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Expressives and Expressivity

Abstract: This paper considers the questions of translatability and expressive power. It is argued that truth-conditional content is always translatable, and does not produce differences in expressive power. Most non-truth-conditional content—presupposition, 'side effects' such as anaphora, and conventional implicature—is shown to not always translate successfully, but still not to produce genuine differences in expressivity. This last property appears to clearly hold only of terms which introduce expressive content: only for such content is genuine incommensurability found in natural language. Some implications of these findings are discussed.

Keywords: expressive content; translation; expressive power

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1 Introduction

This paper is concerned with the question of whether all natural languages have the same expressive power: is it true that anything that can be said in a given language can also be said in any other? Previous research on the topic has generally concluded that there are no substantial differences in expressive power across languages; for instance, according to (Katz 1976), though it may not always be the case that a given sentence in language $\mathcal{L}$ can be translated into language $\mathcal{L}'$ in a way that preserves all aspects of the sentence's meaning, both $\mathcal{L}$ and $\mathcal{L}'$ are able to express the same propositions. However, there is also the larger question of whether there are expressions in $\mathcal{L}$ that have no correspondents in $\mathcal{L}'$ at all. Thus there prove to be two related questions about expressive power: 1) can every sentence be translated in a way that preserves all aspects of the sentence's meaning? 2) are there sentences which literally cannot be translated, i.e. do natural languages genuinely differ in expressive power, and, if so, what domains of meaning can these differences be traced to? These two questions are the focus of this paper.

My strategy will be to begin with the question of translatability and use the results to draw conclusions about expressivity. The basic idea will be that if all expression of $\mathcal{L}$ have meaning-preserving translations in $\mathcal{L}'$, and if there is an inverse mapping, then the two can be taken to be equivalent in expressive power. Conversely, if there is an expression of $\mathcal{L}$ which lacks a proper translation in $\mathcal{L}'$, then it is possible that the expressivity of $\mathcal{L}$ exceeds that of $\mathcal{L}'$; it is also possible that some other factor causes the failure of translation. Thus, before trying to answer the questions of this paper, it is crucial to decide what having a meaning-preserving translation consists of. We can distinguish three notions of increasing strength. Let S be the sentence that is the object of the translation and T be the translation. Note that, crucially, S and T may not be single lexical items, or even necessarily of the same syntactic type: for instance, S may be a term and T a phrase, a situation which is quite common in ordinary translation.

(1) a. Truth-conditional equivalence (TCE): S and T have the same truth conditions.
b. Expressive equivalence (EE): S and T express the same narrow content.
c. Pragmatic equivalence (PE): S and T behave identically in discourse.

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TCE is more or less self-explanatory. PE is quite strong: it requires equivalence in all respects, including truth conditions, but also equivalence with respect to other kinds of content, and even the ways in which *S* and *T* change the context, so the side effects of their use in the sense of e.g. Shan (2005), for example the introduction of discourse referents and so on.

EE is an intermediate notion and the one we will be most concerned with here. This notion does not require equivalence with respect to side effects, but demands equivalent with respect to all sorts of narrow content, not just truth conditions. Here, by "narrow content" I mean content which is conveyed by the user of the expression at an object level rather than a metalevel. It therefore subsumes truth conditions, but also conventional implicature and expressive content, and excludes presupposition, which on normal conceptions functions to structure the discourse or check it against certain communicative expectations. While presupposition can convey new information, it happens through the process of accommodation (Beaver and Zeevat, 2007), which is in a sense a metalevel operation. One diagnostic for narrow content is therefore whether an expression carries (normatively) hearer-new information. My claim in this paper will be that while all natural languages are TCE, none are PE, and, perhaps surprisingly, none are EE either; so what can be expressed differs across languages in terms of what is conveyed by language, not merely by communicative structure.[1]

Note that PE is stricter than TCE in that any pair that satisfies PE will also satisfy TCE on standard assumptions about processing of non-truth-conditional content.[2] I will argue that, while every pair of natural languages $\mathcal{L}$, $\mathcal{L}'$ satisfy TCE, there is *no* pair $\mathcal{L}$, $\mathcal{L}'$ that satisfies PE, on the seemingly warranted assumption that no two languages have exactly the same set of constructions that introduce pragmatic content. As a result, the answer to the first question posed above is negative, for the case of pragmatic equivalence.

This finding, however, does not provide a direct answer to the second question. That a sentence cannot be translated effectively into a language $\mathcal{L}'$ does not mean that it expresses something that $\mathcal{L}'$ cannot express. There are (many) other possible reasons for translation failures than genuine differences in expressivity, as we will see. This means that the relevant notion for questions of expressivity is the weaker EE. To find such differences, we must look for a domain of meanings that cannot be expressed in any other way. As it turns out, there is in fact such a domain: expressive content and use-conditional meaning. With respect to this domain, languages can differ in expressive power. The reason, I will claim, is that while other sorts of meanings can participate in compositional processes, expressives in general cannot, which means that the expressive content available in a particular language is constrained by lexical idiosyncrasy in an irreparable manner.

The plan of the paper is as follows. I elaborate on the first part of the answer to the first question in section 2. There it is shown that the reason for the availability of translations is the possibility of semantic modification. The second part, involving non-truth-conditional meanings, is more involved, and the data is (in my opinion) more interesting. I devote two sections to it. Section 3.1 discusses presupposition, which is the standard case used to argue against the possibility of PE (Keenan, 1974), and also conventional implicature, focusing on the test case of apposition, as discussed in the work of Potts (2005). Here, too, we find potential translation problems, though this case is more controversial. Still, though, no differences in expressive power can be found. The subject of section 3.2 is discourse anaphora and linguistic side effects more generally. Building on the work of Rullmann and You (2006), I show that such non-truth-conditional meanings introduce insoluble problems of translation, but ones that do not pose problems for EE, only for PE.

1 The notion of narrow content and 'what is said' in general is notoriously hard to define, and has led to extensive debate in recent years. My definition is only one of many (see Borg 2007 for a partial overview). Further, there is some context-sensitivity in what counts as narrow content at all, in a way which can be understood as topic-related (cf. Simons et al. 2011). I believe that my argument goes through on most, though possibly not all, positions on these issues which can be found in the literature.

2 One may also identify intermediate positions for equivalence, for example a notion of equivalence on which the sentence and its translation must have the same truth conditions and introduce and satisfy the same presuppositions, but are not required to otherwise act the same in discourse, or where they must have the same truth conditions and behavior with respect to discourse referents, but not have the same use-conditional content. I will not concern myself here with these intermediate cases.

