Indeterminacy and Translatability

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I would like to thank the universe for existing and for presenting us with these great puzzles which occupy our time. Our lives would be quite meaningless if we weren't all busy searching for meaning.

I would like to thank the ILLC for providing an international and interdisciplinary setting for studying the many faceted cluster of phenomena that is generally referred to as language.

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The ultimate goal of this paper has been to widen the area of theoretical space in which one might think about the questions of natural languages and the act of translating between them. Whether this widening is a distortion of the truth or an amplification of our understanding of interlinguistic phenomena; will have to be answered at another time, or atleast, by another explorer. Finally, I would like to thank the ILLC for having given me the opportunity to make this initial exploration.

1.0 Introduction: What is Indeterminacy?

The Indeterminacy of Translation is the thesis, originally formulated by Willard V.O. Quine (1953, 1960), that translation lacks empirical controls. This means that, after considering all evidence and criteria of translation, there still exists numerous and incompatible translation functions between any given pair of languages. We will see by the end of this section that the Indeterminacy of Radical Translation produces a kind of ripple effect which extends across the theoretical space of communication in general, thus having repercussions into interpretation within a single language and even within a single idiolect. Thus the philosophical stakes of the Indeterminacy of Translation are rather high. If one can refute it, then one has nullified the ripple effect[1].

This paper will be concerned with the following questions. Is Translation Indeterminate? If so, in what sense? And what does this tell us about the Translatability of languages?

The paper will take the following form. First I will briefly introduce the notion of Indeterminacy much in the same formulation as it was given by Quine. I will then examine 2 recent arguments against Indeterminacy: the first from Jerrold Katz, the second from Dorit Bar-On. Their arguments will lead us to an examination of the current status of translation as it is practiced by actual translators. We will then review and critique the proposed criteria for the determinacy of translation. I will conclude by incorporating the findings of the above mentioned into a broader model of the Translatability of Languages. The only abbreviations I will be using are SL for source language and TL for target language. So let us now begin with a brief explication of the problem of Indeterminacy.

1.1 Quine's Jungle Story

The original drop that causes the aforementioned ripple effect comes from a thought experiment involving a special case of translation called Radical Translation. This means, any translation situation in which no prior knowledge is available to the translator, for at least one of the languages in question. This case is typified by a story Quine tells of a linguist who attempts to make a translation manual for a hitherto unknown language (that is, unknown to everyone except for the people who speak it).

This imaginary linguist comes across a new tribe living in the jungle. Our linguist sets about the task of making a translation manual between the language of the tribe and English. This manual will consist of all of the expressions of each language, paired with their respective translations in the other language. So how does one begin such a task with no prior knowledge of the language in question?

Quine's answer to this is that the linguist must begin with what Quine calls observation sentences. These occur in situations in which certain of the natives' utterances tend to co-occur with specific changes or states in the environment. These changes or states in the environment are what Quine calls the stimulus-meaning of the utterance. Once our linguist believes he has a solid inductive hypothesis, he can attempt to make the utterance himself the next time he notes the respective stimulus meaning. He can then get the assent or dissent of the natives[2]. If he gets dissent, then he must revise his hypothesis and try again. If he consistently gets assent from the natives then he has gotten his foot in the door of their language.

So lets see what happens when our linguist attempts to identify a native observation sentence.

One day the linguist is sitting outside with some natives when a rabbit darts by. One of the natives says to the other natives, 'Gavagai'. The others give their assent. Our linguist notes this and waits to test his hypothesis. A while later, another rabbit

[1] Unless of course, the ripple effect is established on other grounds.
[2] Assuming, that he can discover their methods for giving assent and dissent.

darts past. 'Gavagai' says our linguist. The natives assent. After a number of repeated trails and assents our linguist believes he has identified an observation sentence. He writes in his notebook: "'Gavagai' = 'Rabbit' or 'There goes a Rabbit'".

So far so good, but here comes the problem. How does our linguist know if 'Gavagai' actually means 'rabbit' or if it means 'collection of undetached rabbit parts' or 'series of rabbit stages', etc,. He has no means at his disposal to make such distinctions. Remember that his only evidence is what he is able to observe. He must choose arbitrarily out of a large disjunctive list of innumerable possible meanings of 'Gavagai'. No independent control exists that would enable him to eliminate all but one of the possibilities. Most likely he will simply put that "'Gavagai' = 'Rabbit'".

This will at least capture the stimulus-meaning of the utterance. But what about its ontological meaning? Well, Quine argues, this question simply does not arise. The fact is that even within the same language, say English, one person might think of 'rabbit' as ontologically meaning 'a series of rabbit images' or 'a collection of undetached rabbit parts', or any number of things. So which one is the actual meaning of the word 'rabbit'?

The question doesn't seem to make sense. Anyone can have any number of ontological commitments to the word 'rabbit'. The only thing they share in common is the stimulus- meaning.

These considerations lead Quine to conclude that the word 'rabbit' has no universal ontological meaning. The meaning of the word rabbit is nothing more or less than the stimulus meaning. Thus since 'Gavagai' and 'rabbit' have the same stimulus-meaning, they also have the same meaning.

So by using this method our linguist could eventually identify all of the native's observation sentences. But does this get his foot in the door of their language?

It seems not. The observation sentences will presumably comprise a very small portion of the language. What happens when the linguist must translate an expression, which is not an observation sentence (or a series of observation sentences)? Well, in this case he will have no access to the stimulus-meaning. He can neither formulate nor test an inductive hypothesis. In absence of such methodology our linguist will be forced to choose arbitrarily out of numerous and incompatible hypotheses.

The same argument, of course, can be made for any word or sentence in the native's tongue which isn't an observation sentence. This, in effect, is the meaning of the Indeterminacy of Radical Translation. That any Translation Manual that our linguist can devise for the native's language will suffer from the same Indeterminacy of meaning.

So where does this ripple effect come in? Well, at some point in history, this situation was true of any given language pair. Thus, the translation manual for any two languages is no different from the manual for English and Gavagai-ese. Quine states that all bilingual translators must be relying, however implicitly, on a translation manual such as this. Thus, the manner in which we currently translate between natural languages is largely based on matters of convention, or tradition, but not on matters of empirical facts[3]. In this way, the Indeterminacy of Radical Translation spills over into Non-radical Translation as well. And the same is true for interpretation within a single language. The monolinguistic interpreter is also lacking in many of the independent controls in which our jungle linguist was lacking. Some

[3] Except in the case of observation sentences, which are based on the stimulus meaning.

have argued as well that even a single individual lacks the means to objectively choose between possible interpretations of utterances made at different time points in his or her own idiolect. So this is the ripple effect: if Radical Translation is Indeterminate, then all of communication is effected by this Indeterminacy.

At this point we will move on and examine the two arguments against Indeterminacy. The arguments must propose some empirical criterion or criteria on which the practice of translation can be theoretically and pragmatically grounded.

2.0 Two Arguments against Indeterminacy

2.1 Katz's *Refutation of Indeterminacy*

Jerrold Katz, before his more recent paper, had argued not only against indeterminacy, but in favor of something he called the Exact Translation Hypothesis[4]. This principle had several formulations but basically amounted to the claim that, in theory, translation failure between any two languages never occurs. He argued that this follows from his 'Principle of Effability' which states that: 'Each proposition can be expressed by some sentence in any natural language'[5].

In the more recent 'Refutation of Indeterminacy' (Katz/1988), Katz no longer maintains the seemingly untenable notion that translation failure is a myth, but it is not clear if he is still arguing for the Exact Translation Hypothesis in limited contexts, or if he is merely arguing that there is a high degree of determinacy in these contexts. Let us, for now, assume is he arguing for the latter, less drastic, hypothesis unless we come across specific reasons to do otherwise at a later point.

Katz begins his arguments in "The Refutation of Indeterminacy" by stating that a common-sense view of translation (by this phrase, I believe he means his position), must be assumed to be correct unless proven otherwise:

> Skepticism about translation, like skepticism about other things of which common sense assures us, incurs a burden of proof in challenging a common sense point of view. (p.228)

Now unless I am grossly mistaken, it is a claim to knowledge, not the skeptical claim, which incurs the burden of proof; regardless of which view is currently considered 'common-sensical' by the society in question. If Katz does wish to place the burden of proof on the skeptic, then this would fit the exact definition of 'begging the question'. But let us leave this anomaly aside for now, as his other arguments may have force of their own.

Katz first argues for a distinction between radical and actual translation situations He states:

> I concede that there is no doubt about Quine's conclusion if restricted to *radical translation*. But it is not clear how *actual translation*, to which Quine's thesis must apply if indeterminacy is to matter philosophically, is related to radical translation. (p. 232)

Thus we have the limited context in which Katz is attacking indeterminacy. His argument will depend on making a clear-cut distinction between radical situations typified by the Jungle Story in **1.1**, and what Katz dubs actual situations such as say, translating a weather report from Canadian English into Quebecois.

Katz attempts to do this by arguing that certain independent controls exist in cases of actual translation that do not exist in radical translation. In order to secure

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[4] See Katz, 1978

[5] Katz attributes Effability back to Searle and Frege. Katz no longer maintains the Principle of Effability in his 'Refutation of Indeterminacy'.

these independent controls, Katz argues for the notion of linguistically neutral meanings. In order to do this he must attack Quine’s argument that there are no such things as linguistically neutral meanings.

His attack begins from one assumption:

> [Quine's argument]…establishes no more than the unknowability of meanings. But meanings, like Kant's noumena, could exist even if unknowable. (p. 234)

By ’meanings’ Katz means linguistically neutral meanings, or propositions.

There are three things to consider here. The first is that the rest of Katz’s argument for linguistically neutral meanings will be dependent on this assumption.

The second is that Katz has accepted Quine’s conclusion of the unknowability of meanings.

