines for how to do so (though resources on conlang development do exist; e.g., Peterson, 2015; Schreyer, 2023).

This article presents an initial attempt to provide early guidelines for conlang evaluation. Our hope is to create a jumping off point for more critical discussion of language creation within both the linguistics community and the general public.

We propose a starting point for the methodological evaluation of a conlang should be determining the language's intended purpose. Conlangs should be assessed in terms of how well they achieve their intended purpose. Determining the purpose of a conlang is not trivial, and some conlangs may not fit comfortably into a box. However, as far as possible, each conlang should be evaluated on its own merits and not compared to others that were created for different reasons.

While a substantive discussion of the many purpose goals that might be behind conlangs is beyond the scope of the current paper, two stand out. An IAL, as mentioned above, is intended to be used as a means of communication between those who don't share a language (Shenton et al. 1931). Examples of IALs include Esperanto, Volapük, Novial, Ido, Occidental, and Idiom Neutral. IALs are intended to be easy to use, easy to learn, practical, and culturally neutral. While there are often multiple factors behind why many applied linguists do not like to make definitive assertions about one language being easier to learn than another, creators and devotees of IALs have no such qualms. In general, for example, less inflection is assumed to be simpler than more inflection, and regularity is assumed to be simpler than irregularity. While the simplicity of one IAL compared to another is often debated, in general, conlangers (i.e., those who create conlangs) assume that any IAL will be easier to learn and use than any natural language.

While IALs are designed with ease of learning in mind, a naturalistic artistic language (usually referred to as a naturalistic conlang) is one that attempts to appear as realistic as a natural language, complete with the irregularities and oddities of a natural language. Examples of naturalistic conlangs are Dothraki, High Valyrian, Verdurian, Sindarin, and Okuna. Though strategies for developing a naturalistic conlang may differ, the aim is the same: to create a language that lies within the plausible range of typological variation for a natural language. Some of the hallmarks of natural languages that naturalistic conlangs attempt to emulate are principled paradigmatic irregularity, allophony, morphophonological variation, and realistic lexical gaps. A naturalistic conlang will also attempt to emulate the linguistic history of a natural language via the use of regular sound changes and grammaticalization processes.

A key problem in conlang comparison is the comparison of conlangs with radically different goals (e.g., IALs vs. naturalistic conlangs). Often the goals need not be stated, as comparison by a single metric will illustrate key differences in the approach of the creator. By way of example, we offer two well-known created languages: Esperanto, an IAL created in 1887 by L. L. Zamenhof, and Dothraki, a naturalistic conlang created in 2009 by one of the authors of the current piece. For the sake of brevity, we will focus on the formation and uses of the future tense in each language.

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Minimizing forms vs. creating agreements

In Esperanto, all verbs share the same inflections with no exceptions. Looking only at composite forms, the full conjugation of an Esperanto verb may be expressed as follows:

Table 1. Esperanto verb inflections

		Non-finite	
Tense	Finite	Infinitive	Imperative
Present	-as	-i	-u
Past	-is		
Future	-os		
Subjunctive	-us		

Every verb in Esperanto takes these endings and has predictable interpretations based on their intended meanings. The suffixes themselves never vary, regardless of the stem to which they are added. Furthermore, outside of pronouns that end in /i/, any word of Esperanto that ends with one of these suffixes will be nothing other than a verb with that particular form (i.e., there is no possibility of homophony). While this discussion focuses on the function of the future tense, the verb inflection system is constrained enough that it is possible to present the whole system in Table 1.

By contrast, Dothraki verbs are slightly more complicated. Dothraki verbs agree with their nouns in person and number, and conjugate for both tense (present, past, and future) and polarity (positive and negative). The system is such that it's difficult to assign meaning to any discrete element. Here, for example, is a partial paradigm of the verb *dothralat* "to ride" showing the present tense:

Table 2. Dothraki verb *dothralat* ("to ride") in present tense inflections

	Positive		Negative	
Person	Singular	Plural	Singular	Plural
First person	dothrak	dothraki	dothrok	dothroki
Second person	dothrae	dothrae	dothrao	dothrao
Third person	dothrae	dothrae	dothrao	dothrao

The forms in Table 2 demonstrate that /o/ is associated with negativity, /k/ with first person, and /i/ with plural. However, if the stem is /dothra/, it's unclear what, if anything, can be associated with a non-first-person subject. Furthermore, if the /a/ of the stem is replaced with /o/ in the first person negative, the base itself is not always a predictable form.

It's crucial to understand the present tense forms before turning to the future tense forms, as the latter are built off the former. That paradigm is shown in Table 3.