The main result of the paper concerns cases where we do find differences in expressive power, which are the subject of section 4. Here I mainly consider data relating to expressive content of various kinds (Potts, 2007b; Kaplan, 1999). These cases are special in that they do not even allow for paraphrase. The impossibility of paraphrase here removes the possibility of indirect translation, and opens the door to differences in expressivity across languages. Section 5 concludes the paper with a summary, a discussion of some possible objections, and some directions for future work.

2 Compositional Modification and TCE

In this section I claim that all languages have equivalent expressive power at the truth-conditional level. This is in fact the folk wisdom in linguistics (von Fintel and Matthewson, 2007), and is a claim made at least as far back as the work of Katz (1976), who codifies it as his Translatability Thesis, where it is restricted to the particular case of sentences:

(2) For any pair of natural languages and for any sentence *S* in one and any sense σ of *S*, there is at least one sentence *S* in the other language such that σ is a sense of *S*. (Katz 1976:39)

What does this claim mean? It means that there is no sentence *S* in any language $\mathcal{L}$ for which there is no corresponding sentence *S'* in $\mathcal{L}'$ with identical truth-conditions. (A comment on notation: throughout I will use $\mathcal{L}$ for the original language and $\mathcal{L}'$ for the language to be translated into.) The claim thus boils down to the idea that no language has greater resources than any other for expressing truth-conditional content. For this claim to be shown false, one would have to find a sentence that could not be translated in the sense that no sentence exists in the target language with the same truth-conditions.

It seems obvious that no such sentences exist. The reason is that truth-conditional content admits many different kinds of expression. Assume the standard picture of propositions as sets of worlds, and pick a sentence *S* that expresses only truth-conditional content, hence a proposition. It is well-known that there are infinite means of picking out the contents of any set. One need only make use of the standard logical operations. A simple example: suppose a sentence *S* of $\mathcal{L}$ has the meaning φ, a proposition. φ is equivalent to, among an infinite number of other possibilities, $(\varphi \cap (\psi \cup \overline{\psi}))$, since $(\psi \cup \overline{\psi})$ is a tautology. We can also find propositions ψ and χ that are the denotations of other sentences such that $\varphi = \psi \cap \chi$; since ψ and χ are by hypothesis expressible in the language, there are multiple means of expressing the proposition φ in $\mathcal{L}$. The same kind of trick can be performed for any set, and so for any proposition. This means that, assuming natural languages allow free use of logical operations (conjunction, disjunction, negation), any sentence can be expressed in a different form via the combination of other sentences. So one can express the same sentence denotation in many different ways—in fact, in an *infinite* number of ways.

Thus any proposition can be expressed using sequences of sentences conjoined with this or that logical connective. Note that we are not concerned with the compactness of our representations but only with equivalence of content. For our purposes, expressing a proposition φ with hundreds, thousands, or millions of distinct propositions and connectives is sufficient. The question is only whether equivalent content can be expressed.

All this indicates that one can express any sentence in distinct ways within a single language. I have not yet shown that such a thing is possible across languages. A *priori* it seems not improbable—but note that the result depends on whether distinct languages have enough resources to construct the same propositions at the truth-conditional level. Where might one look for a counterexample? The most obvious difference between languages is in the concepts they lexicalize. While all languages seem to have more or less equivalent words[3] for simple classes of objects—*dog, tree, table*—it is not difficult to find lexical items that are present in one language and not in others.

3 Truth-conditionally speaking. See section 3.2 for more on this issue.

Let us consider a case in which some concept is lexicalized in $\mathcal{L}$ and not in $\mathcal{L}'$. One obvious area to check for such concepts is that of artifacts or created objects. Clearly, any pair of languages spoken in different places by people of different cultures will have different concepts lexicalized in this sense. For example, Japanese has a word *obi* that indicates a piece of padded fabric used to cinch the waist of a kimono. English has no such word. Does this mean they differ in expressive power? Obviously not: I just defined the term *obi* in English without loss of any truth-conditional content. Any other word with only truth-conditional content will be similar, for the obvious reason that any word can be defined via other words, just as with the propositional case above (as is expected given the results of Partee and Rooth 1983): if one assumes a model-theoretic account of word meanings on which they denote sets, any set W_1 will be equivalent to the set obtained by conjoining some number of other sets, possibly themselves constructed from other sets.

(3) $W_1 = W_2 \bullet \ldots \bullet W_n$,

Here • stands in for the logical operations of conjunction and disjunction (so we can get the meaning of any word merely by conjoining some number of others—though we may also need to make use of negation). This indicates that any non-presuppositional word meaning can be derived by using a paraphrase; and this in turn means that languages have the same expressive power at the word level. We will see below that there are cases in which lexical resources become genuinely problematic; but these are not cases that involve truth-conditions.[4]

That truth-conditional content can always be translated is perhaps not very (or even not at all) surprising. What may be surprising is the emphasis I have put here on the possibility of modification. It seems to me that the availability of modification is what accounts for intertranslatability. Without the possibility of using logical connectives, translation would, in the general case, fail. The interest comes in considering cases that are 'beyond truth conditions,' and hence beyond modifiability: presuppositions and other complications from the 'pragmatic wastebasket.' I turn to these cases now.

3 Failures of Pragmatic Equivalence

I claimed above that, while truth-conditional meaning is always translatable, non-truth-conditional meaning is generally not. This means that it is not difficult to find sentences in $\mathcal{L}$ without correspondents in $\mathcal{L}'$ when these sentences have components to their meanings that are not truth-conditional in nature. Below I consider first presuppositions and conventional implicatures (§3.1), and second linguistic side effects, focusing on anaphora (§3.2). As we will see, not all of these allow for translation: in fact, the cases of presupposition and side effects clearly do not, as has been noted by Keenan (1974). (The case of conventional implicature turns out to be more controversial.) But we'll also see that in none of these cases do the differences in translatability that arise lead to differences in expressive power.

3.1 Presupposition and Conventional Implicature

The first pragmatic phenomenon we will consider is presupposition.[5] The basic questions to be addressed are these: Can sentences with presuppositions always be translated, in the way that sentences with only truth-conditional content could be? If the answer is no, does this mean that presuppositions change the expressive power of a language?

Here is the point where we can distill our observations about truth-conditional content. We saw that sentences with only TC content can always be translated—but why was this? Examining the form of the argument, the answer is clear.

4 Note, again, that this discussion only concerns truth-conditional content. The method in the main text clearly cannot apply to stylistic effects of the sort discussed by e.g. Bar-On (1993), which will be returned to in the last section. For more on this point from a semantic perspective, see von Fintel and Matthewson (2007).

