A PERFORMATORY ANALYSIS OF THE OVERT USE OF THE PREDICATE "TRUE"

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By

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July, 2013

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ABSTRACT

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The deflationary theory has been one of the most influential theories of truth in contemporary philosophy. This theory holds that there is no property of truth at all, and that overt uses of the predicate "true" in our sentences are redundant, having absolutely no effect on what we express. However, all hypothetical examples used by deflationary theorists in exemplifying the theory, in papers, books, have been taken out of context. Thus, there is no way to examine and analyze what the predicate adds to the sentence within context. We oppose this theory not on philosophical grounds, but on empirical grounds, with an "ordinary language philosophy" approach. We computationally collect 7610 occurrences of overt uses of the predicate "true" in the form "it is true that", from 10 influential periodicals (newspapers and a magazine) published in the United States. We classify and annotate these examples with respect to coordinating and subordinating conjunctions' positions they contain. We investigate contextual relations of the proposition following the phrase "it is true that" with its surrounding propositions. We encounter 34 different syntactical patterns. We propose that in some occurrences of overt uses of the predicate "true", existence of the predicate makes an emphasis, performs an action in the same manner as a performatory verb does. We provide ordinary language appearances of overt uses of the predicate "true", which have been used in linguistically reliable media and constitute pragmatic 'counter-examples' to the deflationary theory of truth.

Keywords: truth, pragmatics, the deflationary theory, ordinary language philosophy, corpus-based linguistics, natural language semantics, part of speech tagger, classification.

ÖZET

"DOĞRU" KELİMESİNİN YÜKLEM OLARAK AÇIK ŞEKİLDE KULLANIMININ EDİMSEL BİR ANALİZİ

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Deflasyonal teori, günümüz felsefesinin en etkili doğruluk teorilerinden birisidir. Bu teori, doğruluğun bir özellik olmadığını ve "doğru" kelimesinin cümle içinde kullanımının gereksiz olduğunu; diğer bir deyişle, bu cümleleri kullanarak ifade ettiğimiz şey üzerinde kesinlikle hiçbir etkisi olmadığını savunur. Fakat, deflasyonal teorisyenlerin kitaplarında, makalelerinde bu teoriyi örneklendirmek için kullandıkları varsayımsal cümlelerin tamamı bağlamlarından çıkarılmıştır. Dolayısıyla, "doğru" kelimesinin bağlam içerisinde, kullanıldığı cümleye anlamsal bakımdan ne kattığını analiz etmek imkansız bir hal almaktadır. Biz bu teoriye felsefi bir zeminde değil, empirik bir zeminde, gündelik dil felsefesi yaklaşımıyla karşı çıkmaktayız. "Doğru" kelimesinin yüklem olarak açık şekilde kullanıldığı 7610 adet örnek, ABD'de basılan 10 gazete ve derginin arşivlerinden bilgisayar yardımıyla toplandı. Bu örnekler önce bilgisayarla, daha sonra okunarak içerdikleri bağlaçların konumuna göre sınıflandırıldı. Bu sınıflandırmanın amacı "doğru" kelimesinin kullanıldığı önermenin, etrafındaki önermelerle bağlamsal ilişkilerini irdelemektir. 34 farklı sözdizimsel örüntü ile karşılaşıldı. Bu araştırmadaki argümanımız, "doğru" kelimesinin bazı kullanımlarında, bu kelimenin varlığının edimsel bir fiille aynı minvalde vurgu yaptığı ve edim gerçekleştirdiğidir. Bu tezde, dilsel olarak güvenilir medyada kullanılmış ve deflasyonal teoriye karşı örnek oluşturan, "doğru" kelimesinin açık şekilde kullanıldığı gündelik dil örnekleri sunulmaktadır.

Anahtar sözcükler: doğruluk, pragmatik, deflasyonal teori, gündelik dil felsefesi, külliyat tabanlı dilbilim, doğal dil semantiği, sözcük türü etiketleyicisi, sınıflandırma .

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Chapter 1

Introduction

Frege famously claimed that discovering truth is the aim of all sciences. He placed "true" into the evaluative bag along with "good" and "beautiful"[1] and in this, he has been followed by countless others [2]. All sciences have truth as their goal; however, truth is a matter of interest not only to scientists but to all those who desire to know about anything whatsoever.

Johnson [3], views the matter as follows; "No one could presume to say when, in the mists of the past, people or perhaps our pre-human ancestors first took an interest in what was true and what was not, but the question would arise in some form for any being which took an interest in the world and could wonder whether things were one way rather than another."[3] In other words, interest in truth is a fundamental concern originating from an interest in the world. To quote him again: "Certainly any beings which could develop a language would have, would *have* to have, a basic concern for whether things said were so. People may not be concerned with truth on every occasion, but if they never were, there could be no understanding of things said, nor could anything be said at all."[3]

While truth has long been a concern, the chief concern, almost always, has been to determine which things are true and which are not, rather than to determine just what truth is. However, in the last century or so, there has been a philosophical interest in the subject of truth.