The formation of the future tense here appears simple: An /a/ is prefixed to the present tense positive forms to create the future tense positive, while /o/ is prefixed to those same forms to create the future tense negative. If the system is reduced to that observation, though, it's unclear why the present tense negative forms play no role in

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Table 3. Dothraki verb *dothralat* ("to ride") in future tense inflections

	Positive		Negative	
Person	Singular	Plural	Singular	Plural
First person	adothrak	adothraki	odothrak	odothraki
Second person	adothrae	adothrae	odothrae	odothrae
Third person	adothrae	adothrae	odothrae	odothrae

the formation of the future tense, nor is it ultimately clear what signifies the future tense, aside from a prefix of some kind co-occurring with the present tense positive forms. Adding more data complicates the issue because the forms change depending on whether a verbal root begins or ends with a consonant or vowel. Consider the following forms of verbs inflected for third-person singular subjects and the future tense as shown in Table 4.

Table 4. Dothraki verbs inflected for third-person singular subject and future tense

	C _ V/dothra/ "ride"	C _ C/mad/ "sew"	V _ C/ath/ "be dry"	V _ V/inde/ "drink"
Positive	adothrae	amada	vatha	vindee
Negative	odothrae	omada	vatho	vindeo

The form of the prefix is dependent on the initial sound of the stem. The form of the third-person singular agreement likewise varies depending on the sound that ends the stem, the sound that begins the stem, and whether the verb is positive or negative.

Verb tense: Absolute usage vs. unpredictable functions

In terms of usage, the Esperanto future tense is used whenever the verb in question is finite and situated in the future. In subordination, the use of the future tense is absolute, rather than being relative to the tense of the matrix clause. Thus, whereas one would say "I will give it to you when I see you" in English, where "I see you" uses the present tense to indicate a future time, Esperanto would instead use the future tense because it is finite and situated in the future (i.e., *Mi donos* [=will give] *ĝin al vi kiam mi vidos* [=will see] *vin*.). The future tense is likewise used in a subordinate clause with a matrix present tense verb (e.g., *Mi esperis, ke mi vidos* [=will see] *vin*. "I hoped that I would see you.").

Dothraki likewise uses its future tense for the same basic functions as the future in Esperanto or English (e.g., *Anha atihak* [=will see] *yera*. "I will see you."), but has an unpredictable secondary function. Specifically, the future tense is used to convey a kind of purposive connection between the first and second clauses. This latter clause occurs in the future tense form regardless of the tense of the clause. Three examples are shown below featuring *vezak* "I will find" used to mean "in order to find":

- *Anha dothrak vaesaan vezak mae*. "I am riding to the city to find it."
- *Anha dothra vaesaan vezak mae*. "I rode to the city to find it."
- *Anha adothrak vaesaan vezak mae*. "I will ride to the city to find it."

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The embedded future tense verb can also be conjugated for a different person to express a different subject in the purposive clause:

- *Anha dothra vaesaan veza anna*. "I rode to the city so that he would find me."

Many languages use a construction featuring a non-finite verb to express a purposive construction (cf. English "I talked to him to soothe him") and Esperanto is no different. Esperanto uses the preposition *por* ("for") along with the infinitival form of the verb to express purpose or intention. An example is shown below:

- *Mi iris al la urbo por trovi ĝin*. "I went to the city to find it."

The fact that Dothraki uses a finite verb form for this construction is worthy of examination. If a language created intentionally by one person exhibits a feature not found in natural languages (or, at the very least, not commonly found), a logical question is whether such a feature is at all plausible. Answering a question of plausibility requires examining the process of how the feature was created.

Dothraki was created with a simulated linguistic history. This is a common strategy used in naturalistic language creation and was pioneered by Tolkien. What this means is within Dothraki's created history, an earlier stage of the language existed which differs from the modern stage in theoretically plausible ways with respect to its phonology, grammar, and lexicon. This proto-stage had only two tenses: past and non-past. To form purposive clauses, a prepositional construction similar to Esperanto's was used. The preposition **haw* was used with the non-past form of the verb to express purpose, as shown below in these reconstructed proto-forms. The word order differs slightly, as Dothraki also changed from VSO word order to SVO word order, but otherwise the words presented in these examples are identical to those in the previous equivalent sentences.

- **dołrak anək vaɣesaɣan haw ezak meja*. "I rode to the city to find it."
- **dołrak anək vaɣesaɣan haw eza anka*. "I rode to the city so that he would find me."

According to Dothraki's simulated history, the construction **haw* + finite verb coalesced, resulting in a new verb form used only in embedded constructions. A series of sound changes resulted in the preposition **haw* becoming the prefixes a- in front of a consonant and v- in front of a vowel.

The final step of this element of Dothraki's evolution was the promotion of this novel embedded verb form to a matrix clause. Via analogy, Dothraki speakers reasoned this purposive form, which necessarily refers to an action that follows a previous action, could be used on its own to refer to an action that has not yet occurred. Thus, it was the purposive form that was reanalyzed as a future tense form and not the other way around.

It is vital that the details of these future tense strategies are understood before we can discuss evaluation. As should be evident, the approaches taken to create the tense systems of the Esperanto and Dothraki languages are quite different. As a result,

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attempting to evaluate them both using the same metrics is likely to prove challenging, if not impossible.