The third is about the specification of the term 'unknowable'. I think Katz means to say unknowable to Quine's radical translator, but perhaps knowable to an actual translator. If this is so, then Katz is already assuming a clear-cut distinction between radical and actual translation, the very thing which he will use the notion of linguistically neutral meanings to secure. But if he uses this distinction to argue for linguistically neutral meanings, and at the same time uses linguistically neutral meanings to argue for the distinction between radical and actual translation; then his argument suffers from circularity.

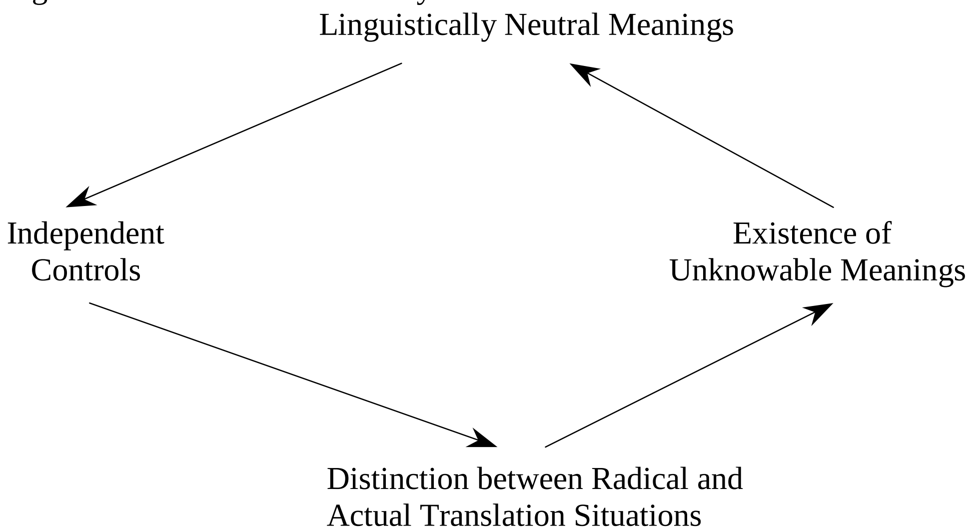

Figure 1. If Katz means that the meanings are Unknowable to a Radical Translator but perhaps knowable to an Actual Translator.

So let us assume that Katz does not mean this, but rather simply Unknowable. If this is the case then it is difficult to see how his claim can work. Modern definitions of meaning rely on Tarski-style Truth Conditions. But this will not suffice for linguistically independent meaning because the right hand side of the bi-conditional can be in a different language. The specification of which requires something more, such as semantic properties or the intuitions of native speakers (the former being dependent on the latter for specification). In all cases, meaning in this sense must be defined as some kind of intersubjective mental entity. In which case we must ask: In what way does an unknowable intersubjective mental entity exist? Katz gives us a metaphor with Kant's noumena. This puts him in a position of linguistic platonism. Kant's noumena only existed in some kind of abstract platonic sense, the relevance of which is generally precluded by contemporary philosophical tools such as pragmatic methodology, and the verification criterion. What this amounts to is, if meanings are unknowable, then it seems that they cannot be said to exist in any significant way.

Linguistic Platonism

↓

Existence of Unknowable Meanings

↓

Linguistically Neutral Meanings

↓

Independent Controls

↓

Distinction between Radical
And Actual Translation

Figure 2. If Katz means that the meanings are simply Unknowable

However, for the sake of interest and the possibility of my being mistaken, let us assume that Katz has something different in mind, which he failed to make explicit and which could include the possibility of linguistically neutral meanings being unknowable and yet existing in some significant way. In short, let us continue to follow Katz's argument.

His second argument for linguistically neutral meanings states that Quine's criticism of linguistically neutral meanings fails to encompass both Bloomenfieldian and Chomskian linguistics. Further, that in light of Chomsky's theory of linguistics, Quine's arguments do not have force (we will see in section **3.1** that Chomsky himself explicitly denies this). These considerations of linguistic paradigmatics lead Katz to conclude that Quine's argument does not present a significant challenge to the 'common-sense' view of meaning, and since, according to Katz, the burden of proof must lie with Quine, it is safe to go ahead and assume the 'common-sense view' (which means Katz's view).

But leaving this aside let us move on to the point where Katz gives his criteria for the independent controls which will mark his distinction between radical and actual translation:

> The criteria of correctness in translation will be the customary blend of data and methodological considerations…The data come from the overtly expressed judgements of speakers reflecting their knowledge of the language. In radical translation the data are restricted to judgments about the reference of expressions. But, on our working assumption, the data in actual translation include judgements about the senses of expressions, too. (p. 246)

He further specifies that, in actual translation, the native speakers can be asked specific questions regarding the senses of their expressions by employing the methodology of decompositional semantics[6], such as: is sentence X meaningful, ambiguous, or analytic, are sentences X and Y contradictory or synonymous? Thus we can ask the natives about their expressions in terms of synonymy, ambiguity, etc,. The answers to these questions are the basis for Katz's independent controls, which mark his distinction between radical and actual translation.

On page 247, he argues that this same method is available in radical translation, and that it depends solely on the creation of a native bilingual. He then seems to change his mind when he says that actual translation is also dependent on native bilinguals (as opposed to merely native monolinguals).

> Actual translation can no more proceed without a [native] bilingual than grammar construction can proceed without a native speaker. (p. 248)

So at this point Katz's seems to abandon the distinction between radical and actual translation, which was the basis of his entire argument. Originally he was to show that actual translation was immune to indeterminacy because of the existence of some independent scientific controls. The basis of these controls was to be the existence of linguistically neutral meanings. He conceded that these are unknowable but still maintained their existence. We have seen (p. 8, last paragraph) that this places him into circularity if he maintains that meanings are knowable in actual translation.

Later we saw that he does maintain this when he fell back on the intuitions of native bilinguals as the basis for linguistically neutral meanings. He then denies his original distinction when he posits the possibility of creating native bilinguals between radically opposed speech communities (in effect, suggesting that Quine's linguist should mate with a native and base the translation manual on the child's intuitions).

> If there were no native bilinguals… we know a sure-fire method for creating them on demand. [It] takes a rather long time and … involves various practical, social, and moral problems, but it works, (p. 249)

So we have identified what criteria Katz proposes for translation determinacy. It appears that this is what Katz's 'Refutation of Indeterminacy' boils down to: we just ask the native bilinguals for their intuitions and the tools of decompositional semantics do the rest. So we will simply note here that Katz's translation criteria are Native Bilinguals and Decompositional Semantics. We shall return to these issues in section **4**.

One further note here is that even if we were to allow Katz all that we have allowed him, and even if we were to assume that these criteria settle the issue of indeterminacy (which we won't), the picture he paints still does not extinguish indeterminacy.

There can be no creating native bilinguals for languages such as Ancient Chinese, Sanskrit, or other dead tongues. Even the current children of Zion, who have resurrected Hebrew as a spoken language, may not be said to be native bilinguals of Biblical Hebrew, the speech community of which is too far displaced in time. Furthermore, of the 10,000 known human tongues currently on the earth, for many of them there are probably no strictly native bilinguals.

Katz's suggestions also say nothing about a non-human speech community. It is not unthinkable that we might be faced with the problem of communicating with one some day. Suppose no native bilingual can be created due to biological or mechanical factors. Suppose further that such a non-Human community spoke a kind

[6] Katz's term. Also known as Componential Semantics, and Componential Analysis.

of language that was, in principle, not susceptible to human mastery. Suppose they communicated by alternating the frequency of a beam of microwave radiation, which they transmit and receive via some special organs. The Philosophy of Language should have something say about such extreme situations (since this too, is a language), regardless of their apparent unlikelihood.

2.2 Bar-On's arguments against Indeterminacy

Five years after Katz's paper entitled 'The Refutation of Indeterminacy', Dorit Bar-On published a paper called 'Indeterminacy of Translation-- Theory and Practice' (Bar-On/1993). The paper also attempts to make a clear distinction between radical and actual translation and argues that actual translation is not affected by Quine's arguments. Bar-On however, unlike Katz, specifically states that she is not arguing for the Exact Translation Hypothesis (the hypothesis that Exact Translations are always possible between any two languages), and actually argues against it. In spite of this we will see that she argues against the Indeterminacy of translation. We will also see that Bar-On, like Katz, ends up falling back on the intuition of native bilinguals as the basis of her empirical controls.

Bar-On begins her arguments by claiming contrast between the notion of Indeterminacy and the practice of actual translation:

> To an ordinary translator, the idea that there are too many perfect translation schemes between any two languages would come as a great surprise. Yet a venerable-though much debated-philosophical thesis expresses just this idea. It is the thesis of the indeterminacy of translation…(p.781)

We notice the odd use of the word 'perfect'. Indeterminacy actually states that there is no such thing as a 'perfect' translation scheme.

Bar-On continues:

> If the indeterminacy thesis is right, then our pretheoretic understanding of ordinary translation practice reflects a serious misconception. Given how prevalent and persistent this misconception is, a proponent of the thesis ought to either account for it, or tell us how to replace it. I will argue that this burden cannot be satisfactorily assumed by the champion of indeterminacy. (p.781)

Here we find the same theme as in Katz's paper. That Indeterminacy theorist must somehow account for the fact that translators exist and that people are able to communicate between language barriers via the practice of translation. However, Bar-On, unlike Katz, is prepared to give an explanation of her term 'pretheoretical understanding'. She bases her notion on the normative judgements which actual translators use in evaluating translations. She further says that:

> Those judgements, I believe, reveal of pretheoretical commitment to the objectivity of linguistic facts. (p.781)

I must say that I prefer Bar-On's term 'pretheoretical understanding' to Katz's 'common-sense view', the former having a pretense of philosophical relevance. However the fact remains that both authors use this notion as if it were a widely accepted and undeniable fact which indeterminacy theorists have neglected to (and henceforth must) account for. Their basis for this position seems to be that actual real-life translators have been practicing their art (or science) for millennia in a determinate and concrete way, and that to assume indeterminacy is to deny this fact.