In contemporary philosophy, truth is considered to be one of the central subjects [4]. A huge variety of issues in philosophy relate to truth; either by implying theses about truth, or relying on theses about truth. Truth is also one of the most actively researched subjects in contemporary philosophy. One can find many books and edited collections focusing primarily on truth. A particular example showing the importance of the subject is that, in celebration of the 125th year of its *Proceedings*, The Aristotelian Society organized their first ever Online Conference in April 2013 [5]. This was a week-long event featuring a classic paper a day from their back catalogue each accompanied by a commentary by a contemporary philosopher, on particularly the topic of truth. Seven classic papers starting from Ramsey [6] are featured, with accompanying commentary, for most of the issues discussed in the classical papers are still being debated.

In this thesis, we are going to take issue with one of the most influential truth theories in contemporary philosophy, using some computational techniques. It would be impossible to examine and present all there is to say about the subject of truth in an MS thesis. Instead, we try to concentrate on main themes in the study of truth in contemporary philosophical literature, as much as these are required by our study.

1.1   Truth Theories

The philosophical problem of truth is easy to state: what truths are and what makes them true, if anything. However, a great deal of controversy arises from this simple outlook [4]. For instance, whether there is a metaphysical problem of truth, and if there is, which theory might address it, are lasting issues in the theory of truth.

1.1.1 The Neo-classical Theories of Truth

Much of the contemporary philosophical literature on truth takes its origin from ideas that were prominent in the beginning of the last century. There were a number of theories discussed at that time; however, we are only going to review correspondence, coherence and pragmatist theories, which seem to be the most significant.

Before going any further, it should be noted that these three theories, and their reflections on contemporary literature, directly attempt to answer the question: "what is the nature of truth?" They take the question at face value; there are truths and the question to be answered concerns their nature [4]. In answering this question, they all rely on theses of metaphysics or epistemology and make the notion of truth a part of them.

1.1.1.1 The Correspondence Theory

The correspondence theory of truth is the view that truth-value (value indicating the relation of a truth-bearer to truth: true or false) of a truth-bearer (bearers of truth or falsehood) is determined only by whether it corresponds to a fact [7]. This view was strongly advocated by Russell and Moore, early in the 20th century [8][9][10]. It should be noted that, the correspondence theory does not refer to a particular theory; but a set of theories, varying in specific details, yet explicitly embracing the idea that truth consists in a relation to reality. This view presupposes the existence of a reality external to the human mind, thus generally associated with metaphysical realism [7].

1.1.1.2 The Coherence Theory

The coherence theory of truth states that the truth-value of a truth-bearer is solely determined by its coherence with some specified set of truth-bearers [11]. This theory differs from the correspondence theory in two essential respects: according

to the former, truth conditions of truth-bearers consist in other truth-bearers and the relation is coherence; while according to the latter, truth conditions of truth-bearers are not truth-bearers, but objective features of the world, and the relation is correspondence. The coherence theory is typically associated with idealism [4].

1.1.1.3 Pragmatist Theories

Pragmatist theories go with some engaging slogans and intriguing claims which often seem to fly in the face of common sense. For example, Peirce is usually understood as holding the view that "Truth is the end of the inquiry."[12] This slogan tells that true beliefs will remain settled at the end of a prolonged inquiry. James is associated with the slogan "'The true', to put it very briefly, is only the expedient in the way of our thinking, just as 'the right' is only the expedient in the way of our behaving. Expedient in almost any fashion; and expedient in the long run and on the whole, of course."[13]

1.1.2 Tarski's Theory of Truth

Tarski set himself the task of putting semantics on the secure foundations of mathematics [14]. In order to accomplish his task, he tried to provide mathematical definitions of semantical concepts including truth. In [15] he discussed the criteria a definition of "true sentence" for a formal language should meet and gave examples of several such definitions for particular formal languages.

Tarski's condition is embodied in what he calls Convention T [4]:

> For each sentence ϕ of the language L, an adequate definition of truth
> must *imply*,

$$< \phi > \text{ is true in L, if and only if } \phi.$$

The language under discussion, L, is the object language. The definition of truth and the adequacy condition should be given in another language known as

the metalanguage M [16]. Anything one can say in L, can be said in M too. But M should be able to talk about sentences of L and their syntax [16]. Namely, the main purpose of forming M is to formalize what is being said *about* L. In this context, $[\phi]$ is the name of the sentence ϕ in M, which is originally in L.

For example, if the object language, L, is German and the metalanguage, M, is English, then Convention T states: " 'Der Schnee ist weiß' is true (in German) if and only if snow is white."

It is significant to note that this theory applies only to formal languages and not to natural languages. In [15] Tarski proposes a number of reasons for not extending this theory to natural languages.

1.1.3 The Deflationary Theory of Truth

We have seen that, substantial theories of truth are typically associated with metaphysical theses, they even *embody* metaphysical positions [4], viz. truth consists in correspondence to the facts, truth consists in coherence with a set of beliefs or propositions, or truth is the ideal outcome of rational inquiry. However, to a deflationist, these suggestions all share a common mistake, which is to assume that truth *has* a nature of the kind that philosophers might find out about and develop theories of [17]. According to a deflationist, truth does not carry any metaphysical significance at all [4].

Deflationary theorists take their cue from *the equivalence thesis* which appears in Ramsey [6]:

$$< < \phi > \text{ is true} > \text{ has the same meaning as } \phi.$$

In this schema angle brackets form a singular term, namely they produce an expression that refers to the propositional constituent expressed by what ϕ says.