Conlang evaluation: The question of purpose

If we were to evaluate these languages solely based on their suitability as an IAL, Esperanto would seem quite suitable, and Dothraki would not. The Esperanto future tense is simply formed, fits in easily with the rest of the inflectional system (which itself is simple), and its uses are either standard or predictable deviations from the standard and are easily learnable. That is, to master the future tense of Esperanto, one has to learn one suffix, and that suffix makes sense when compared to the larger system.

For Dothraki, one has to learn a number of different prefixes that apply differently depending on the shape of the stem to which they're applied and the polarity of the sentence. The prefixes themselves attach to the present tense, so learning the forms of the future tense is not much more difficult than learning the present tense, but as Dothraki features subject–verb agreement, it's more complex than Esperanto, and will likely take longer to master for most learners. Finally, the extra uses of the future tense are unpredictable and, thus, can seem unintuitive. There is a reasoned back story, but this will likely be of little use to most learners. Overall, Dothraki would likely rate poorly as a potential IAL.

If, on the other hand, one were to evaluate both languages as naturalistic languages, Esperanto appears highly artificial. All languages feature regularity in some form, but Esperanto's set of three verb tense suffixes – all ending in /s/, all featuring a different vowel, and all invariant in form – taxes credulity. No form is reconstructible as an origin for the future tense suffix, and the future tense's relative temporal reference in subordinate clauses is, at the very least, highly unusual for a Romance language. If someone would like to see an explanation for how the usage evolved from an early usage, there is no path of evolution provided. In fact, all of the vocabulary and grammar of Esperanto was derived somewhat haphazardly from European languages, with no attempt at providing a realistic linguistic evolution from a proto-stage. It is highly unlikely that Esperanto could be confused with a realistic language in a natural setting. That is, the Esperanto language could likely not have evolved naturally in a community of human speakers due to its high regularity.

By contrast, the phonology, lexicon, and grammar of Dothraki have been evolved (i.e., invented sound changes and grammaticalization processes have been intentionally applied to simulate a fictional linguistic evolution) to give the impression that it has been used for many centuries within a speaker community. As with any language, there are areas that will look regular or simplistic, but further examination will show that all elements of "modern" Dothraki show the hallmarks of linguistic evolution. Where Dothraki has an odd feature, an exact pathway of grammaticalization has been provided to explain how it came to exist. This is precisely what one would expect from any natural language spoken on Earth, whether the pathway has yet been adequately explained by linguists or not, and exactly what one would hope to expect of a language that is supposed to have arisen naturally among a community of human language users, fictitious or otherwise.

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Esperanto and Dothraki were created for different reasons and, therefore, have different systems and features. Comparing Esperanto and Ido or Esperanto and Novial, however, does make sense, and this is why the field of interlinguistics has such a rich history. In the late 19th and early 20th century, there were many created languages that all had the same goal – so much so that it was hard to imagine, at that time, any created language having any other goal.

Evaluating without a comparable conlang

In evaluating a conlang, then, we argue that establishing the purpose of the conlang, and finding conlangs with a similar purpose is the most logical and valid comparison. Even without a language with a similar purpose to use for comparison, it is still possible to assess how well a conlang achieves its goal. For example, one does not need to look at other auxiliary languages to notice that all parts of speech in Esperanto end with different sounds except for infinitives and pronouns, which both end in /i/. Some of the goals for Esperanto were for the language to be clear, unambiguous, and easy to learn. Having both pronouns and infinitives end in /i/ seemingly defies that goal. Is this a major drawback of Esperanto? Conlangers, in general would not point this out as a fatal flaw. After all, pronouns, which are also small and few in number, are unlikely to be confused with verbal infinitives.

Another question to be asked in the evaluation of conlangs is when and why a conlang should be critiqued. Creators will often offer their work for feedback and evaluation – either explicitly asking for it, or implicitly, by sharing it in a public forum or publishing it in some form. This applies to first time and more seasoned conglang creators equally. In the history of film and TV, for example, a number of language creators have been to paid to create conlangs as first time creators (Victoria Fromkin's Pakuni, Marc Okrand's Klingon, Paul Frommer's Na'vi, Christine Schreyer's Kryptonian, Ryan Hearn, and Joseph Ryne's Torfan, among others). All achieved prominence, and informal evaluation by the conglang community.

In the early 1990's, conlangers began to come together to discuss language creation on the internet, and since then, the community has been pushing toward the production of higher quality work. Conlanging is still in its infancy as an art form, but part of the way forward is serious engagement from those who would take any interest in it. Our aims in this publication have been to spark interest and provide the first methodological guidelines for how to engage seriously with created language.

References

Peterson, D. J. (2015). *The art of language invention: From horse-lords to Dark Elves to sand worms, the words behind world-building*. Penguin.

Schreyer, C. (2023). Language creation and engagement: A how-to guide. In H. Price, and D. McIntyre (Eds.), *Communicating linguistics: Language community and public engagement* (pp. 208–219). Routledge.

Shenton, H. N., Sapir, E., & Jespersen, O. (1931). The function of an international auxiliary language. *Psyche*, *11*(4), 4–15.

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