I would like to say two things at this point regarding this issue. First, that I do not think that there is anything contradictory between the indeterminacy thesis and the fact that translators can facilitate communication between parties who do not speak the same language. The only stipulation that indeterminacy makes is that the methodology of such an exchange is not empirically decidable. Indeterminacy theory does not maintain that cross-linguistic communication is impossible.

The second point is that the 'Common-sense view' or the 'Pretheoretical understanding' which Katz and Bar-on attribute to actual translation, is not such a widely held view among actual translators. We will see in section **3**, when we look at what *actual* translators have to say about translation, that the idea that translation is grounded in objective methodology is quite far from being a popular view.

Bar-On continues her explication of pretheoretical understanding by examining some examples of difficulty in translation. Most of the examples are common to translation literature and many are quite interesting. I will mention a few of them here:

In Burushaski, a language with no known relatives which is spoken in a remote area of Pakistan, they have two words which mark gender distinction among siblings (as does English, 'sister' and 'brother'). However in Burushaski 'a-cho' means 'sibling of the same gender as the speaker', and 'a-yas' means 'sibling of the opposite gender as the speaker'. Thus a Burushaski text in which the gender of the speaker has purposefully not been mentioned until the end, at which point the reader discovers that the speaker and her 'a-cho' are both female: would not be readily translatable into languages which would force a gender specification. In English one could say sibling, but this would most likely tip off the reader to the surprise at the end. (See Catford/1965).

Figure 3. Comparison of terms marking gender distinction in

siblings for English and Burushaski.

	Brother	Sister
A-cho	Speaker: Male Sibling: Male	Speaker: Female Sibling: Female
A-yas	Speaker: Female Sibling: Male	Speaker: Male Sibling: Female

In the color vocabulary of Navajo, the most important remaining native-american tongue in the U.S., they have only one word, 'Dootlizh', meaning purple, and/or green, and/or blue[7]. Now suppose a Navajo says that he wants to paint his house 'dootlizh'. This could be translated into English as 'I want to paint my house purple or blue or green', but this has an element of indecision or apathy not present in the Navajo.

[7] I mean that there are no words in Navajo for 'blue' 'green' or 'purple' in particular. Only the word 'Dootlizh' for all 3.

In the aboriginal tongues of Australia it is said that they have numbers only for one, two, few, and many. In Bushman, spoken by tribes in the Kalahari Desert in southern Africa, there is no word (nor concept) for 'guilty'.

Other examples come from languages with highly specialized words, which are not readily translatable without going in to lengthy descriptions of the source culture. Some examples are: in Malagasy (a Malayo-Polynesian tongue), the word Kabary refers to a certain kind of formal speech given during a ceremony on particular religious occasions. In Hebrew there are a large number of such religious terms in common use. In Chipaya, a tribal tongue in Bolivia, the word Projector is 'the-thing-that-shows-pictures-on-the-wall'. (See Keenan in (Guenthner and Guenthner-Reutter/1978), also (Bar-On/1993).

These examples, among others, lead Bar-On to dismiss the Exact Translation Hypothesis, which says that all languages are perfectly intertranslatable. She then gives her definition of 'Translation Meaning', which she identifies as a notion of meaning that is well suited to the practice of translation:

> The *translation-meaning* of a linguistic item is the set of features which would be associated with it by SL users, and which are relevant to its translation in a given context.(p. 786)

By linguistic item she means word, expression, sentence, or discourse. By features she means, I believe/assume, not only semantic features but also other components that might be relevant depending on the context, such as: level of formality, dialect, sociolect, illocutionary force, etc. She neglects to say how translation meaning differs from ordinary meaning, and since she does not give a definition of meaning in general, one cannot deduce their intended relation. Nor does she offer justification as to why translation should have a separate notion of meaning, except that, in many circumstances, ordinary meaning cannot or need not be preserved.

Building on this notion she defines four more: (in the following, p and q are TL sentences, ss is an SL sentence, tr-meaning is translation-meaning, and the '--' I think means 'i.e.')

> i) p is and EXACT TRANSLATION of ss iff p achieves *maximal preservation* of ss's tr-meaning--p share[s] with ss all relevant linguistic features.
>
> ii) p is the BEST AVAILABLE translation of ss iff p achieves optimal preservation of ss's tr-meaning--it shares with ss more relevant features than any other candidate.
>
> iii) p is an EQUALLY GOOD translation of ss as q iff p and q preserve ss's tr-meaning to the same degree--each shares with ss the same number of relevant features.
>
> iv) P is a BETTER translation than q iff p preserves more of ss's tr-meaning than q--p shares more relevant features with ss than q. (p. 794)

Bar-On admits that these definitions are still too vague to be usable and that further specifications would have to be made (such as a system of feature weighing).

We first notice that a definition of ii) is unnecessary, as it follows from iii) and iv). We further note that i) does not account for the problem of p having too many features with respect to ss. For example, in the English 'I've arrived', in order to translate this into Russian one would have to specify the gender of the speaker and the mode of transportation. Thus the Russian 'Я ПРИЕХАЛА' shares with 'I've arrived': 1st person, past tense, arrive; but it adds that the speaker is female and that she arrived by vehicle. (For further discussion see Catford/1965).

We further note that these definitions pose no counter-argument to indeterminacy. What would pose a counter-argument would be a scientifically objective manner in which to attribute values to the features upon which the definitions are based. At this point Bar-On maintains that the methodology in question is based on 'objective facts' and that we realize the extremity of Quine's thesis when we see that it contradicts the idea that these facts exist. These facts will turn out later to be the intuitions of native speakers. For now we continue on to her argument against indeterminacy.

Her direct attack on indeterminacy takes a disjunctive form. Her first assumption seems undeniable and it involves the Quinean idea of the implicit translation manual. We remember that, according to Quine, all translators rely (however unconsciously) on a Tarski-type manual which is a gigantic conjunction of all SL and TL expressions bi-conditionally joined to their respective equivalents (for the SL these are TL equivalents, and vice-versa). Indeterminacy states that the production methodology for such a manual lacks objective status.

Bar-On's first claim is that the manual must be either determinable or undeterminable. Her second claim is that both disjuncts end in a refutation of indeterminacy:

> Either it is maintained that we could in principle determine what set of analytical hypothesis a given translator is operating [with] *or* it is maintained that we could not. The dilemma facing the proponent of indeterminacy is this: on the first horn, the indeterminacy thesis itself would stand refuted, whereas on the second, the alleged explanation offered by the relativist construal would be lost. (p. 801-802)

Regarding the first possibility, that the manual is knowable, Bar-On states that in this case we could know what manual the native uses for his/her own language. We could then use that manual to build our bilingual manual. In which case, of course, there would be no indeterminacy.

There are two possibilities as to what Bar-On might mean by 'knowing the manual of the native'.

She means either a) that the manual is monolingual version of the manual Quine describes, or b) that the manual contains more information than the manual Quine describes.

If a) is the case then the manual would certainly be knowable but trivial. A manual that consists of sentences such as: "X' is true iff X' would not clear up the indeterminacy.

I believe that Bar-On means b), that the manual would consist of more informative sentences, such as: "X' is true iff Y', where Y would contain some information distinct from observable stimulus-meanings. If this kind of manual were knowable, which very few would maintain, then there would be no indeterminacy. We simply note here that this kind of manual is different from the manual in Quine's argument and that no indeterminist (and very few determinists) would concede the knowability of such a manual.

Which brings us to disjunct 2 of Bar-On's argument, which states that the manual is unknowable.

> Suppose, then, that we could not (in principle) determine which manual a given translator in fact uses. Then, by Quinean reasoning, we should conclude that there is no fact of the matter here. (p. 803)

I will not dispute this point. She continues:

> But if this is so, then… the proponent of Quinean indeterminacy must abandon the relativist idea that ordinary translators tacitly hold some (arbitrarily chosen) manual fixed and misguidedly take it to provide an objective analysis of the source and target languages. However, this idea was central to the relativist attempt to account for the normative aspects of ordinary bilingual translation and to correct (and replace) our pretheoretic conception of translation. (p. 803)

So this is what it comes to, if the manual is unknowable, then the Quinean should say that it doesn’t exist. And if it doesn’t exist, then the Quinean cannot say that translators rely on such things. And if that’s true then there’s nothing to be indeterminate about!

But the manual was the hypothetical construct, which represented the product of the bilingual’s intuitions. In short, it was the source of translation determinacy. If the manuals were decidable via some empirically objective method, then translation is not indeterminate. If the manuals lack this objective methodology, then so must translation. So if there are no such things as these implicit manuals, then how is translation possible much less determinate? On what does Bar-On base her translation determinacy if not on the bilinguals’ intuitive manual?

She returns to this on pages 807 thru 809 when she identifies nothing other than the intuition of native speakers as the basis for translation objectivity. Thus, her argument begins and ends much in the same way as Katz’s. Indeterminacy does not affect actual translation practice because of the existence of what Katz calls (following Quine) ’independent controls’, and what Bar-On calls ’objective facts’.

I would like to mention one more argument that Bar-On makes against linguistic skepticism in general, and why, according to her; translation skepticism must necessarily fail. She explains that skepticism in general has a specific pattern:

> Typically, anti-objectivists tell us that the facts in a given domain are not as they appear to us. They often attempt to construe the apparent facts, which they regard as problematic, in terms of other, allegedly less problematic facts. (p. 804)

She further specifies that external world skepticism works because it construes physical facts in terms of mental facts. And that emotivism works because it construes objective moral facts, in terms of likes and dislikes, i.e. subjective facts.

But translation skepticism cannot work because it attempts to construe linguistic facts in terms of linguistic facts. One cannot explain away a set of facts using facts from that very same set!

If this were true it would be the death-knoll not only of Quinean indeterminacy, but also of linguistic skepticism in general.