The deflationary theory basically holds that there is no *property* of truth at all, and overt uses of the expression "true" in our sentences are redundant; namely,

having no effect on what we express, in using these sentences. The predicate "true" only enables us to express commitments that, given our limitations, we could not otherwise express [14]. If I say "Everything he says is true.", I mean that the propositions he asserts are always true and there does not seem to be any way of expressing this without the predicate "true". To a deflationist, it is this feature of the concept of truth (its role in the formation of generalizations) that explains why we have a concept of truth at all.

On the other hand, the deflationary theory holds that to assert that a statement is true is just to assert the statement itself [17]. For example, to say that "snow is white" is true, or that "it is true that snow is white", is equivalent to saying simply that snow is white; and this is all that can be said significantly about the truth of "snow is white" [17]. We are going to take issue with only this (overt) uses of the predicate "true", in the form of "It is true that".

The theory is often associated with Tarski, since instances of Convention T are used in theoretical defense of the theory. But, rather than taking the instances of Convention T to be *implications* of a formal theory of truth, deflationists propose that we take those instances to exhaust the theory of truth [14].

This theory has gone by many different names, including: the redundancy theory, the disappearance theory, the no-truth theory, the disquotational theory, and the minimalist theory [17]. There is no terminological consensus on how to use these labels; however, different interpretations of the equivalence schema yield different versions of deflationism [17]. One important distinction concerns that, instances of the equivalence schema are about whether sentences or propositions. The other dimension along which deflationists vary, concerns the nature of the equivalence in the schema; whether it's analytic, necessary or material equivalence.

The deflationary theory merely suggests that, there is no substantial metaphysics to truth. It doesn't have any metaphysical dependence and implication, so doesn't encounter problems or oppositions originating from metaphysical issues; unlike other theories of truth. Mostly because of this reason, deflationism in truth has been an influential view since the 1970s [18].

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In this thesis, we oppose the deflationary theory of truth not on philosophical grounds, but on empirical grounds. In order to accomplish that, we (using computational means) collect ordinary language examples, which include sentences where the predicate "true" is overtly used in the form of "it is true that *(proposition)*"[1]. Then, we present examples, which are not hypothetical, where the predicate "true" is not redundant.

1.2   Strawson's Ideas

In [19], Strawson confines himself to the question of the truth of empirical statements. Strawson takes the philosophical problem of truth to be the same claim as the actual use of the word "true".

Strawson suggests that there exists some non-descriptive, performatory uses of the word "true". A *performatory* word, in Austin's sense [20], is a verb the use of which, in the first person indicative, seems to describe some activity of the utterer, but in fact is that activity. Even though, the use of "is true" does not seem to describe any activity of the speaker, it seems to describe a sentence, a proposition or statement; Strawson's main point of using Austin's word is the fact that, he suggests that the phrase "is true" can *sometimes* be replaced, of course with necessary verbal changes, without any important loss of meaning, by some such phrase as "I confirm it", which is a performatory word in the strict sense [19].

In this thesis, after examining and analyzing data consisting of ordinary language examples of the phrase "true", we are going to discuss our results in the light of Strawson's ideas on non-descriptive and performatory uses of the word "true".

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[1]We don't go into the discussion of whether truth-bearers are sentences, statements or propositions. We simply take truth-bearers as propositions.

1.3 Overview of the Thesis

This thesis is organized as follows. We first present hypothetical examples used by deflationists, explain the motivation and need for our research and finally present our novel approach to the literature of truth theories in full detail in Chapter 2. We explain our methodology in obtaining, classifying and annotating ordinary language data in Chapter 3. We present results of our classification in Chapter 4 and discuss implications of these results in Chapter 5. Finally, we put some concluding remarks in Chapter 6. The thesis has also two appendices.

Chapter 2

Background

Deflationism is typically characterized as the view that truth has no nature. Namely, the predicate "true" does not signify a robust property; there is nothing that all sentences, statements or propositions to which the predicate "true" applies have in common [17]. However, examples used by deflationary theorists in their work in order to exemplify the theory show some peculiarities.

2.1 Hypothetical Examples by Deflationists

Early implications of the theory can be seen in Frege, Ramsey, Ayer and Quine. Though they differ in points of detail, we can see recognizable versions of the doctrine, with examples. Note that, example sentences are underlined.

> "It is worthy of notice that the sentence 'I smell the scent of violets' has the same content as the sentence 'it is true that I smell the scent of violets'. So it seems, then, that nothing is added to the thought by my ascribing to it the property of truth."[1]

> "Truth and falsity are ascribed primarily to propositions. The proposition to which they are ascribed may be either explicitly given or

described. Suppose first that it is explicitly given; then it is evident that 'It is true that <u>Caesar was murdered</u>' means no more than that Caesar was murdered, and 'It is false that Caesar was murdered' means no more than Caesar was not murdered."[6]

"It is evident that a sentence of the form 'p is true' or 'it is true that p' the reference to truth never adds anything to the sense. If I say that it is true that <u>Shakespeare wrote Hamlet</u>, or that the proposition 'Shakespeare wrote Hamlet' is true, I am saying no more than that Shakespeare wrote Hamlet. Similarly, if I say that it is false that Shakespeare wrote the Iliad, I am saying no more than that Shakespeare did not write the Iliad. And this shows that the words 'true' and 'false' are not used to stand for anything, but function in the sentence merely as assertion and negation signs."[21]

"The truth predicate is a reminder that, despite a technical ascent to talk of sentences, our eye is on the world. This cancellatory force of the truth predicate is explicit in Tarski's paradigm:

<p style="text-align:center">'<u>Snow is white</u>' is true if and only if snow is white.</p>

Quotation marks make all the difference between talking about words and talking about snow. The quotation is a name of a sentence that contains a name, namely 'snow', of snow. By calling the sentence true, we call snow white. The truth predicate is a device for disquotation."[22]

In addition to being popular historically, the deflationary theory has been the focus of much recent work [17]. This theory's most vociferous contemporary defender seems to be Horwich; and hypothetical examples he uses in some of his key papers are as follows:

"This schema says that whatever property 'meaning <u>snow is white</u>' may be, any sentence that possesses it is to qualify as 'true' if and

only if snow is white; and whatever property 'meaning dogs bark' may be, any sentence that has that property is to qualify as 'true' if and only if dogs bark; and so on."[23]

"Consider, for example, the logical law, 'If snow is white, then snow is white; and if quarks exist, then quarks exist; and so on ...' We would like to be able to state this generalization in a rigorous way. And we can solve this problem with the help of the equivalence schema."[24]

"And similarly we can always obtain a generalization from a statement about a particular object by, first, selecting some kind or type, G, to which the object belongs, and then replacing the term referring to the object with the quantifier 'Every G'. However there is an important class of generalization that cannot be constructed in anything like this way: for example, the one whose instances include

(a) If dogs bark, then we should affirm 'dogs bark'
(b) If God exists, then we should affirm 'God exists'
(c) If killing is wrong, then we should affirm 'killing is wrong'

In this case, and in various others, the usual strategy doesn't work."[25]

"'snow is white' is true if and only if snow is white, and 'lying is wrong' is true if and only if lying is wrong."[26]

"So, in order to solve this small technical problem, we deploy the a priori equivalence; the proposition that $e = mc^2$ is true iff $e = mc^2$, enabling our original normative commitment to be roughly recast as, It is desirable that: one believe the proposition that $e = mc^2$ just in case the proposition that $e = mc^2$ is true."[27]

"It must tell us what it is about, e.g., 'The sky is blue' that explains why it tends to be recognized as true if and only if it is true."[28]

There seem to be some problems, considering examples used in explaining the theory. However, most important problem is that; these examples have been taken out of context. So there is no way to examine and analyze what the predicate "true" adds to the sentence *within* context, and it becomes easier to see it redundant, thus eliminable. For example, suppose that we know "Socrates is a man." Now, consider following three sentences;

(1) **If** all men are mortal, **then** Socrates is mortal.

(2) **If** it is true that all men are mortal, **then** Socrates is mortal.

(3) It is true that **if** all men are mortal, **then** Socrates is mortal.

To a deflationist (1), (2) and (3) have the same meaning. Namely the phrase "it is true that" is redundant. However, it seems that (2) and (3) are different from (1). In (3) the phrase makes an extra emphasis on the logical inference and strengthens the conditional. In (2) the phrase makes an emphasis on the condition in the sense that it may not be true, namely it adds suspicion to the condition.[1]

Our goal is to investigate contextual relations of this phrase, with its surrounding sentences (co-text) in ordinary language examples, which are not hypothetical.

2.2   Ordinary Language Philosophy

Before explaining our approach in full detail, it would be appropriate to mention the antagonism between ideal language philosophy and ordinary language philosophy. In order to see the significance of ordinary language philosophy, one

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[1]Note that, 'if' is a logical connective. It carries no implicature unlike some other conjunctions. Being able to present a difference using a logical connective have some significance.

needs to understand what Austin and his colleagues were reacting against. In [29], Thomas summarizes the Austinian approach as follows:

> "[Russel and his followers'] aim was to *refine* language, removing its perceived imperfections and illogicalities, and to create an ideal language. The response of Austin and his group was to observe that ordinary people manage to communicate extremely effectively and relatively unproblematically with language just the way it is. Instead of striving to rid everyday language of its imperfections, he argued, we should try to understand how it is that people manage with it as well as they do."[29]

In this thesis, we adopt an ordinary language approach against the deflationary theory of truth.

2.3   Our Approach

Our aim is to challenge the deflationary theory of truth, not on philosophical grounds but on empirical grounds. We examine and analyze ordinary language examples, where the predicate "true" is used overtly (in other words, within the phrase "it is true that."). Search engines return an excessive number of results for the query "it is true that", however we need to examine examples used in linguistically reliable media, in order to avoid uses of the phrase due to stylistic reasons. We collect ordinary language examples from 10 popular and respectable periodicals published in the United States. These are considered to be linguistically reliable sources of English as they undergo strict editorial scrutiny. We analyze 7610 different examples collected from these sources, where the phrase "it is true that" is used.

The focus of our analysis is to investigate contextual relations of the proposition containing the phrase with its surrounding propositions. We extract co-ordinating and subordinating conjunctions and determine syntactical patterns

with respect to these conjunctions' positions. Finally we discuss ordinary language examples, which have been used in linguistically reliable media. It seems that, making discussion on these will not take us long, nor, perhaps, far, "but in philosophy the foot of the letter is the foot of the ladder." as Austin says [30].

As a final remark, it should be noted that, this thesis is novel in the sense of its approach and its findings, vis-a-vis the contemporary research on truth theories. It's not a theoretical contribution to the literature on truth. Rather it is a treatise on the practical implications of a deflationary view. It seems that the deflationary outlook leaves something to be desired in the light of actual examples of usage (of "it is true that").