5 I take a basic knowledge of this area for granted. A nice exposition of essential issues is Beaver (1997).

Any proposition φ can be derived in multiple ways via set-theoretical operations $\cup$, $\cap$, $^{-}$. Any sentence S in language $\mathcal{L}$ with denotation p can be reproduced in language $\mathcal{L}'$ by combining the denotations $q_1, \ldots, q_n$ of sentences $S_1, \ldots, S_n$ via the set-theoretical operations so that $O(q_1, \ldots, q_n) = p$, where $O(q_1, \ldots, q_n)$ is the result of combining q_1, q_2, ... and q_n via and , with possible additional use of $^{-}$. This argument depends crucially upon two things: the availability of $S_1, \ldots, S_n$, and thus of $q_1, \ldots, q_n$, and the possibility of combining them via $\cup$, $\cap$, $^{-}$. If we lack either of these things, the translation procedure will fail, assuming the argument above is correct.

Now the question to ask is whether we have them both for presupposition. The answer is no; we have neither one in a pure form.

First, presuppositions are very limited in their distribution. Only a few lexical items are presuppositional, so it is not the case that we have a wide palette of objects to work with. That said, there are two considerations to take into account. The first is that all content which is uncontroversially presuppositional is propositional in nature—they all indicate propositions that (roughly) are assumed to be part of the common ground by the speaker. The second is that it is in fact possible to convert any proposition into a presupposition—but the required procedure causes translation to become unfaithful. Let me consider these points in turn.

When one examines discussions of presupposition in the literature, one finds that the canonical examples involve definite descriptions, certain adverbials such as *still*, factive verbs, and clefts (cf. e.g. Beaver 1997). These are the clear cases. There is also a range of semantic or pragmatic effects that have been analyzed as presuppositional, but which are not clearly presuppositional in terms of their semantic behavior. Examples here are Φ-features on pronouns, the content of classifiers, and selectional restrictions: they can be analyzed as presuppositional, seemingly appropriately since they do not contribute directly to truth conditions but put conditions on possible arguments or referents (e.g. Sauerland 2008). However, they do not obey the usual tests for presupposition: they don't respect presupposition plugs, nor can they be bound in conditional antecedents, among other features, as discussed by McCready (2012) (see also Sudo 2012; Nomoto 2013), who consequently analyzes the classifier case as an instance of conventional implicature.

We can also find cases which have been analyzed as presuppositional and also as expressive or even conventionally implicating, but which can't be clearly shown to fall into any of these categories because of their particular content. In particular, if natural language doesn't make available a natural way to express the (apparent) content of a lexical item, or if there exist metalinguistic conditions on the use of that item, it is extremely difficult to apply the usual tests. Consider by way of example the content of discourse particles such as the German *ja*, English *man*, or Japanese *yo* (McCready, 2008; Davis, 2009; Gutzmann, 2012). These particles have been argued to have various sorts of meanings, generally related to the information possessed by speaker or hearer, or to the utility of sentential content to the processor. Is such content presuppositional or expressive? There is no obvious way to express it in such a way that binding tests (for example) could be applied, so nothing like a conclusive answer to the question has been proposed. Another example, raised by a reviewer, is the possible condition on indicative conditionals that their antecedents are compatible with the common ground. I will leave cases like these out of the paper entirely, for I can make my case without them, and I believe that their status is currently too unsettled form the basis of an argument.

The lack of presuppositional 'variety' is only problematic if there are presuppositions in $\mathcal{L}$ that ado not exist in $\mathcal{L}'$. If there is nothing in $\mathcal{L}$ that introduces a presupposition that is not present in $\mathcal{L}'$, then there will obviously be no difficulty in translating presuppositional content. However, it is not difficult to find expressions in one language that presuppose things for which there is no counterpart in another. Given the heterogeneity of (phenomena that have been analyzed using) presuppositions discussed in the previous paragraphs, my strategy here will be to consider two examples of (possible) presuppositions: the uniqueness presupposition of English definite descriptions (e.g. Elbourne 2013), and the presupposition/ conventional implicature associated with classifiers mentioned above.

The requirement for uniqueness associated with definites is more or less uncontroversially presuppositional. Let us state it as in (4).

(4) $\exists x[P(x) \wedge \forall y[P(y) \rightarrow x = y]]$

This of course is a proposition. Now consider a translation of a noun phrase of the form *the P* into Japanese. Such translations present numerous problems for translation (more will be discussed in §3.2). There are many possible ways to translate such a definite in a discourse-initial context,[6] but two natural possibilities are as a bare nominal or as a nominal of the form *sono P* 'that P'. However, the former can be interpreted as indefinite, and so does not consistently come with a uniqueness presupposition, and the presupposition associated with the latter is not related to uniqueness but rather (as one would expect) to the usual presuppositions of demonstratives. In fact, there appears to be no direct and uncontroversial analogue to the English definite in Japanese, at least not one which comes with a uniqueness presupposition. This, then, is one case of the kind we are interested in.

For another example, consider the case of classifiers. Japanese, like many other languages of Asia, requires classifiers for numeral quantification: numeral noun phrases thus have the form *Numeral+Classfier+N*, where the particular classifier is tied to the type of noun used. Classifiers are quite various. For instance, there are classifiers for people, birds, long, thin objects, and pairs of shoes. If the wrong classifier is used, infelicity results, a fact which has caused many to think of classifiers as introducing presuppositions to the effect that the objects being counted are of the class associated with the classifier. This position has recently been contested by McCready (2012), who claims that they are conventionally implicating (see also Nomoto 2013). The case of classifiers is thus one of the controversial intermediate cases discussed above. Let us suppose for the purposes of this discussion that they are presuppositional, and assign them the following kind of denotation, illustrated here for the case of *nin*, the classifier for human beings.[7]

(5) $[\![nin]\!] = \lambda P \partial[P \subseteq Human]\{x : x \in Atom(P)\}$

The above restricts the argument of the classifier, assumed here to be the nominal predicate,[8] to the atoms comprising the predicate denotation (cf. Chierchia 1998), and presupposes that it quantifies only over human beings. (I use the ∂ notation to indicate presuppositional content.)

The question now is whether English has any expression with an analogous presupposition. It appears that it does: the meanings of terms of venery like *flock of seagulls* or *murder of ravens*; but this class is rather restricted, and none of these are appropriate for humans, much less for classifiers in general. So here we have another instance of a case in which a presupposition (or, in this case, a conventional implicature) can be found in one language and not in another.