As it turns out however, for those who haven’t noticed already, this argument relies on a play on words. I will explain.

We could describe the external world skeptic as attempting to construe metaphysical facts in terms of metaphysical facts. Or we could describe the emotivist as attempting to construe ethical facts in terms of ethical facts.

Or, flipping over the third coin, we could describe the indeterminist as construing facts about linguistically independent meanings and/or propositions in terms of facts about stimulus-meanings and/or conventions.

Physical and mental facts are both metaphysical facts, moral and subjective facts are both ethical facts, and propositional and stimulus-meaning facts are both linguistic facts. So there you have it; we bring the missing words out from their hiding places and the argument dissolves.

Figure 4. Fact Distinctions related to

Bar-On’s Argument vs Linguistic Skepticism

Metaphysical Facts

Ethical Facts	
Moral Facts	Subjective Facts

Physical Facts	Mental Facts

Linguistic Facts	
Propositional Facts	Facts about Stimulus-meanings/ Conventions

2.3 Conclusion

We can finish here by noting that both Bar-On and Katz identify the intuitions of native bilinguals (For Katz, Decompositional Semantics as well) as their proposed criteria for translation Determinacy. We will return to these issues in section **4.**

In the next section (**3)** we will examine some of the things that *actual* translators have to say about *actual* translation. We will find that what they have to say does not support Katz’s ’common-sense view’ nor Bar-On’s ’pretheoretical understanding’. And thus, that arguments that Indeterminacy is inconsistent with the translators’ notion of translation are not available to would be indeterminacy refuters.

3.0 Translation According to Translators.

My sources for this section are varied. The bulk of them are recent texts reviewing and critiquing the history of translation theories as offered by translators. I will also include remarks about a textbook written for translation students. We will find that none of these offers a view of translation that is incompatible with the indeterminacy hypothesis, that many of them reject the idea that translation is empirically decidable, and that one of them explicitly adopts the view that translation criteria are largely based on conventions. The findings of this section will be consolidated into the section **4** where I will review and critique the proposed translation criteria.

3.1 In the first text, *Translation and Language: Translation Theories Explained* (Fawcett, 1997), the author attempts to reconcile what he terms the love-hate relationship between translation and linguistics:

> Many linguists have no interest in translation theory, and some translation theorists are increasingly declaring that linguistics has nothing to offer their discipline. (Foreword)

Bar-On took for granted that it was widely held that translation practice was rooted in the ’objectivity of linguistic facts’. Katz contends that the Quinean must somehow account for the ’common-sense view’ of translation, which he says, in light of Chomskian linguistics, is rooted in methodological objectivity. However, as Fawcett notes, Chomsky himself clearly states in *Aspects of the Theory of Syntax,* that his theory:

> Does not, for example, imply that there must be some reasonable procedure for translating between languages. (Chomsky 1965:p. 30)

Fawcett further states, regarding linguistic approaches to translation, that:

> To many translators and translation theorists the findings seemed sterile, leaving out many things of interest to translation. (p. 3)

This is because linguistics is based on what Saussure (1916) called the Langue, or the abstract representation of a language, as opposed to the Parole, or the actual language as it is used by the individuals of the speech community. Linguistics was based on the study of Langue because the Parole was thought to be composed of factors that were too numerous and too random to facilitate systematic analysis. Translation, of course, must function across two paroles. Regarding this issue Fawcett says that:

> The view that translation must be studied as parole… rather than langue… is now widely accepted, to the extent that an author like Pergnier (1993:223) can refer to it as a 'fact', and an important fact, since, as he says, it is because translation is a fact of parole that there is no such thing as the one 'right' translation of a message. (p. 4)

Now it seems that Katz's 'common sense view' of translation is actually a quite uncommon view among actual translators. But there's more: at the end of the chapter on translation techniques, Fawcett says the following regarding one of the criticisms:

> This criticism would be important if one wanted to claim that translation is a science, a piece of hubris that few would now be guilty of. (p. 51)

Regarding the concept of translation equivalence, Fawcett says:

> Getting two different translators… to come up with exactly the same solution… is clearly such an impossible task that the concept seems dubious, especially when presented as a quasi-mathematical notion, as it sometimes has been. (p. 53)

Later, he quotes Kelly (1979:p. 24) who says:

> What does the linguist have to offer the translator? The most obvious is the analysis of equivalence, and some objective justification of the translator's intuitions. (p. 54)

As we recall, Katz and Bar-On both used the intuitions of bilinguals as the basis for their objective methodology in translation. These same intuitions, according to at least one translation theorist, would be in need of objective justification themselves.

3.2 Moving right along, Susan Bassnett-McGuire (1991), who has published several books on translating texts and on the history of translation theory, has the following to say:

> The purpose of translation theory, then, is to reach an understanding of the processes undertaken in the act of translation and, not, as is so commonly misunderstood, to provide a set of norms for effecting the perfect translation. (p. 37)
>
> ...any debate about the existence of a science of translation is out of date. (p. 37)

Regarding the conglomerated field of inquiry she calls Translation Studies, she says that:

> …nowhere is there a theory which pretends to be normative. (p. 37)

Both Fawcett and Bassnett-McGuire give many examples of formulations of techniques and guidelines for translating texts. Concepts such as: not word for word, but sense for sense, calquing[8], adaptation[9], the MiniMax principle, situational criteria, etc. But both are very clear that these are merely tools for translation, not a prescription of normative method.

3.3 The Danish scholar V. N. Pedersen takes an even less objectivist tone in his *Essays on Translation* (Pedersen 1988). In the first essay he echoes the above in saying that perfect Equivalence is an illusion. Regarding what can be said of translation objectivity he states:

[8] Translating at the level of the morpheme.
[9] Borrowing a word in a modified form.

> The best one can hope for is the creation of a generally applicable, fairly detailed 'flow chart' for the analytic process, to ensure that no important features are forgotten in the analysis that must precede translation. (p. 29)

This is precisely the methodology with which research in machine translation has met with success (Hutchins & Somers/1992).

He argues that translation equivalence between particular languages is based on what he calls Translation Stock (he attributes the term to C. Rabin). He defines it first as:

> The product of frequent translations between two languages, which tend to confirm certain correspondences, at the lexical as well as the structural level. (p. 28)

And later as:

> The establishment [in TL] of certain words, phrases, and indeed even structures, as recognized equivalents for SL phenomena. (p. 45)

We note that these definitions are consistent, and we can thus safely view one as an elaboration of the other.

He says that such a process can result in a special translation dialect, which some Translationists have called 'translationese'. The characteristics of which are a kind of TL with notable structural or lexical components from the SL (the King James Bible is a good example). Pedersen cites several translation theorists, dating back 200 years, who argue that such translations are preferable to translations that appear as standard native TL, because the former are truer to the original, and that the TL audience, once accustomed to the translation dialect, would have a better understanding of the original. Indeed, in the first experiments in Machine Translation, US agents actually came to prefer the English mangled with Russian syntax and pragmatics over complete translations into English. (Hutchins & Somers/1992)

Pedersen later argues that this process, in many cases, inevitably leads to TL absorbing SL's translation stock. An interesting claim, but we must leave it aside for now.

We note here that Pedersen's criteria for translation are centered on the concept of translation stock. We will return to this later.

3.4 I will make quick mention of one other text. It is appropriately entitled *A Textbook of Translation* (Newmark, 1988). It is a large and thorough book intended for teaching students of translation and as a handy reference work for translators. I find it a bit odd in that nearly all of the examples come exclusively from English, French, and German (a few from Italian). I simply wish to note a few items here. The first is that on page 185 he states that 'translation (and translating) is not and never will be a science". The second is that it contains chapters on componential analysis and Syntactic Analysis. He explains the basic concepts and states that they can be useful. Nowhere does he speak of the objectivity of linguistic facts.

3.5 Conclusions

So we have seen that Katz's common-sense view and Bar-On's pretheoretical understanding, which they attribute to the practice of translation, are not at all popular views among translators. It even appears from the above that Indeterminacy might be more likely to be the 'common-sense view', if such a term had any place in a matter of philosophical investigation. (After all, didn't the church use such arguments to try and force a heavier burden of proof on Copernicus and Galileo?). In short, it is evident that Katz and Bar-On have no business appealing to such things as a means of putting theoretical pressure on the indeterminist. If there is some kind of objective methodology available to translation then it is up to the Determinist to find it.

Which brings us to the topic of the next section:

4.0 Proposed Criteria for Empirical Objectivity in Translation.

In this section we will review the proposed criteria for objectivity in translation which I have organized into six groupings: Native Bilinguals, Decompositional Semantics, Syntactic Analysis, Situation-Goal Criteria, Agreement Maximalization, and Translation Stock. We remember that in order to disprove Indeterminacy; all that is needed is to show that there exists an objective methodology for translating between natural languages. Thus, in this section, we are actually surveying proposed counter-examples to Indeterminacy.

In section **5**, I will offer a critique of the above in which I will attempt to analyze the interrelations and interdependencies among the proposed criteria, and examine to what extent they can be said to be objective.

4.1 Native Bilinguals.

We have seen above that both Katz and Bar-On identified the intuitions of individuals with native capacity in more than one language as the basis for objectivity in translation. Katz offers the metaphor that native bilinguals play the same role in translation as devices of measurement play in physics. Indeed it can be said that in an ideal world, all of our interlinguistic knowledge would be derived from the testimony of the native bilingual. In short, the intuition of the native bilingual is generally considered by the theorist and practitioner of translation alike as the ultimate authority on matters of interlinguistic exchange.

I will attempt to explicify the latent arguments that drive our collective intuition that the native bilingual should have the first priority on passing judgements regarding interlinguistic communication.

We begin with the basic problem of interlinguistic communication itself, which, of course, is a special situation of communication in general. I will give a description of communication in its most basic form[10], and from this we can add the necessary factors which will bring us to the problem of interlinguistic communication.