Chapter 3

Methodology

We perform an analysis by acquiring ordinary language examples from archives of 10 popular periodicals published in the United States. We use Bing Search Application Programming Interface (API). We preprocess data, in order to get the relevant co-text, for each example. Then, we syntactically classify data with the help of Stanford University Natural Language Processing (NLP) Group's Part of Speech (POS) Tagger. Finally, we annotate syntactically classified examples.

3.1   Bing Search API

Bing Search Application Programming Interface (API) [31] is a web service provided by Microsoft via Windows Azure MarketPlace [32][1]. With this API, one can obtain and use data which is collected by the Bing Search Engine. This API provides a flexible and powerful search engine as a custom search component in applications. We don't need to crawl and index textual data from archives of periodicals, ourselves, for this analysis. We can use textual data which is already crawled and indexed by the Bing Search Engine, thanks to this API.

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[1]Windows Azure Marketplace is a cloud-based data service that enables users to find and consume published data sets and web services. Bing Search API was added to the MarketPlace on April 11, 2012.

In this thesis, we use Bing Search API in order to retrieve textual data we need, namely ordinary language examples to be analyzed, from periodicals in Table 3.1.

Table 3.1: List of Periodicals Used

Name	Website
The Washington Post (daily)	washingtonpost.com
The New York Times (daily)	nytimes.com
The Los Angeles Times (daily)	latimes.com
The Chicago Tribune (daily)	chicagotribune.com
The San Francisco Chronicle (daily)	sfgate.com
The USA Today (daily)	usatoday.com
The New York Post (daily)	nypost.com
The Washington Examiner (daily)	washingtonexaminer.com
The Boston Globe (daily)	bostonglobe.com
The Nation (weekly)	thenation.com

Bing Search API provides following service operations: Web Search, Image Search, Video Search, News Search, Related Search and Spelling Suggestions. Users can request a single source type or multiple source types with each query. In this study, we perform only Web Search in order to get ordinary language examples from periodical's archives. This API works as follows, the application sends a request to the HTTP endpoint, namely to the associated machine's Unified Resource Identifier (URI). This request consists of search options and the account key. Then the query's Uniform Resource Locator (URL) is constructed with the Open Data Protocol (OData) specification [33]. Names of the reserved parameters are regulated in order to comply with the OData standard. Table 3.2 lists the reserved parameters of this API [34].

Note here that, the maximum value the reserved parameter $top gets is 50. Thus we can get results, for a specific query, with blocks of maximum size 50. We change the value of the $skip parameter in order to get all results, with blocks of size 50, corresponding to a specific query requested; but we can get at most 1000 results for a query because of $skip parameters value range. Finally, we

Table 3.2: Reserved Parameters for Bing Search API

Reserved Parameters	Description	Default Value for Web Search	Value Range for Web Search
$top	Specifies the number of results to return	50	1-50
$skip	Specifies the offset requested for the starting point of results returned	0	0-1000
$format	Specifies the format of the OData response	Atom	Not Applicable

use $format parameter as Atom. Input parameters (options for the Web Search service operation) are given in Table 3.3 [34].

We select input parameter Market as "en-US" in order to get all possible results from periodicals' websites, which are US-based. We leave other input parameters, except the query, at their default values. Note that Web Search Service doesn't have a date parameter, so we perform our searches without determining a date interval.

We perform Web Search using two different queries, namely queries: "it is true that" and "it's true that", for each periodical. Thus we take "it is" and "it's" to be equivalent. Bing Search API doesn't have any separate input parameter for site specific search. However, we can embed specific sites to the query. For example, in order to perform a search only within *The Nation* with the query "it is true that", we can use the query "it is true that site:thenation.com".

We use this API in a Visual Studio C# project. Some URL's contents, which this API returns as result, were removed and cannot be reached via HTTP request. There seems to be a small number of abnormalities; such that, for the query "it is true that", Bing may return a website containing "...it is true. That..." as a result. After we exclude such abnormalities, total number of results we get, as of March 5, 2013, is 7610. Number of results we get for each periodical-query

Table 3.3: Input Parameters for Web Search Service

Name	Type	Required	Description
Query	String	Yes	Bing search query
Adult	String	No	Setting used for filtering sexually explicit content
Latitude	Double	No	Latitude (north/south coordinate). Valid input values range from -90 to 90
Longitude	Double	No	Longitude (east/west coordinate). Valid input values range from -180 to 180
Market	String	No	If the parameter is not specified, the API attempts to determine an applicable market through the use of logic such as the IP address of the request, cookies, and other elements
WebFileType	String	No	File name extensions to return

pair, are given at Table 3.4

We examine contextual relations of the proposition following the phrase "it is true that" (or its equivalent "it's true that") with its surrounding propositions. In order to accomplish that, we get the co-text for each result, namely the paragraph containing the phrase. We get the corresponding paragraph for each result's URL, and keep them in an Extensible Markup Language (XML) file, built for each periodical-query pair. We have 20 such XML files.

For example, part of the XML file built for the periodical *The Nation* and the query "it is true that" is given in Figure 3.1.