Is it possible to construct a presupposition in English that corresponds to the presupposition of *nin*, or one in Japanese that corresponds to the presupposition of *the*? Let us pick up, for a test case, the uncontroversial case of *the*. At first glance the project may appear trivial. We merely need to find a sequence of expressions which, when combined via $\cup$, $\cap$, and $^{-}$ yield the content in (4). It is not difficult to find such expressions. However, the result is plainly unsatisfactory, because the content is no longer presuppositional, but has strayed into truth-conditional content. The difficulty is that we need to add this content *as a presupposition*. Now this would be unproblematic if we were able to find presuppositional expressions in Japanese that had the relevant content. But there seem to be no obvious candidates.

Could we construct some from other presuppositions? This is what we did for the analogous case of truth-conditional content. But this won't work for the presuppositional case, for they are drawn from a domain which has only an attenuated compositional structure.

The first problem is that presuppositions are parasitic on truth-conditional content. There do not seem to be expressions that have presuppositions but no truth-conditions.[9] This means that, even if we find expressions with the right sort of presuppositions, using them will introduce undesired truth-conditional

6 I make this stipulation in order to filter out irrelevant pronominal translations.

7 If they are conventionally implicating, the argument transfers directly to the discussion of conventional implicature presented later in this section.

8 In fact, this is morphologically unrealistic: the classifier actually combines with the numeral, so its denotation must function to restrict the first argument of the numeral quantifier. See McCready (2012) for discussion of this point. The simplification here is made for purposes of exposition; I do not believe it has a serious impact on my argument.

9 Again, discourse particles such as the Japanese *yo* may be exceptions here, but they will not help us in the present context.

content superfluous to the translation. Suppose, for instance, that we make use of the factive verb *shiru* 'know'. This verb is generally taken to presuppose the truth of its complement,[10] so we can use it to create the desired presuppositions by placing them in the complement of *shiru*. We therefore can utilize the Japanese translation of the following sentence:

(6) The speaker knows that there is a unique (salient) object satisfying *P*.

This statement indeed presupposes uniqueness. This is what we needed. However, it also adds extraneous truth-conditional content, namely that the speaker knows that. Of course, this is implicit in the presupposition as well. But adding it explicitly makes it available for felicitous denial, despite the fact that any non-metalinguistic denial targeting the presupposed content is bizarre. This proposal is thus a non-starter.

There is another problem as well that keeps us from being able to use the technique we used above for truth-conditional content to produce the presupposition in (4). The reason we could make use of $\cup, \cap, ^{-}$ in the truth-conditional case was the existence of the natural language expressions *and*, *or*, *not*. These expressions can be used to *alter* the truth-conditional content which is expressed. But there is no corresponding way to modify or alter presuppositional content. We can conclude that the reason for universal translatability lies in the possibility of modification. If we can't compositionally produce complex expressions, we can't translate (in the general case). The first question, then, gets a negative answer: expressions containing presuppositions cannot in general be given faithful translations.

Let us turn now to the second question. What effect does this failure of translatability have on the expressive power of the languages in question? This question has a direct and simple answer: none. Whether or not a translation exists from $\mathcal{L}$ to $\mathcal{L}'$ for every sentence of $\mathcal{L}$ is not directly relevant to the question of expressive power. Why? There are two possible reasons for a failure of translation. The first is that one language can express things that the other cannot. This obviously corresponds to a difference in expressive power, but this is not what is going on in the present case. The other possibility is that one language contains content in a domain in which the other does not, but the second language can duplicate this content in a different domain. Suppose that $\mathcal{L}$, $\mathcal{L}'$ have two domains of content each: call them D_1, D_2 . Then there may be $\varphi \in \mathrm{D}_1(\mathcal{L})$ such that $\varphi \notin \mathrm{D}_1(\mathcal{L}')$ but $\varphi \in \mathrm{D}_2(\mathcal{L}')$. This corresponds to the current case: a part of the definite article's content is presuppositional in English, but cannot be (faithfully) reproduced as a presupposition in Japanese. Still, English can express that content, but in the truth-conditional realm.

This last consideration leads us to the final picture for presuppositions: one cannot always translate presuppositional content—otherwise stated, that content cannot always be given a semantically faithful paraphrase, but this doesn't mean that the presupposition in the source language can say something that can't be expressed *at all* in the target language. If we want a genuine difference in expressive power, then, we must look elsewhere.

We now turn to a potentially more controversial case of failure of translation, that of conventional implicatures. Conventional implicatures were originally discussed (briefly) by Grice (1975), and were subsequently given a detailed analysis from a linguistic perspective by Potts (2005). According to Potts, conventional implicatures can be defined as the class of expressions whose meanings have the following four characteristics:

(7) a. The meanings are conventional
b. They introduce commitments, and so entailments
c. These commitments are speaker-oriented
d. The content they introduce is independent of 'what is said' (understood in the sense of the 'ordinary' truth-conditional content of the sentence containing them)

10 See Williamson (2000) for a different view of *know*; it should also be noted that there is some controversy about the behavior of attitude predicates with respect to factivity in languages including Japanese.

Potts notes several classes of linguistic object that have these characteristics.[11] The one we will focus on here is the class of nominal appositives.

(8) Lance, a cyclist, won the Boston Marathon.

Here, the content of *a cyclist* has all the characteristics above: it is a commitment of the speaker, and is independent of what is said. This latter fact can be seen in two distinct ways. The first is by attempting to embed it under semantic operators that function in the truth-conditional domain. The second is by attempting to deny it.

(9) a. Lance, a cyclist, did not win the Boston Marathon.
b. If Lance, a cyclist, wins the Boston Marathon, he might well end up with a celebrity girlfriend.

(10) a. A: Lance, a cyclist, won the Boston Marathon.
b. B: That's not true.

In the examples in (9), it is clear that whether or not Lance is a cyclist is independent of whether the sentence is judged true.[12] The truth of (9b), for instance, is conditional only on what would be the case if Lance won the Boston Marathon; whether he is a cyclist is immaterial, though if he is not the sentence is inappropriate. In the dialogue in (10), B denies only that Lance won the Boston Marathon, not that he is a cyclist. Thus we can see that the content of nominal appositives like this one is independent of truth conditions.

The application of the first condition is slightly more difficult, and it is here that our potential problems of translation start to appear. The first condition states that the relevant meaning is conventionalized. But obviously *a cyclist* is not associated with any convention that makes it introduce a conventional implicature; sometimes, indeed most of the time, it is just an ordinary indefinite. Potts takes it that what is conventionalized here is not the meaning of the words themselves, but rather the appositive construction. He analyzes this construction as associated with a comma feature which both introduces a conventional implicature and gives the appositive construction its characteristic English intonation.