The most basic form of communication is as follows. There are 2 individuals, call them A and B. A has, for lack of a better term, some kind of mental state which he wishes B to suspect that he has. This mental state could be an awareness of some external or internal phenomenon, a desire, belief, or intention regarding such phenomena. The phenomenon could be A or B, parts of A or B, both A and B, something else, or everything in general. (This is to say, any unit of experience).

From this point we have two main possibilities: either B comes to suspect A's mental state or B does not suspect A's mental state.

Within the first possibility we have 2 sub-possibilities: either A was able to accomplish this because both A and B are skilled in the use of a system of arbitrary signals, the purpose of which is to enable individuals such as A and B to accomplish such things (i.e. a language), or A was able to do so without the use of such a system. In the first case of the first sub-possibility, we can assume that either:

1) A and B have become skilled in the use of such a system gradually since the time of their birth. (They are both native speakers). Or
2) A or B or both is/are natively skilled in a different system (another language), but must (or chooses to) use the secondary system (the non-native language) for some practical or non-practical reason(s). (One or both is/are a non-native speaker).

[10] See Appendix 1 for full outline.

It is generally understood that the likelihood of B suspecting that A has a mental state which is different in some degree from the mental state that A wished B to suspect, is greater in situation 2 than in 1.

Regarding the second sub-possibility, that B came to suspect A's mental state without the use of a language, we can say that: either B already suspected A's mental state without any effort on A's part, or A used some technique other than language to induce suspicion in B.

The first of the second sub-possibilities is not very interesting. Perhaps A asks B for a cigarette every day at the same time, or perhaps B had the same mental state as A and B suspected that the cause of his mental state had caused the same mental state in A, or perhaps B suspecting a mental state of A for no reason at all and by chance B was correct. Regarding the second of the second sub-possibilities: either A used some arbitrary symbol generally considered as distinct from the language, such as: gestures, pantomime, facial expression, drawings, noises, violence, affection, etc., or A and B have some kind of non-linguistic skill that enables the induction of suspicions. However, the existence of such a skill as this (telepathy for instance), is currently a matter of speculation or science-fiction. Thus we can say no more about it, but merely note that it occupies this area of theoretical space.

This brings us to the second of the original 2 possibilities, viz., that B does not come to suspect A's mental state. First we note that there are 3 sub-possibilities, either: B is not aware that A wishes him to suspect a mental state, or B is aware but does not come to suspect any mental states of A, or B is aware but comes to suspect the wrong mental state of A.

The first sub-possibility is not so interesting. It could be that A and B have no means of which to make one another aware of such things (such as, A and B are both jellyfish, or A and B are many kilometers apart with no telephones or other such devices, or B is unconscious, etc.). Or, perhaps they do have such means but choose not to use them for whatever reason.

The second sub-possibility, that B is aware that A wishes him to suspect A's mental states, but does not come to suspect any particular mental state, admits to many situations. Perhaps B is ignoring A, or a loud noise disrupted A's signals, or A is being ambiguous, or A has recently been given novocaine by a dentist, etc. The situation we want to focus on here is the one in which A is not skilled in the same system of signals as B. Thus that B can recognize A's signals as language, but cannot make sense of them.

The third sub-possibility admits to similar interest as the second. In any of the situations of the second sub-possibility it could be that B attempts to guess A's mental state but fails. But here it can be added that perhaps A and B are both native speakers of the same tongue but for whatever reason have experienced a miscommunication.

It is been one of the main goals of human civilization to create new ways to eliminate the number of situations in which A and B fail to communicate. For many of these situations some kind of invention has facilitated the communication, such as telephones, telegraphs, radios, television, the internet etc,. For other situations it has been the creation of a new system of signals such as: writing, Braille, sign languages, smoke signals, flag codes, Morse code, and pidgin tongues.

A Pidgin tongue may be regarded as the first solution to the situation in which A and B do not speak the same language. The solution is for A and B to create a simplified mixture of their respective languages exclusively for the purpose of interlinguistic communication. In some cases these Pigeon languages have come to have native speakers of their own, in which case they are called Creoles and generally expand their efficiency to that of a standard language. Examples of Creoles are: Gala, Police Motu, Papiamento, Caribean French Creole, etc,. Indeed, it is not inaccurate to describe modern English as a kind of Creole between Old Anglo-Saxon, Latin, Old Norse, and Middle French.

But the use of Pidgin tongues to facilitate inter-linguistic communication is not a very efficient tool. Each speaker that wishes to communicate with the other language group must learn the new Pidgin language. Furthermore, even if one did learn the Pidgin, one could only communicate with a member of the other speech community who had also learned the Pidgin. Thus a more powerful tool would be needed if all members of both speech communities were to be able to communicate.

This more powerful tool is translation. It involves a member of one speech community learning the language of the other speech community. Once such a bilingual individual exists, the signals that carry the mental states of community 1 can be converted directly into the signals of community 2. Thus, in principle, communication is possible between any two people[11]. Thus the bilingual seems to be the best tool for closing interlinguistic communication gaps.

But we remember from the model created above that the chances of B suspecting the wrong mental state of A were greater in situations where A or B (or both) were not native speakers of the language being used. Thus, the only way that interlinguistic communication could be as efficient as intralinguistic communication is if there exists a bilingual who is native in both the languages in question. For this reason the Native Bilingual is the best known tool for interlinguistic communication. Better than the non-native Bilingual, because the latter is more prone to error. And better than the Pigeon, because the Pigeon only functions across a limited number of speakers and lacks expressive power.

So we have seen first, how the problems of interlinguistic communication fit into a broader model of communication in general, second, why translation is the best known tool for resolving these problems, and third, why the native bilingual is the best known tool for translation. So now we have a clear view of the reasons why the native-bilingual is given the top priority on matters translation criteria. In the critique section we will see whether or not this creates a counter-example to Indeterminacy.

4.2 Decompositional (a.k.a. Componential) Semantics.

Decompositional Semantics (or Componential Semantics, or Componential Analysis) is cited by both Katz and Bar-On as a source of translation objectivity. The idea is that many words, and/or expressions can be broken down (or decomposed) into a more basic collection of properties, much in the same way as physical compounds can be broken down into more basic elements. The best explanation is a demonstration:

A simple example- The word 'man' breaks down into 'human + adult + male'.

A complex example- Following from the above, the word 'human' can be further decomposed into- 'thing + living + mobile + bearing live offspring + hairy + with opposable thumb + capable of walking on two legs under normal circumstances + capable of language use under normal circumstances + with 46 chromosomes'[12].

[11] Of course, this is true to some degree even with the Pidgin tongue. A pair of speakers of Pidgin, one from each community, could serve the same function as one single bilingual. But given that Pidgin tongues generally lack the expressive power of a tongue with native speakers, the bilingual can be said to be a much more powerful tool.

[12] This may seem imprecise but I have attempted to avoid strictly biological terminology such as binomial nomenclature.

One may notice that some of these components still seem to be decomposable ('living' for instance). Hairs can be split, but the application of this method to translation only requires such detail in cases where the texts are of a highly technical nature.

Let us apply our first example to translation. If we know that 'man' = 'human + adult + male', then we know that the translation of the word 'man' into any given TL, will be the word in TL that breaks down into 'human + adult + male'. Thus we get 'homme' in French, 'man' in Dutch, 'hombre' in Spanish, 'otoko' in Japanese, etc.

Katz suggests that by using this technique we can ask the natives certain questions that should clear up any indeterminacy. By doing this we could find out which components a native expression breaks down into[13]. Bar-On, as we recall, gives her definition of translation meaning partially in terms of such properties. A more in depth version of an explication of translation via semantic properties can be found in J.C. Catfords' *A Linguistic Theory of Translation* (Catford, 1965).

4.3 Syntactic Analysis

Syntactic Analysis serves the same function as Componential Analysis, but whereas Componential Analysis functions on the Semantic level, Syntactic Analysis functions at the next highest level. It is basically a systematic way of describing the phenomena that different languages structure their sentences differently.

A simple example- Take the phrase 'a short life'. This can be analyzed as 'a (indefinite article) + short (modifier) + life (noun)'.

A more complex example- 'A short life is a life that is too full', becomes: 'A (I-article) + short (modifier) + life (noun) + is (verb) + a (I-art.) + life (noun) + that (clause marker) + is (verb) + too (modifier) + full (modifier)[14].

To apply our first example to translation we plug in the semantic counterparts of the TL and modify the order according to the surface structure of the TL. Thus, in Dutch, which has the same surface structure as English in this case (article + mod + noun), the translation would be 'een (in-art) + kort (mod) + leven (noun)' = een kort leven.

However, in Spanish, whose surface structure in this case is (art + noun + mod), we get 'una (art) + vida (noun) + corta (mod)' = una vida corta. In Russian, which has no articles, we get 'КОРОТКАЯ(mod) + ЖИЗНЬ(noun)' = КОРОТКАЯ ЖИЗНЬ'.

For the more complex example we have the following:

> Spanish- 'art + noun + mod + verb + art + noun + cl.marker + verb + mod + mod'.
> Dutch- 'art + mod + noun + verb + art + noun + cl.marker + mod + mod + verb'.
> Spanish- 'una vida corta es una vida que es demasiado llena.'
> Dutch- 'een kort leven is een leven dat te vol is.'

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[13] Katz, following Chomsky, contends that certain linguistic units and structures are universal and innate to the human mind (or brain). And that since all natural languages are abstractions of these basic units and structures, then there exists certain interlinguistic constants between them, such as, for Katz, linguistically neutral meanings. I mention this view now because a detailed discussion of it would be outside the scope of this paper.

[14] This is quite oversimplified, but it is sufficient for the purposes of this paper.

In addition to word ordering, Transformational Grammar gives further specifications such as: verb conjugations, noun declinations, word agreement, etc. I have left these implicit in the above.