Table 3.4: Number of Results for Each Periodical-Query Pair

Periodical/Query	"it is true that"	"it's true that"	TOTAL
The Washington Post	836	909	1745
The New York Times	680	867	1547
The Los Angeles Times	682	740	1422
The Chicago Tribune	322	449	771
The San Francisco Chronicle	301	439	740
The USA Today	215	421	636
The Nation	164	195	359
The New York Post	40	109	149
The Washington Examiner	42	90	132
The Boston Globe	33	76	109
GRAND TOTAL	**3315**	**4295**	**7610**

```
-<thenation.com>
 -<URL>
     http://www.thenation.com/article/easy-rider
     <TEXT> It is true that every night over their campfire Wyatt and Billy smoke pot, achieving thus a
     sudden irrational loquacity, accompanied by inane giggles. They pity friend George for his
     addiction to booze. But, so the script goes by these knowing men, when George is sober he is
     wide awake, when the other two are not high they are merely low, if indeed not half asleep. It may
     only be coincidence, and marijuana may yet be recognized as the cure for what ails us all, but the
     demeanor of Wyatt and Billy does not seem to prove the point. </TEXT>
 </URL>
 -<URL>
     http://www.thenation.com/blog/169412/paul-ryan-doesnt-follow-ayn-rand-civil-liberties
     <TEXT>This, alas, is false. It is true that Ryan, like his mentor Jack Kemp, subscribes to Rand's
     heartless belief in refusing to aid the less fortunate. But Ryan does not share any of Rand's
     commitments to freedom, other than the freedom to be selfish. </TEXT>
 </URL>
```

Figure 3.1: Part of XML File after Bing Search API

Note that, the entire XML file contains 162 more URL and TEXT tags as can be deduced from the Table 3.4.

3.2   Stanford NLP: Part of Speech Tagger

Parts of speech have been recognized in linguistics for a long time [35]. It is a linguistic category of words generally defined by the syntactic and morphological behaviour of the word in question. (It is also called as word class, lexical class or lexical category.) The most basic categories are noun, verb, participle, article, pronoun, preposition, adverb and conjunction. In contemporary studies, part of speech tag lists are much more detailed. Note here that, tagging means automatic assignment of descriptors (tags) to input tokens. Thus, a part of speech tagger is a program that reads text in some language and assigns parts of speech to each word.

We use Stanford University Natural Language Processing (NLP) Group's Part of Speech (POS) Tagger [36] in order to tag each word in paragraphs, which contain ordinary language examples of the overt use of the predicate "true", acquired via Bing Search API. Stanford POS Tagger is a Java implementation of the log-linear part of speech taggers described in [37][38]. This part of speech tagger is trained on Wall Street Journal corpus [39] sections 0-18 using a bidirectional architecture and including word shape and distributional similarity features. It's success rate is 97.28% on Wall Street Journal sections 19-21 and 90.46% on unknown words [40]. This tagger is designed to be used from the command line. We update our XML files, constructed for each periodical-query pair by adding tagged versions of paragraphs, by using this POS Tagger. Tagged version of the XML file in Figure 3.1 is given in Figure 3.2

-<thenation.com>
 -<URL>
        http://www.thenation.com/article/easy-rider

        <TEXT> It is true that every night over their campfire Wyatt and Billy smoke pot, achieving thus a
        sudden irrational loquacity, accompanied by inane giggles. They pity friend George for his
        addiction to booze. But, so the script goes by these knowing men, when George is sober he is
        wide awake, when the other two are not high they are merely low, if indeed not half asleep. It may
        only be coincidence, and marijuana may yet be recognized as the cure for what ails us all, but the
        demeanor of Wyatt and Billy does not seem to prove the point. </TEXT>

        <TAGGED> It_PRP is_VBZ true_JJ that_IN every_DT night_NN over_IN their_PRP$
        campfire_NN Wyatt_NNP and_CC Billy_NNP smoke_NN pot_NN ,_, achieving_VBG thus_RB
        a_DT sudden_JJ irrational_JJ loquacity_NN ,_, accompanied_VBN by_IN inane_JJ giggles_NNS
        ._. They_PRP pity_NN friend_NN George_NNP for_IN his_PRP$ addiction_NN to_TO booze_NN
        ._. But_CC ,_, so_IN the_DT script_NN goes_VBZ by_IN these_DT knowing_VBG men_NNS ,_,
        when_WRB George_NNP is_VBZ sober_JJ he_PRP is_VBZ wide_JJ awake_RB ,_, when_WRB
        the_DT other_JJ two_CD are_VBP not_RB high_JJ they_PRP are_VBP merely_RB low_JJ ,_,
        if_IN indeed_RB not_RB half_JJ asleep_RB ._. It_PRP may_MD only_RB be_VB
        coincidence_NN ,_, and_CC marijuana_NN may_MD yet_RB be_VB recognized_VBN as_IN
        the_DT cure_NN for_IN what_WP ails_NNS us_PRP all_DT ,_, but_CC the_DT demeanor_NN
        of_IN Wyatt_NNP and_CC Billy_NNP does_VBZ not_RB seem_VB to_TO prove_VB the_DT
        point_NN ._. </TAGGED>

 </URL>
 -<URL>
        http://www.thenation.com/blog/169412/paul-ryan-doesnt-follow-ayn-rand-civil-liberties

        <TEXT>This, alas, is false. It is true that Ryan, like his mentor Jack Kemp, subscribes to Rand's
        heartless belief in refusing to aid the less fortunate. But Ryan does not share any of Rand's
        commitments to freedom, other than the freedom to be selfish. </TEXT>