Now we might wonder: can we find similar constructions in all languages? The answer is no: at least, it is not the case that every language has a construction that means roughly the same as nominal appositives and makes use of a direct analogue of the comma feature. Let us again use Japanese as an example. The construction that is usually taken to correspond to apposition in Japanese is simple: it involves simply adjoining a noun phrase to the 'host' noun phrase via the genitive postposition *no*. This yields the following as a translation of (8).

(11) jitensha-nori-no	Lance-ga	Bosuton	Marason	de yuushoo	shita
bicycle-rider-Gen	Lance-Nom	B.	M.	in victory	did

'Lance, a/the cyclist, won the Boston Marathon.'

This construction is not associated with any special intonation, and so (presumably) lacks the comma feature. As a result, it is not a direct correlate of English appositives, and it's hard to see how the meaning can be regarded as conventionalized in the relevant sense. Still, this doesn't mean that any translation problems arise from appositives. The Japanese construction means more or less the same thing as the English one, and so there seem to be no major difficulties in translating between the two.[13]

11 Notably, Grice's original example, connectives like *but*, is not among them.

12 See Dever (2001) for a different intuition.

13 A reviewer wonders whether this argument is weakened by the lack of special intonation in Japanese; if Japanese lacks the comma feature, then isn't it problematic that translation is possible? I believe that actually it is the opposite: here, we see that the lack of the same locus of the conventional implication does not bar translation, so worries about translatability of conventional implicature can be defused still further.

Of course, we may nonetheless get distinctions in translatability here: for instance, if we wished to translate the Japanese example above, we would not know (lacking a context) which of the following was meant:

(12) a. Lance, a cyclist, won the Boston Marathon.
b. Lance, the cyclist, won the Boston Marathon.

But this is the problem of translating bare nominals, and is not the result of using the appositive.

The reader may now be wondering why I brought up conventional implicatures, and appositives, at all. They introduce neither translation problems (assuming that a given language has an analogue of this construction) nor, by extension, differences in expressive power. There are two reasons. The first is completeness: after presuppositions failed to change expressive power, it was natural to investigate conventional implicatures. The second is more substantive: something important can be learned from the above discussion. Appositives (and probably non-expressive conventional implicatures more generally) are not good candidates for producing differences in expressive power at all. The reason is that things like appositive clauses always get produced from other, existing, lexical items: *a cyclist, who is from Texas*, and so on. This is analogous to the case of presupposition and should be understood as an indicator that we do not have an extension in expressive power. The use of existing lexical items makes it impossible to express anything genuinely disjoint from truth-conditional content.[14] The strongest distinction we can get is the case of presuppositions above, where a meaning M was part of a domain D_1 in $\mathcal{L}$ but part of a different domain D_2 in $\mathcal{L}'$. We therefore can see more clearly where we must look if we want to find such differences: in an area where we have genuine differences in what *individual lexical items* can express. I turn now to a case where we do find a real difference, but differences relevant only at the PE level, not the level of expressiveness EE that will concern us.[15]

3.2 Discourse Anaphora and Linguistic Side Effects

Another place we find expressions that cause genuine problems of translation is in expressions with what have been called 'linguistic side effects' (Shan, 2005). Linguistic side effects are results of the use of some expression that are not related (in some sense) to the expression of truth conditions, which is taken to be the primary function of language. For instance, consider (13).

(13) A man walked in.

(13) is true iff there is some individual who both is a man and walked in. An utterance of (13) communicates the speaker's belief that these conditions hold in the world. But using this sentence also does other things: for instance, it indicates the speaker's willingness to communicate with his interlocutor, and that his vocal cords are functional. These are side effects—information conveyed by using the sentence, but information which is not the main goal of the utterance. The side effect relevant for our purposes is that use of (13) also licenses discourse anaphora.

(14) A man walked in. He looked cold.

Singular indefinites like *a man* make available the possibility of using singular pronouns. This effect is a direct result of their primary meaning, but still is not the primary meaning: thus the notion of 'side effect.'

Note that singular indefinites do not license plural pronouns.

14 Excluding cases in which a sequence of words are frozen and acquire an independent meaning, of course.

15 The conclusion follows for appositives and presuppositions. It would not necessarily follow for conventional implicatures that come from lexical items or other sources such as intonation (Potts, 2007a).

(15) A man walked in. ?? They looked cold.

Conversely, *some men* makes available the possibility of using plural pronouns; but singular pronouns are infelicitous, so the pattern is the converse of what we see above.

(16) a. Some men walked in. ?? He looked cold.
b. Some men walked in. They looked cold.

Complications develop when one wants to translate expressions with linguistic side effects in a way that preserves these side effects. It turns out to be in many cases impossible.

Continuing with our example of anaphora licensing, let us consider possible translations of (13). I will use Japanese as the target language. The obvious candidate for translating the subject NP is a bare nominal. Many languages, including East Asian languages like Chinese and Japanese, make extensive use of bare nominals; these forms have a variety of interpretations. They can be understood as either singular or plural, as definite or indefinite, or even as generic (see e.g. Chierchia 1998; Dayal 1999 for more on these objects). As a result, they license a variety of kinds of anaphora. Here is an example from Japanese.[16]

(17) a. Otoko-ga haitte-kita.
man-Nom came-in
'A man/Men walked in.'

b. Kare-wa/Kare-ra-wa samu-soo datta.
he-Top/he-PL-Top cold-EVID was
'He/They looked cold.'

Thus bare nominals enable both plural and singular anaphoric pronouns in later discourse, due to their inherent underspecification (or ambiguity).

No English expression duplicates this. The best we can do is a disjunction: 'a man or men,' but this fails as it sounds odd to use a singular pronoun after.

(18) A man or men walked in.
a. They looked cold.
b. ?? He looked cold.

Here, again, is a case where translation seems impossible, as noted by Wang and McCready (2006).

The reason in this case is related to the presupposition case, but differs in some respects. Presuppositional sentences asserting ϕ and presupposing ψ put conditions on context, specifically that the context support ψ; since there is no guarantee that an expression presupposing ψ is available in $\mathcal{L}'$, translation may well fail. But this says nothing about the expressive power of $\mathcal{L}$ or $\mathcal{L}'$ as such. The anaphora case represents the same problem in the opposite direction of discourse; introduction of anaphoric possibilities has repercussions downstream in the discourse, but has little to say about what happened previously or what holds at time of utterance. Again, as we've just seen, there is no guarantee that paraphrases exist for some expression that have identical possibilities in terms of anaphora licensing. But, again, this has nothing to do with expressive power *per se*. So, in both these cases, while no effective translation exists, expressive power remains the same.