This technique was not given so much importance as Componential analysis by Katz or Bar-On. I have included it here because it has the same standing as Componential analysis according to the practical sources that we have reviewed. I am including the next section for the same reasons.

4.4 Situation-Goal Criteria.

This is a generic name, which I have designated here to refer to linguistic considerations, which function at the pragmatic level. Thus we have, considerations of illocutionary force, and socio-cultural considerations. The distinction is not finely drawn. And the field itself has yet to come to such a formalized level as the previous two. It will suffice here to give some examples of how such considerations play a role in translation.

In English, when identifying oneself on the telephone, we use the phrase 'This is Jane'. But translating this into Dutch as 'Dit is Jane', or into Spanish as 'Esto es Jane' is generally regarding as incorrect. This is because the act of identifying oneself via telephone has a different convention in these tongues. In Dutch one would say 'Met Jane' (with Jane) and in Spanish 'Soy Jane' (I am Jane).

When answering the telephone in English one says 'Hello'. In Japan one says 'Moshi Moshi', which, unlike hello, serves no other function in the language.

To politely request a cigarette in English we say 'Can I have a cigarette?'. In Dutch it is 'Mag ik een sigaret?' (may I (have) a cigarette?), and in Spanish 'Me das un cigarro?' (Do you give me a cigarette?).

In Tibet there are no equivalents to the Indo-European phenomena of saying trivial phrases upon seeing someone such as: 'Hello, How's it going?'. If one wanted to 'greet' someone or open a conversation in Tibetan, the typical thing to ask is the equivalent of 'Where are you going?'. These examples illustrate that translation, at the highest level, must take into account how members of the target community achieve the goal in question in the situation in question.

4.5 Agreement Maximalization.

The title of this section refers to Donald Davidson's solution to Indeterminacy. In short, it is to maximize the level of agreement those ones assumes between the beliefs of the SL community and the beliefs of the TL community. I will give a concise explanation.

The basic idea is that we translate SL expressions into the TL while assuming that the beliefs of the SL community are maximally similar to those of the TL community. One might argue that this marginalizes the possibly different world-view of the SL community. But Davidson points out that, even within the TL community itself, there is no guarantee that one member is applying the same belief system to the language as the next member. And even though the SL community might collectively hold some ontological commitment to an expression A which is incongruent with the TL community's general ontological commitment to A's TL translation (call it B). We can not go very wrong if we simply translate A as B. This is because the beliefs of the SL community, whatever they might be, must have been caused by the same objective reality which caused the beliefs of the TL community. Thus, two sets of beliefs, having resulted from the same input, cannot be radically incompatible. Some indeterminacy still exists, but no more than already exists between speakers of the same language.

I mention this argument briefly here because both Katz and Bar-On mention it briefly at the end of their essays.

4.6 Translation Stock, Conventional Criteria.

This section differs radically from the others in that it proposes that the Criteria for translation are ultimately based on conventions or traditions (except of course, for issues of stimulus meaning). This proposal, as one notices, is actually the conclusion that is drawn by Quine's indeterminacy argument. Thus, to a large degree, no explanation is needed here as it is contained in the introduction.

What does need explaining is that this in and of itself can function as a criterion of translation. We have already encountered this view when we examined Pedersen's *Essays on Translation* (section **3.3**). But whereas Pedersen was primarily concerned with demonstrating examples of the phenomenon of Translation Stock via examples from the comparative linguistics of Old English and Latin and of Danish and English, I am concerned with developing this view into to a broader theory of interlinguistic exchange.

The basic idea is that frequent exchange between any two given language communities will result in the adoption of a set of translations from the words and expressions of language A into the words and expression of language B. These sets (one from A to B and another from B to A) are the Translation Stocks of the two languages. Thus far nothing new has been said except for the use of the term Translation Stock. The new twist is that frequent exchange between A and B will result in the gradual incorporation of A's Translation Stock into B and B's Translation Stock into A. Eventually the make up of A and B will shift to a point where the two languages are in Translation Alignment with one another. This means that the lexicon, the structure, and the pragmatics of the two languages are in a kind of harmony with one another such that translation becomes highly predetermined by the Translation Stock. Thus, that for any given word or expression of A which is not novel or highly uncommon, there exists a word or expression of B that is its pre-accepted translation equivalent (and vice-versa). That is, pre-accepted by the translators and bilinguals of A and B (as a translation equivalent) and pre-accepted by the individuals of the Target community as well (as understandable and acceptable TL).

Let us examine this by means of an imaginary example. Suppose there are two communities, A and B, who live on opposite sides of a large river. Suppose, for simplicity sake, that there are only three kinds of natural events that occur in the world in which A and B live: a volcano erupting, the river flooding, and thunderstorms. Suppose that in language A these are the equivalent of: the death-fire is bursting, the great snake is fat, and the ceiling is angry. Suppose in B these are the equivalent of: the earth is bleeding, the earth is bathing, and the earth is crying. Lets say that one day a bridge is built over the river between communities A and B. Thus A and B will come into contact for the first time.

Now given that A and B are unrelated tongues and that there are no pre-existing bilinguals, the first interlinguistic event will be the creation of a pidgin between A and B. In this case the description of our 3 events could take several forms. They could be mixtures of A and B, such as 'The earth is bursting' or 'the death-fire is bleeding', or they could be taken directly from A or B, or they could be something different entirely. This case is not so interesting.

Let us skip ahead and suppose that at a later period in time, some bilinguals exist between A and B. Lets say that both communities A and B have a story of the day when all 3 events happened. In A's tongues this is: The day that the death-fire bursted, the great snake was fat, and the ceiling was angry. In B's tongue it is: The day that the earth was bleeding, bathing, and crying. Now suppose two bilinguals, one from community A and one from B, are going to translate their stories into the other language. It is obvious that one of two things can happen.

The first is to substitute A's description of the events for B's and vice-versa. Such that the translation of B's story into A would have the same title as A's story in A and vice-versa. They might decide to do this saying "Even though this is not exactly what your title says, we should translate it thus because my people are accustomed to the events being described in this way". Then the expression in A which means 'the death-fire is bursting' would come to be the translation equivalent of B's expression 'the earth is bleeding'.

But suppose instead that one of them intervened by saying, "No, to translate it this way would be incorrect, my people would not speak of the 'death-fire' but rather of 'the earth'. So they decide to translate the title of B's story with a new expression in A which means: 'The day that the earth was bleeding, bathing, and crying'. And this expression would now be the translation equivalent of B's title.

After hearing this latter version of B's story, the individuals of community A would know that if someone said in language A that 'the earth is crying' it means that 'the ceiling is angry'. After a time, speakers of A could begin to use the 2 expressions interchangeably. The Translation Stock of B becomes incorporated into A.

So with the first option introducing novelties into the TL was precluded at the risk of misrepresenting the SL. With the second option the TL was introduced to the novel expression, which came to be incorporated, and the SL expression was preserved. And there are countless options in between. Perhaps for some reason the translator from group A found the use of 'earth' acceptable but found the language B predicates unacceptable, resulting in 'The day the earth was bursting, fat, and angry'.

So which option is the correct one? The question seems inappropriate. The correct option will be the one that is adopted as a translation equivalent. And since none of them has yet to have been adopted, how can one of them be said to be correct?

One might say that option one is correct because it results in languages being preserved better over time. But why should the languages not change? Perhaps it would be advantageous for A to adopt some of the lexicon, structure, and pragmatics of B.

One might say that the second option is better because it results in greater preservation of the SL culture in translating. But in many cases this might result in translations that are unintelligible to the TL speakers. Furthermore, so called 'word for word' translations are in and of themselves problematic. The fact is that different languages do not have a word for word correspondence. Often there are 3 words in SL for one in TL, or none at all[15]. Perhaps the word for 'earth' in language B can also mean 'house'. Would it then be better to translate the story 'The day the house was bleeding, bathing, and crying'?

One might also ask in what sense translating in this way is distinct from speaking a Pidgin tongue. Indeed, even if one always elected for TL oriented translations; novelties would still have to be introduced. The concepts, culture, forms of expression, flow of discourse, etc., of the SL often differ to such a degree from the TL that purely TL sounding translations are not always possible. The tendency to use novelties in translating has been dubbed by some theorists, most notably Nida (1964,1969), as Translationese. Other theorists have argued that SL-oriented

[15] The verb 'get' in English for example, is typically translated by any of 4 or 5 words in other languages depending on the context.

translations should be valued over TL-oriented ones because the latter marginalize the source culture.

In the section on Bilinguals we noted that translation is advantageous with respect to a Pidgin in that it has greater expressive power and enables more speakers to communicate. But we also noted (footnoted that is) that 2 speakers of Pidgin, one from community A and one from B, can enable the same number of speakers to communicate as the bilingual.

It seems that the act of translating can be described as the conversion, by a bilingual, of an SL text into a heavily TL oriented Pidgin tongue. Indeed, take 2 situations. In the first we have an SL speaker talking to a TL audience in the Pidgin tongue. But this will be only partially understandable, as it will contain too many SL features. In the second situation the SL speaker spends a long period of time attempting to learn the TL. He then tells the TL audience the SL story in a kind of heavily TL-oriented Pidgin that they can more easily understand. And there are countless situations in between.

Am I saying that the difference between translation and communication via Pidgin tongues is only a matter of degree? Yes, that seems to be it. But let us halt the developments at this point as they will be more clarified after a critique of the translation criteria in general.