        <TAGGED> This_DT ,_, alas_UH ,_, is_VBZ false_JJ ._. It_PRP is_VBZ true_JJ that_IN
        Ryan_NNP ,_, like_IN his_PRP$ mentor_NN Jack_NNP Kemp_NNP ,_, subscribes_VBZ to_TO
        Rand_NNP 's_POS heartless_JJ belief_NN in_IN refusing_VBG to_TO aid_VB the_DT less_JJR
        fortunate_JJ ._. But_CC Ryan_NNP does_VBZ not_RB share_VB any_DT of_IN Rand_NNP
        's_POS commitments_NNS to_TO freedom_NN ,_, other_JJ than_IN the_DT freedom_NN to_TO
        be_VB selfish_JJ ._. </TAGGED>

 </URL>

Figure 3.2: Part of XML File after running Stanford POS Tagger

As can be seen in Figure 3.2, this tagger assigns part of speech name abbreviations to each word; and it uses Penn Treebank tag set [39], provided in Table 3.5.

In this study, we deal with CC and IN tags, since we are trying to investigate

21

Table 3.5: Penn Treebank POS Tagset

1. CC	Coordinating conjunction	25. TO	*to*
2. CD	Cardinal number	26. UH	Interjection
3. DT	Determiner	27. VB	Verb, base form
4. EX	Existential *there*	28. VBD	Verb, past tense
5. FW	Foreign word	29. VBG	Verb, gerund/present participle
6. IN	Preposition/subordinating conjunction	30. VBN	Verb, past participle
7. JJ	Adjective	31. VBP	Verb, non-3rd ps. sing. present
8. JJR	Adjective, comparative	32. VBZ	Verb, 3rd ps. sing. present
9. JJS	Adjective, superlative	33. WDT	*wh*-determiner
10. LS	List item marker	34. WP	*wh*-pronoun
11. MD	Modal	35. WP$	Possessive *wh*-pronoun
12. NN	Noun, singular or mass	36. WRB	*wh*-adverb
13. NNS	Noun, plural	37. #	Pound sign
14. NNP	Proper noun, singular	38. $	Dollar sign
15. NNPS	Proper noun, plural	39. .	Sentence-final punctuation
16. PDT	Predeterminer	40. ,	Comma
17. POS	Possessive ending	41. :	Colon, semi-colon
18. PRP	Personal pronoun	42. (	Left bracket character
19. PP$	Possessive pronoun	43.)	Right bracket character
20. RB	Adverb	44. ''	Straight double quote
21. RBR	Adverb, comparative	45. '	Left open single quote
22. RBS	Adverb, superlative	46. "	Left open double quote
23. RP	Particle	47. '	Right close single quote
24. SYM	Symbol (math. or sci.)	48. "	Right close double quote

how the proposition following the phrase "it is true that" or "it's true that" is connected to its surrounding propositions.

3.3 Classification and Annotation

We deal with IN and CC tags after part of speech tagging, where CC represents coordinating conjunctions and IN represents prepositions and subordinating conjunctions. Note here that, in Penn Treebank POS Tagset, prepositions and subordinating conjunctions are combined into one set. However, among them, only subordinating conjunctions can give us useful information, namely how the

proposition, on which the predicate "true" used overtly, is connected to its co-text.

Thus, we form a list of words consisting of prepositions, which cannot be a subordinating conjunction; and we treat this list, which is provided in Table 3.6, as a stop-word list.

Table 3.6: List of Frequently Used Prepositions

aboard	below	for	opposite	times
about	beneath	from	out	to
above	beside	given	outside	toward
across	besides	in	over	towards
after	between	including	past	under
against	beyond	inside	per	underneath
along	by	into	plus	unlike
amid	concerning	like	regarding	until
among	considering	minus	round	up
around	despite	near	save	upon
as	down	next	since	versus
aside	during	of	than	via
at	except	off	that	with
before	excluding	on	through	within
behind	following	onto	till	without

After eliminating these words, we look at subordinating and coordinating conjunctions in the sentence right before, and right after the sentence containing the phrase (and of course, the sentence itself). Then, we determine an input token's syntactical pattern based on the most atomic conjunction's position with respect to the phrase "it is true that" or "it's true that".

For instance, following two examples from *The Nation*, have the syntactical pattern;

It is true that *(prop)*, **but** *(prop)*.[2]

---

[2]We abbreviate *(proposition)* as *(prop)*.

"I spoke to a military representative who said the theater was closed down because the courtroom wasn't full. It is true that Saturday the courtroom was not at spectator capacity, but that was the day of the public rally protesting the prosecution of Bradley Manning, so it's not surprising there were fewer people in the court."[3]

"It is true that, despite all that has happened, Gorbachev is now presiding over the most ambitious attempt yet to change the system from above, at least to begin with. But the climate is not quite what it used to be."[4]

The following example, again from *The Nation*, has the syntactical pattern;

While it is true that *(prop), (prop).*

"It is akin to teaching children about alcohol use, then instructing them on how to make mixed alcoholic drinks. While it is true that some children will wrongly choose to engage in sexual behavior before entering adulthood, our school districts should never promote illegal activity."[5]

We automatically classify all 7610 occurrences of the phrases "it is true that" and "it's true that", considering coordinating and subordinating conjunctions, with the help of the Stanford POS Tagger. However, annotation of these classified examples is needed for the sake of this analysis, due to following reasons;

Error rate of the POS Tagger

POS Tagger's error rate is 2.72% on the test set and 9.54% on unknown words [40].