16 A few comments: the plural suffix *-ra* has been extensively discussed by Nakanishi and Tomioka (2004). Tomioka (2006) provides a further puzzle. The suffix *-soo* is an inferential evidential; more information on it can be found in McCready and Ogata (2007).

4 Differences in Expressivity

The last kind of case I want to consider involves what have recently been called *expressive meanings*. I first lay out what these meanings are and give some examples in 4.1, which will clear the way for considering our main question, whether they can induce differences in expressivity, which we turn to in 4.2. The conclusion will be that this area of language is the only one that offers genuine differences in expressive power.

4.1 Defining Expressive Meanings

Let us begin by looking at some examples of expressive meanings, in (19).

(19) a. Where is my goddamn wallet?
b. Ouch.

In the above we see two distinct kinds of expressives. (19a) is a standard kind of example in this area (cf. Potts 2005, 2007b). Notice that *goddamn* in this example, along with other 'swear words' like *fucking* or *bastard* are not strictly descriptive: none of them retain their literal meaning. My wallet in (19a) has not been damned by any god, nor need John be the son of an unmarried woman to be a bastard, and so on. Instead they indicate something about the speaker's mental state and her attitudes toward the denotation of whatever linguistic object they modify. In a sense, their use expresses something about the speaker, not about the object. This is the reason they are called expressives.

(19b) is a different kind of example discussed in some detail by Kaplan (1999). Here, again, what is expressed is speaker-dependent: the sentence indicates in a null context that the speaker is in some relatively minor pain.[17] But this content is not truth-conditional in any way. One could not turn to someone who has just said (19b) and say 'But that's not true!' Doing so would make no sense, for the speaker has not made any claims about truth. She has merely expressed something about her mental state. Something similar happens in (20).

(20) a. Hello.
b. Goodbye.
c. Thanks.

Nothing here has been said that is true or false; but something has been expressed that may or may not be appropriate in a given setting. Kaplan therefore calls these *situational meanings*. We will see more of them shortly.

One unifying characteristic of the above expressions—as noted by Potts and others—is that they are very difficult to paraphrase satisfyingly, if not completely impossible. What is the right paraphrase of 'Hello'? How should one rephrase 'your fucking dog' in a way that retains its meaning? The first question does not even admit a reasonable answer, as far as I can see. The second has been tried often in bowdlerized speech;

17 Actually this characterization is too simple. (19b) could very well express that the speaker thinks that something must have given minor pain to someone else, e.g. if a friend hits his thumb with a hammer while doing some home carpentry, one might well say 'ouch' in empathy. This sort of empathy is probably best considered as a shift in the logophoric center, so the best characterization of expressives might well be as terms that indicate something about the logophoric center. This would fit in well with observations that have been made by Kratzer (1999) and Schlenker (2003) about shifts in expressive interpretation under attitudes; existing accounts of logophoric shifts in such contexts could then come into play (e.g. Schlenker 2003; Anand and Nevins 2004; McCready 2007a,b). I will not pursue these points further here.

the ubiquity of words like 'flipping' or 'dang' indicates that expressive content cannot be done without in these cases.[18]

Potts (2007b) provides a definition of expressive meanings, as he did for conventional implicatures. There are some commonalities to the two definitions—notably independence— but they are mostly distinct.

(21) *Expressives* are items that satisfy . . .
- a. Independence: Expressive content contributes to a separate dimension of meaning
- b. Nondisplaceability: Expressives predicate something of the utterance situation
- c. Perspective dependence: Expressive content is evaluated from a particular perspective (often the speaker's)
- d. Descriptive ineffability: Speakers are never fully satisfied when they paraphrase expressive content using nonexpressive terms
- e. Immediacy: Expressives achieve their intended effect by being uttered
- f. Repeatability: Repeating an expressive strengthens its content; it is not redundant.

Note that (21d) is the property described above of lacking acceptable paraphrases. It is easy to see that this property might have repercussions for expressive power, which, as we will see, is the case.

These properties look pretty different from what we have learned about truth-conditional content. In fact, Potts has taken them to motivate a very different semantic treatment of expressive content from what we are used to for truth-conditional content—different enough that it is not easy to approximate it fully with our simple set-theoretic toolkit.

Potts takes expressives to function just to *change the context* in particular ways. On standard analyses of assertion, of course, truth-conditional content also changes the context (e.g. Stalnaker 1979; Veltman 1996), by eliminating possible worlds in the belief set of the interpreter (and in the common ground) that are inconsistent with the newly learned information. For instance, suppose that an asserted proposition p contains w_1 and w_2 but not w_3, while the information state of the hearer before update contains all three worlds as live possibilities. Then $\{w_1, w_2, w_3\} + p = \{w_1, w_2\}$. Notice that we can think of this as just one parameter of the information at play in a conversation. It involves only 'factual' information, information about what facts hold in the world, that can be potentially denied—i.e. it represents propositional content.

Potts's idea is that expressive content works on a different parameter of information, specifically (in the case of items like *damn*) a parameter that marks how individuals feel about objects in the world. If this is the case, it is not hard to see why some expressives might not translate—in the target language, there just might not be expressions that indicate the same feeling; or, for situationals, which we might take to indicate that the utterance takes place in a certain kind of context, situation.[19] Note that propositional expressions won't do the job: they don't change the right context parameter. This is one way to understand the reason that expressives cannot be denied.[20]

(22) a. A: That damn dog came in again.
b. B: That's not true ...

With this general information about expressives in hand, we can turn to the consideration of their expressive power.

18 I should note that Geurts (2007) questions how unique this trait is to expressives, arguing that even words like *dog* don't have completely satisfying paraphrases. While this may be true, these words do seem to have paraphrases that are *truth-conditionally equivalent*; one can string concepts together until their totality picks out the class of dogs, as discussed in section 2. It seems to me that this is where the difference lies.

19 I am not aware of any fully developed formal analysis of situationals, but the suggestion in the main text surely represents one possible story.

20 Potts's analysis is different in that it makes use of a special semantic rule developed for conventional implicatures in his earlier work.

4.2 Differences in Expressiveness

We are now in a position to ask whether languages can differ in what they can express using expressive content. This case is the last where we can try to find a genuine difference in expressive power.[21] To approach this question, we should consider what we have learned from our previous cases. From the truth-conditional case we learned that the possibility of translation depends on the availability of sentences $S_1, \ldots, S_n$, and thus of propositions $q_1, \ldots, q_n$, and the possibility of combining them via $\cup$, $\cap$, $^-$. This is just to say that we need a) enough meanings and b) ways to combine them, in order to always be able to translate. From the presuppositional case and that of conventional implicature we further learned that just not having the above ingredients does not necessarily indicate a difference in expressive power. We saw that there are presuppositions that could not be translated *as presuppositions* without introducing extra content, but still could be translated as truth- conditional content. This means that there is no difference in expressive power as such. The conventional implicature case further showed that differences in expressive power should be looked for at the level of lexical items; although constructions introducing 'special' kinds of content may not be effectively translatable, this does not indicate a difference in what can actually be expressed. So at this point we are looking for content associated with individual lexical items that cannot be translated at all, not just content that cannot be translated as expressive content.