5.0 Critique of Translation Criteria

5.1 To what extent are the six criteria dependent on one another?

Of the criteria claiming determinacy, this is to say, all but the last mentioned criterion, it is not difficult to see that they are all dependent on native bilinguals. Indeed, we recall that both Katz and Bar-On, although citing things such as linguistic facts, both identified the intuitions of the native bilingual as the basis of objectivity. Componential Analysis is useless without someone to specify the particular features in question. Syntactic Analysis would do no good if there were no one who could say which TL words are nouns and which are verbs, etc,. Situation-Goal criteria are also in need of someone to say which words and expressions are used in which situations and with which goals. Agreement Maximalization seems to be more of a style of translating rather than a criterion for objectivity. It would seem to a translation theorist to be an unjustified prescription for maximally TL-oriented translations. From its more proper philosophical perspective, it seems to say that we can safely ignore indeterminacy if we assume an objective reality. (We can safely ignore the majority of philosophy if we assume an objective reality). But at any rate, exactly how to go about maximalizing agreement (if we were to decide to do so), would also be a task for bilinguals.

So it appears that all of the above criteria, if they are going to claim determinacy, are dependent on the native bilingual. So let us move directly to this topic.

5.2 The reason a bilingual is needed for translation is because a monolingual is completely incapable of it. The reason a native bilingual is needed for objectivity is because the mere bilingual lacks what is called the intuition of the native speaker (in at least one of the languages). The intuition of the native speaker is the ultimate criteria for the meaning of a linguistic item in the language in question. The native speaker has been acquiring this intuition from birth. She has learned to think in the language in question and has structured her psyche in conformity with or in reaction to the culture of the speech community. So the native bilingual, having 2 sets of such native intuitions, one for each language, has all the criteria needed to determine the use of each expression of each language, and thus, all the criteria needed for objective translation.

So let us suppose that this is the case, that there is a person who is truly native in two tongues. Let us suppose that one individual is reared in a home on the border between 2 distinct language communities. Let's further suppose that she is raised with equal to exposure to both idioms. That is to say, that 50% of her language exposure comes from language A and 50% from language B. She spends 50% percent of her time in the culture of community A and 50% of her time in community B. Her language ability develops evenly, favoring neither side over the other. Her early schooling has the structure of half of each day in a school of community A and the other half in one of community B. The 2 schools are of equal quality. She develops 2 groups of friends, one from each language community, with which she spends equivalent amounts of her free time. And so on, in such a way that she can be said to be a purely native bilingual.

Would this person come to think in one language as much as the other? Or might she come to favor one over the other? Would she come to think in language A in certain contexts and in language B in other contexts? Would she switch back and forth randomly in her head? Would she think one sentence in A and the next in B? Or would her thoughts be in some kind of perpetually shifting mixture of A and B? If she originally had a thought or experience in language A, does she have to remember it in A or might she remember it in B? Would she always think in A when in community A and in B in community B and when she's in her home, which is on the border, in some kind of mixture?

In what sense would she be a true native speaker of either language, taking into account that the other native speakers had 100% exposure to their native tongue? Taking into account that the other native speakers are monolinguals and she is bilingual? In what way do these kinds of questions even make sense? It seems silly to ask such things.

What I had hoped to illustrate is the following: Firstly that it is misleading to speak of a fine distinction between non-native bilinguals and native bilinguals. The vast majority of bilinguals favor one language over the other and have had greater exposure to one language over the other. In fact, a good deal of translation is actually preformed by non-native bilinguals. But if we suppose that a bilingual such as our supergirl did exist. Then she would already have a distinctly different mental structure from the other members of each language community, who are typically monolinguals. Thus there is already reason to suspect that her intuitions might differ from those of the average native speaker.

However, let us suppose further that this is not the case, let us suppose that supergirl is a member of one homogeneous supercommunity composed of entirely of superpeople who are purely native bilinguals. This community perhaps would use the 2 languages interchangeably, at times asking a question in one tongue and responding in the other, perhaps shifting in mid-sentence. They might at times speak in A but with B's syntax and vice-versa. Use B's expressions in A. Probably they would tell jokes to each other that played on the idiosyncrasies of the two tongues, much in the way we tell jokes that play on the idiosyncrasies of our own single tongue.

But in this case, in what sense could we say that these are two separate tongues? Why shouldn't we say that this community speaks only one language with many synonyms, syntactic variants, etc.? Indeed, why would the members of such a community still retain a distinction between the two tongues?

In English, we don't say that the sentence 'Nations contain agricultural areas' is in a Romance language whereas the sentence 'Lands hold farms' is in a Germanic language. Even though the first sentence is composed entirely words derived from Latin and the latter entirely of words from the Germanic family. We rather say that both are sentences of English, which is typically considered a Germanic language.

Another consideration is that the intuitions of relatively native bilinguals, do not, in reality, form a homogenous set. Translators and bilinguals alike often disagree over matters of interlinguistic transfer. What sounds like the best translation to one bilingual may sound too formal, too tentative, too assertive, or any number of things, to another bilingual, who would prefer a different translation. And even if all the bilinguals between languages A and B were able to come to a compromise on the proper translation of a particular sentence, in what sense would this be objective? After all, physicists do not vote on whether or not a neutrino has mass, or whether or not light is a particle or a wave.

Yet another consideration is revealed when we take into account the hypothetical phenomenon of Translation Stock described above. Once the translation stock has been established between two languages, bilinguals may come to base their own intuitions on the translation stock itself. This is certainly true for those who developed their bilingual ability later in life. For native bilinguals this will certainly be true at least to a large extent. Perhaps a native bilingual originally develops his own idea of the relations between his two languages, but later comes to modify them in accordance with the conventions accepted by the two language communities. This seems quite far from unlikely.

One may object that in the original tale of the death-fire community and the earth-is-bleeding community, it was the bilinguals themselves who originally generated the translation stock. Yes, this is true, but we also remember that they did so on the basis of arbitrary choices, and that there were countless other sets of Translation Stock which they could have selected for reasons no more or less justifiable than those of the one they did select.

5.3 Conclusions

So it seems that the objectivity of the intuitions of the native bilingual is not such an open and shut matter. Indeed, we have seen that communication between any two languages is never really distinct from using a Pidgin language. And that the distinction between the native and non-native bilingual is similarly problematic. Further that the intuitions of the bilingual, while of the highest value to translation, cannot give it an objective status. So we have completed our original task of exploring proposed criteria for objectivity. In the final section we will expound on the framework that has been initiated here, and hopefully, tie up a few of the many loose-ends.

6.0 Languages and Translatability.

So what does all of this mean? We have seen that the native bilingual, although the best known tool for prescribing translations, does not make translation an objective enterprise. This is because, as we have seen, the ultimate basis for translation criteria is a matter of convention, or tradition. But I hope we have also understood that this does not mean that translation is impossible, or that actual translation as it is currently practiced is in need of some kind of major change. Actual and radical translation, although indeterminate, is still the most effective method of interlinguistic communication. And until there is a universal language or until humans develop telepathic abilities, translation will continue to retain this status. Even as we speak computer scientists and linguists are developing translating machines which employ bilingual dictionaries and prescriptions for syntactic restructuring, which are based on the same conventions that are in common use among human translators. These projects are producing translations of steadily increasing quality, albeit with reliance on human translators for trouble shooting and revision. The indeterminacy of translation does not threaten or devalue such advances. It merely puts them in the proper theoretical perspective. We can best hope to minimize the possible problems that may result from indeterminacy by being aware of and understanding indeterminacy[16].

6.1 I will now examine the question of translatability and language. I will begin by establishing a minimal criterion for the intertranslatability of two languages. I will then build a framework for the translatability relations between two languages that meet the criterion.

6.20 Co-Occurrence of a Language Pair: The minimal criterion for translatability.

6.21 Definition.

If I am correct, Co-Occurrence is a concept that can broaden our understanding of the Translatability of Languages. However, Co-occurrence is not a traditional concept in the literature. I believe this is because it is widely taken for granted. The fact is that all known languages have a relatively high-degree of co-occurrence. To my knowledge there are no two existing languages that are strictly non-co-occurring. This being the case, the concept itself is in need of a definition.

First I will define intralinguistic co-occurrence, then I will add the necessary factors that will bring us to the definition of interlinguistic co-occurrence. This will then bring us to the desired definition of Co-Occurrence of a Language Pair.

I will need two other concepts: expression, and input.

Expression- Any word, phrase, or sentence that has a use within a speech community.

Input- Any set of external or internal phenomena.

The definition of ‘expression’ covers the lexicon, syntax, and pragmatics of a speech community. The definition of ‘input’ includes such things as: memories, beliefs, intentions, emotions, pain, pleasure; visual, auditory, olfactory, gustory, and tactile perceptions; etc,.

A single unit of input may contain one or all of the above. It may be merely the sound of a thunderclap or it may be as complex as the entire set of memories contained by an individual. This brings us to the definition of Intralinguistic Co-occurrence.

Intralinguistic Co-occurrence: The degree to which 2 expressions X and Y both tend to be used in response to a set of Input N, within a speech community C.

We notice that there is an ambiguity here. It could be that both X and Y are (normally) only used in response to N, and that perhaps another expression Z is used

[16] And it can cause problems. The vast majority of the historical development of European civilization was heavily influenced by what was considered the ’correct’ translation of the sacred text of the Christians. Indeed, many people were burned to death or otherwise persecuted for attempting to produce their own translations. (such as, John Wycliffe, Martin Luther, and William Tyndale) (see Bassnett-McGuire 1991, p. 45-50)

just as often in response to N. Or, on the other hand, it could be that once N occurs, the only responses normally given are X and Y, but that perhaps X is also used in response to Input P and Y in response to Q. So we have Expression-oriented Intralinguistic Co-occurrence (the former) and we have Input-oriented Intralinguistic Co-occurrence (the latter). This seems to be nothing more than an overly complex definition of synonymy. So let us add the extra factor to give us Interlinguistic Co-occurrence.

We merely stipulate in the above definition, that the two expressions come from two different language communities. Now we have Expression-oriented Interlinguistic Co-occurrence and Input-oriented Interlinguistic Co-occurrence. The Co-Occurrence of a Language Pair, the concept we are looking for, can now be defined.

Co-Occurrence of a Language Pair- The Expression oriented and Input oriented Interlinguistic Co-Occurrence for all expressions in both languages and for all inputs.