Thus, to find difficulties for translation, we must show that there is a language $\mathcal{L}$ that has expressives carrying content which is not any expressive in a second language $\mathcal{L}'$. We will now see that such cases are easy to find.

The first place we might look is to expressions like *damn* and *fucking*. Here, since it is not clear how to paraphrase these items, it is not clear what their correct translation should be. Candidate objects do arise. In the case of Japanese, we might try the nominal *kuso* 'shit' in its use as a nominal modifier.

(23) a. kuso gaki
shit brat
'fucking brat'
b. kuso oyaji
shit old.man
'fucking old man'

Intuitively, the translation of these examples is natural. But there is a question about whether it *directly* corresponds to the meaning of *fucking*. Both indicate a strong negative attitude on the part of the speaker, in these examples. It is difficult to determine, however, whether the degree of strength this attitude has is the same in both cases. It is not hard to see that *damn* expresses a weaker attitude than *fucking*; but in the case of interlanguage comparisons, the situation is much more vague. One would like to look elsewhere to find a clearer example.

Such an example is easy to find. Honorifics have been argued by several authors to be expressive in nature (e.g. Potts and Kawahara 2004; Sells and Kim 2007; McCready 2010; Watanabe et al. 2014).[22] Here are two examples, one of a 'performative honorific' and one of a subject-oriented honorific.

(24) Ame-ga furi-mashita.
rain-Nom fell-Hon
'It rained. [I am speaking nicely to you]

21 The only remaining kind of content currently recognized is that deriving from conversational implicature, but this kind of content is not part of linguistic meaning proper and so is not a proper object for the present inquiry.

22 Additional support for this analysis comes from the following observation. In Japanese news programs, interviews are usually provided with subtitles regardless of language. Japanese interviews are almost invariably subtitled without the honorific content. Potts et al. (2009) indicate that expressive content does not participate in a variety of 'matching' constructions such as ellipsis. It is therefore expected that this content can be factored out from the propositional content in contexts such as the news, where information about politeness is irrelevant or inappropriate.

(25) Sensei-ga omesiagari-ni natta.
teacher-Nom eat.Subj.Hon-Dat became
'The teacher ate. [the speaker honors the teacher]

Can these sentences be translated into e.g. English? To answer this question, we must first decide exactly how they should be paraphrased: what do they mean exactly? Potts and Kawahara (2004) give a gloss much like the one in (25) above: that the speaker honors the teacher.[23] This gloss is already slightly misleading. The speaker need not *actually* feel that the teacher should be honored, or in fact honor the teacher. The speaker need only feel that the expression is appropriate. Some alternative possibilities are given in (26).

(26) a. The teacher deserves respect.
b. I respect the teacher.
c. We respect the teacher.

However, none of these seem to quite capture the meaning of the honorific.[24] (26c) cannot be right, as the interlocutor need not have any feelings whatsoever toward the teacher for (25) to be appropriate. Somehow neither (26a) nor (26b) seems to fit the bill perfectly either: (26b) is too personal, (26a) too impersonal, despite its perspectival base in the speaker's attitudes. Thus a semantics based on genuine respect seems to be on the wrong track.

This situation is discussed extensively by McCready (2014). On the analysis of that paper, the context makes available a register, defined as a subinterval of [0,1]; intuitively, higher numbers correspond to more polite registers. The register of a particular conversation is determined on the basis of several factors: among others, the relative social positions of the conversational participants, their familiarity with one another, the situation of use. Honorifics are taken to specify particular registers, and their use is appropriate if the specified register is compatible with the actual one. In addition, the use of honorifics can have register-shifting effects on discourse, which can have impacts on discourse-level patterns of honorific use (cf. McCready et al. 2013). It seems fairly clear that English lacks expressions with this particular meaning profile. If this judgement is correct (which it seems to be, as it has been corroborated by a large number of native speakers), this indicates that honorifics have no effective translation into English. This is not surprising, given the notion of ineffability in (21d). We can then conclude that different languages have genuinely different expressive resources.

The same point can be made by considering expressions with use-conditional content which directly concern situations of utterance. Here are two expressions from Japanese that give trouble.

(27) Otsukare.

(28) Yoroshiku.

The word *otsukare* is used in situations where the speaker perceives the hearer to have recently finished some substantial piece of work: for example, when both people have just punched out at work, or when the hearer has just escaped from a bore at a party.[25] It is also possible to add honorifics and tense to this term, which adds additional content:

23 Their formal analysis is closely related, but ties honorification to emotive attitude in a problematic way.

24 It is interesting to note the connection here with the debate about judges that has arisen with the relativist account of modality (DeRose, 2004; Egan, 2006; Stephenson, 2005). There, too, it has proved difficult to select a judge (or group of judges) that is appropriate for all situations. If this connection holds up, it provides further support for the notion that expressives involve a judge parameter, as proposed by Potts (2007b). This idea also connects to the discussion in footnote 17.

25 Attempted translations of this expression found via Google included: *good job, you guys*!, *you must be tired, thank you for your hard work*, and *you're tired*. Plainly none of these are appropriate in all the situations above.

(29) a. otsukare-sama desu
OTSUKARE-Hon Cop.Pres
b. otsukare-sama deshita
OTSUKARE-Hon Cop.Pst

Yoroshiku has a wide range of uses: in certain situations where the speaker is asking the hearer to do something, or when the speaker wants to express her hope that she and the hearer will have a friendly future relationship. This latter use is often translated as *Nice to meet you* or even *Please look on me with favor* because of its occurrence in greetings and introductions. Both words are extremely hard to paraphrase successfully; my attempt here can be considered only partly successful at best. Again, this is no surprise: it is just another instance of descriptive ineffability.

These expressions have no direct English equivalents, and no expressions in English have the same range of *uses* they have. This is just to say that Japanese and English have different resources with respect to situationals as well.

Now consider these two expressions (this contrast is due to Akiko Katsuyama):[26]

(30) Good morning.

(31) Ohayo.