Now we see that the concept of the degree of Co-Occurrence of a Language pair is definable in terms of the concepts: input, expression, and language community. And although the sheer number of factors involved in these 3 concepts makes the measurability of the degree of Co-Occurrence of a Language Pair methodologically problematic, the concepts themselves must be assumed (in one form or another) in nearly any general theory of language. Thus, while the precise measurability of the degree Co-Occurrence between 2 languages is uncertain, the concept itself is applicable to a general theory of language. Now that we have a definition we can move on to the application.

6.22 The Principle of Co-Occurrence: Two languages are intertranslatable insofar as they are co-occurring.

In order to illuminate this Principle I will discuss two examples: The first will be a tale of two language communities which speak maximally non-co-occurring languages, the second will be an examination of two languages which are completely co-occurring. We will see that the two languages in the first example will be entirely Untranslatable with respect to one another. Further, that the languages of the second example will have a maximal degree of translatability.

Suppose that a group of extraterrestrials land on planet earth in their spaceship. Suppose further that, contrary to what we have seen in TV and films, they do not speak English. They come from a strictly monolingual civilization and thus have developed no linguistic sciences of their own. So earth linguists are sent to establish some kind of communication with the group. The earth linguist begins by showing them a series of pictures in hopes of getting a linguistic response and thereby being able to establish the foundations of a translation manual.

He shows them a picture of a tree and they respond ’kwam-kwam’. He shows a picture of a cloud and they say ’jiburish’, etc,. After a series of 20 pictures our linguist notices that they said 'kwam-kwam' in response to ‘vacuum-cleaner’ as well as to 'tree'. To verify this, the linguist shows the picture of the vacuum-cleaner again but this time they say 'flooby'. Confused, he shows the picture of the tree again and they say 'nog'. He shows them all 20 pictures again and each time they respond in a different way. At the end of this frustrating day the linguist attempts to make his preliminary translation manual.

He writes that 'tree' in their tongue is equivalent to- 'kwam-kwam', or 'nooby', or 'gluch', or 'splarf', or 'goorb', and a dozen or so other words. He attempts to go in the other direction and writes that 'kwam-kwam' means- 'tree' or 'cloud' or 'toilet' or 'vacuum-cleaner' or 'pizza', and so on, to a list of 20 or so words.

It is clear that these two tongues will not be translatable. Any attempt to design a translation manual will result in a series of disjunctive lists so large as to render the manual utterly useless. Our linguist eventually gives up and the aliens shrug their shoulders and go home.

One may ask 'How can it be that the aliens respond in such a way'? It could be that their words are referring to some kind of information that is imperceptible to us. Or it could be that their linguistic responses seem completely consistent to them, but not so to us. It really doesn't matter. The point is that these two tongues are strictly non-co-occurring and strictly untranslatable.

But suppose that our linguist was able do determine that one of the alien words 'gwid' can only mean 'cigarette' or 'lawnmower'. Suppose further that the aliens have no other word for 'cigarette' or 'lawnmower'. Then the two languages would have a very slight degree of translatability due to the relative smallness of the disjunctive definition of 'gwid'. Now our linguist can proudly say to an English audience, when he hears the word 'gwid', that 'They're either talking about a cigarette or a lawnmower'. Further, he can offer the aliens a cigarette (and/or a lawnmower) by saying 'gwid?'.

So we increase the level of Co-occurrence and the Translatability increases.

Now let us examine two languages which are strictly co-occurring. One may be surprised to find that two such languages exist. Some examples are English and Pig-Latin[17], or French and Verlans[18]. One may argue that Pig-Latin and Verlans are not actually languages, I would agree, but they can be formulized as such by making the appropriate variations on the formulizations of English and French. Now it is evident that such a language pair will be strictly co-occurring. They will contain exactly parallel ambiguities, polysemies, homonyms, nuances, forms of expression, etc,. For example: the letter 'y' and the word 'why' will also be pronounced the same in Pig-Latin (like 'I way'). The only difference will be that Pig-Latin will contain more syllables, and that rhymes in English will be internal in Pig-Latin.

We note that these language pairs are also completely intertranslatable. To translate any sentence of English into Pig-Latin you simply apply the Pig-Latin formula to each word in the sentence. The same is true for French and Verlans. Translations of this sort could be performed with complete accuracy by a simple computer program.

6.3 Conclusions

So it appears now that a certain degree of Co-occurrence between a language pair is the minimal condition for their inter-translatability. Furthermore, that the level of Translatability of a language pair is equal to their level of Co-occurrence.

Now let us examine the translatability relations between two language pairs, given that the have at least a relatively high degree of co-occurrence.

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[17] Pig-Latin was a way of altering English speech to imitate the sound of Latin. To speak in Pig-Latin you simply take an English word, place any initial consonants at the end, and add 'ay'. Thus 'bread' is 'ead-bray', 'car' is 'ar-cay', 'think' is 'ink-thay', 'Argentina' is 'Argentina-ay' etc.

[18] Verlans is the name of a kind of French backwards-slang. You simply switch the syllables of any word with more than one syllable. Such as: 'je vais savoir demain' becomes 'je vais voir-sa main-de'. It is spoken primarily by a younger generation and many members of the older generation find it unintelligible.

At this point we have come back to the old examples. We have two language communities, A and B, with two distinct but relatively highly co-occurring languages. Once there is bilingual or group thereof, a Translation Stock can be developed. Thru the course of the development of this Translation Stock, language A and B, will eventually be brought into a Translation Alignment. A state in which both the languages have an accepted abstract formulation in relation to one another. The lexicon, syntactic structure, and the pragmatics of each language will have respective counterparts in the other language. At this point there will exist an accepted translation function between the two tongues. Once this occurs, interlinguistic communication has reached its optimal state. The only thing further that can be done is for members of both communities to learn the language of the other. At which point, as we have seen, the distinction between the two languages may eventually breakdown until there remains, in essence, only one language, language AB.

But what about normativity? How does this theory leave room for the fact that certain norms are included in the practice of translation? Well, a certain degree of normativity will come from the stimulus-meanings (input) of the expressions. However, if this were the only normativity in translating then the Target audiences would be unable to handle the presence of so many divergent translation schemes. For this reason a Translation Stock is necessary. It enables the two speech communities to communicate with one another in a relatively predictable way. The results of the translation schemes which diverge from the Translation Stock can then dismissed as 'bad translations'. So we have Normativity, but not Determinacy.

One further thing to note is that, as the level of co-occurrence between two tongues increases, the number of possible Translation Stocks decreases. We notice that between English and Pig-Latin that the translation relation is prefixed, and that no conventions are needed (nor possible). Unfortunately it is ridiculously unlikely that such a level of Co-occurrence might occur between two natural existing languages. Indeed, if Pig-Latin were to have a distinct population of native speakers for any significant period of time, the level of Co-occurrence between it and English would certainly begin to decrease to the point where a large number of perscribable Translation Stocks would be possible.

If the level of Co-occurrence is too low then the possible Translation Stocks become so divergent that it renders translation in any meaningful sense impossible. An interesting study might be one that applies this model to the known languages. Examining the level of Co-occurrence among tongues within the Indo-European family as compared with non-Indo-European tongues. It could also examine the current Translation stocks in use between tongues within the Indo-European family and between non-related tongues. Similar studies within other language families would also be of interest, such as between: Hebrew and Arabic, Chinese and Tibetan, Finnish and Hungarian. Studies involving independent tongues would also be of interest, such as: Japanese, Basque, or Korean. Unfortunately such research is far beyond the scope of this paper, and would require some fixed methodology for measuring Co-Occurrence. While such a methodology would be extremely difficult to devise, I see no a priori reason to say that it is impossible.

We can conclude here by stating the following. Indeterminacy is real, but this does not means that all translating should cease until it is resolved (which is not feasible anyway). On the contrary, we have seen that translating, although not based in empirical objectivity, is the most efficient tool for interlinguistic communication. We have also seen that the intertranslatability of any given language pair can be determined by their level of Co-occurrence (to the extent that this is theoretically measurable). And that if 2 tongues are sufficiently Co-occurring, and if there exists a speaker of both tongues[19], then a Translation Stock can be developed and the two tongues can be brought into a state of Translation Alignment. All of this opens up at least as many questions as it answers, and probably quite a bit more. It is my hope that these questions may be the topic of future research.

Appendix 1. Basic Form of Communication and Possible Outcomes.

2 possibilities: Either B suspects A's mental state or not.

1. B suspects A's mental state.

    2 sub-possibilities: Either A and B used language or they did not.

    1.1 They used language

[19] In the case of dead languages, who have no native speakers, translations is still possible. In the cases of Latin, Sanskrit, Ancient Chinese, etc, the Translation Stock is either pre-existing the death of the language and developing from that point, or partially derived from its children languages (Spanish, Hindi, Mandarin, etc,). If a dead language was discovered with an unfamiliar alphabet and no known relative tongues, one would not even be able to identify its expressions with inputs in order to determine its degree of Co-Occurrence with another tongue. It would thus, lacking further evidence, be indecipherable.

1.11 A and B are both native speaker of the language
1.12 At least one is non-native.
(1.12 has a greater likelihood of error than 1.11)

1.2 They did not use language.

1.21 By chance or by routine.
1.22 Other method: gesturing, pictures, noise, violence, affection, telepathy.

2. B does not suspect A's mental state.

Three sub-possibilities: B is unaware, B is aware but does not suspect, B is aware but mis-suspects.

2.1 B is unaware: B is unconscious, far away, a jellyfish, etc.

2.2 B is aware but unsuspecting.

2.21 B is ignoring A, A is being ambiguous, A is unable to speak well, etc.
2.22 A and B do not speak the same language.

2.3 B is aware but mis-suspects: Any of 2.21 or 2.22 if B makes an incorrect guess. If B guesses correctly then see 1.21.

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