These expressions seem to be (roughly) translations of each other, and are generally treated as such. But the second one can actually be used in the evening. In a situation in which workers on the night shift (or in an industry that operates at night) greet each other, *ohayo* is appropriate. However, it is very strange to use *good morning* in this situation.[27] This indicates that the two are not equivalent: they have different conditions of use. But it is not at all clear how to distinguish them by e.g. modification, because expressives in general do not interact with truth-functional operators like $\cup$, $\cap$, $^{-}$ (as emphasized by Kaplan 1999). This means that expressives do not allow for modification of the relevant sort; but, as we have seen, the availability of compositional processes is needed if translation is to be possible in all cases.

Of course, modification was impossible for presuppositions and appositives as well. The difference with the present case is that expressives and situationals are associated with individual lexical items, and not with constructions (in the general case at least). The result of this combination of characteristics is that they are not translatable *qua* lexical items, and further that the content they introduce does not participate in the processes needed for translation to be possible. The conclusion is that in this area genuine differences in expressive power arise.

5 Implications

The last section concluded that languages do differ in expressive power, but only in a very specific area: that of expressive content. It is natural to wonder why languages should differ in this particular kind of content, and, given this difference, what we might conclude about the nature of language and its relation to other kinds of cognitive processes. I cannot say anything definitive on these questions, but in this section I will venture some speculations on possible reasons for the facts.

It seems to me that the reason that languages differ in this area is precisely because of the nature of the content involved. Expressives say something about the speaker's emotional or non-verbal attitudes in a given situation; situational expressions indicate something about the properties of the situation in which they are uttered. Both sorts of content lack truth conditions. Notice, also, that (in many cases) the content

26 This Japanese expression can also occur with an honorific.

27 A reviewer suggests translating *ohayo* as 'greetings'. But the latter expression is felicitous at any time (that greetings are appropriate); *ohayo* is felicitous in the morning or at the beginning of a workday, but not otherwise (for example, I could not use it on returning home to my family from the office). The translation thus does not successfully capture the meaning of the word.

of expressives can be conveyed in a way that does not involve the arbitrary symbols of language: we can communicate our emotional states through facial expressions or paratactic features of our utterances, or our attitudes toward the social status of others through our actions. It might be that this other means of expression contributes to the unavailability of compositional processes.

Given the above, two immediate possibilities arise for an explanation of why we might get variation in this domain. The first involves culture. Especially in the case of situational expressions, it is quite unsurprising that languages would differ; this part of language is quite plainly intimately connected to the culture of the language users, so it is natural that the expressions that culture finds a need for would be lexicalized. Of course, such an explanation has nothing to say about why we might find a difference between the situations in which it is appropriate to say *good morning* vs. the Japanese *ohayo*. The same thing might be said about honorifics, though it is not obvious why e.g. English would lack a formal/informal distinction on pronouns which is present in languages as close to it as French and German, so there are limits on how far this story can go. It also clearly does not hold for other expressives, as human emotions are not culturally dependent.

The second option involves the relation between language and thought. Suppose one accepts that any thought that involves language is propositional in nature.[28] Then, since expressives do not express propositional content (at least if one agrees with Potts and Kaplan), they are not used in thought, instead serving to modify the utterance context in this or that way. One might then conclude that language that is not used in thought does not need to be semantically invariant across languages.

Before closing the paper, I would like to briefly address two possible worries about the claims I have made here. I have claimed that expressives are not translatable in general. But this claim depends on the possible translations that one examines. Those I considered are not appropriate, but do they exhaust all the possibilities? One might view my claim as an argument from lack of imagination, rather than as anything definitive. Of course, I cannot directly counter this objection – there might be other possibilities I have not considered. In support of my conclusion I can only say that the lack of imagination is not only mine, but extends (as far as I know) to all the native speakers I have consulted. The problem seems to me to tie directly to the Pottsian ineffability of expressive content: given that it is difficult or impossible to paraphrase expressives, it follows that it will also be difficult or impossible to find a nonlexical translation for them (as we will be restricted to single words or morphemes). In the absence of corresponding lexical items, it makes sense that no translation would be available. Still, this is a theoretical argument, and empirical fact must be the final arbiter. A reviewer suggests a quantitative study of various possible translations with an eye to determining whether any possible translation is acceptable, or relatively acceptable, to native speakers. This would be interesting to carry out in the future.

A second issue concerns the procedure by which I have argued for differences in expressive power across natural languages. I have taken translatability to be diagnostic for such differences: if an expression S in language $\mathcal{L}$ carries content which cannot successfully be translated – in the sense of EE – into another language $\mathcal{L}'$, then those two languages are taken to differ in what they can express. One could call this assumption into question in various ways. The most direct route doubts that failures in translation correspond to genuine differences in expressive power. I have claimed above that in fact they do not always: translation can fail in ways that have nothing to do with what can be expressed in language, as when a bare nominal expression in a language like Chinese makes available discourse continuations which correspond to distinct and semantically different terms in languages like English. Here we already have a failure of PE. But such cases are different from the expressive cases I take as my main evidence, where what fails to translate simply has an 'ineffable' content which lacks a content-level translation. For such cases, it does seem that we have genuine cross-linguistic differences in what can be expressed.

One final issue is raised by the previous paragraph. The procedure for finding differences in expressivity depends on finding failures of translation. I have targeted expressive content as a domain which gives rise to such failures, but there are others, notably in literary translation. Many authors note that particular culturally derived effects of using certain terms do not survive the translation process (e.g. Bar-On 1993).

28 Note that this assumption leaves open the possibility that presuppositions are not just a tool for organizing discourse but also have a role in organizing thought, if thought involves language.

This is problematic in particular for genres such as poetry, which often make direct use of these sorts of associations and shades of meaning. Another sort of example can be found in religious texts, which may require particular modes of interpretation to be comprehensible, which are not necessarily available in other cultural domains (for instance, consider the seemingly contradictory language in some Buddhist texts analyzed by Garfield and Priest 2003). We may now ask whether this kind of difficulty is caused by, or creates, differences in expressive power as well. This question, unfortunately, seems impossible to answer at our current state of knowledge, in that we lack any kind of proper formal analysis of meanings arising in this way. This seems to me a promising line for future research, both from the perspective of expressivity considerations and for semantics/pragmatics more generally.

Summing up, in this paper I have shown that, although languages do not vary in expressive power in the domains of truth-conditional content or other areas (presupposition, implicature) where meaning is constructed from expressions with truth-conditional content, they do differ in expressive power in what sorts of expressive content they can express, where propositional content is not involved. Of course, the argument I have made is founded on theoretical considerations, which of necessity are bounded by our current state of knowledge. The ultimate correctness of the thesis I have advanced must be decided empirically. In particular, the rapidly changing state of the analysis of expressive content suggests that the theoretical picture itself may alter the considerations I have raised here.

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