---

[3]R. Reitman, "Access Blocked to Bradley Manning's Hearing," *The Nation*, December 22, 2011.

[4]D. Singer, "The Specter of Capitalism," *The Nation*, March 21, 2011.

[5]C. A. León, "It's Detention Time for Sex Education Teachers," *The Nation*, April 30, 2010.

Error rate caused by the stop-word list

We use a list consisting of frequently used prepositions. Whenever a rarely used preposition, which is not on the list, appears, this classifier treats it as a subordinating conjunction. More importantly, there exist some frequently used words, which can be used as a preposition or as a subordinating conjunction. Consider the word "but". With this methodology, we treat each occurrence of this word as a conjunction but it may be used as a preposition.

Computational difficulty in classification

There exist some abnormalities, this classifier could not handle. Consider the following examples:

"It is true that Saddam Hussein had a history of pursuing and using weapons of mass destruction. It is true that he systematically concealed those programs, and blocked the work of UN weapons inspectors. It is true that many nations believed that Saddam had weapons of mass destruction. But much of the intelligence turned out to be wrong. And as your president, I am responsible for the decision to go into Iraq."[6]

"'It is true that the Indians are trying to marry our daughters.' said one exception, Edouard Abida, 59, president of the Pondicherry French Veterans Assn. and the father of three daughters. 'But I would never do that. I would never betray la France.'"[7]

Both examples should be classified as an instance of the syntactical pattern;

$$\text{It is true that } (prop), \textbf{but } (prop).$$

However, our classifier, cannot handle these abnormalities; and it is much more reasonable to annotate classified examples, rather than defining new rules for each type of abnormality, for the sake of this analysis.

---

[6]The Associated Press, "Text of President Bush's Speech on the Iraq War," *The USA Today*, December 18, 2005.

[7]R. Tempest, "Affluence, Corruption : Pondicherry: India French Connection," *The LA Times*, March 23, 1987.

All in all, we use classification results as a guidance; and annotate all occurrences of phrases "it is true that" and "it's true that", for each periodical. We encounter 34 different syntactical patterns as provided in Table 3.7. We group some of the syntactical patterns together, in this table. The main reason is that, even though there exist some nuances, use of conjunctions in which are similar. We take "it is " and "it's" to be equivalent, thus in Table 3.7 the pattern,

It is true that *(prop)*, **but** *(prop)*.

embraces the syntactical pattern,

It's true that *(prop)*, **but** *(prop)*.

Table 3.7: List of Syntactical Patterns

It is true that *(prop)*.
It is true that *(prop)*, **but** *(prop)*.
(Prop), **but** it is true that *(prop)*.
It is true that *(prop)*, **however** *(prop)*.
(Prop), **however** it is true that *(prop)*.
It is true that *(prop)*, **yet** *(prop)*.
(Prop), **yet** it is true that *(prop)*.
It is true that *(prop)*, **unfortunately** *(prop)*.
(Prop), **unfortunately** it is true that *(prop)*.
It is true that *(prop)*, **nonetheless** *(prop)*.
(Prop), **nonetheless** it is true that *(prop)*.
It is true that *(prop)*, **nevertheless** *(prop)*.
(Prop), **nevertheless** it is true that *(prop)*.
While it is true that *(prop)*, *(prop)*.
While *(prop)*, it is true that *(prop)*.
It is true that **while** *(prop)*, *(prop)*.
Whilst it is true that *(prop)*, *(prop)*.
Although it is true that *(prop)*, *(prop)*.
Although *(prop)*, it is true that *(prop)*.
Though it is true that *(prop)*, *(prop)*.
Though *(prop)*, it is true that *(prop)*.
If it is true that *(prop)*, then *(prop)*.
It is true that **if** *(prop)*, then *(prop)*.
If *(prop)*, then it is true that *(prop)*.
...(to ask, wonder) **if** it is true that *(prop)*.
...(to ask, wonder) **whether** it is true that *(prop)*.
It is true that *(prop)*, **so** *(prop)*.
(Prop), **so** it is true that *(prop)*.
It is true that *(prop)*, **thus** *(prop)*.
It is true that *(prop)*, **therefore** *(prop)*.
It is true that *(prop)*, **because** *(prop)*.
(Prop), **because** it is true that *(prop)*.
(Prop), **since** it is true that *(prop)*.
It is true that *(prop)*, **unless** *(prop)*.

Chapter 4

Results

Occurrences of each syntactical pattern, for all periodicals, for the queries "it is true that" and "it's true that", are given in Table 4.1 through Table 4.10. Finally, overall occurrences are given in Table 4.11.

Figure 4.1: Logo: The Boston Globe

Table 4.1: Syntactical Patterns: The Boston Globe

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	11	27	**38**
It is true that *(prop)*, **but** *(prop)*.	10	34	**44**
(Prop), **but** it is true that *(prop)*.	4	0	**4**
It is true that *(prop)*, **yet** *(prop)*.	0	2	**2**
While it is true that *(prop)*, *(prop)*.	6	11	**17**
Although it is true that *(prop)*, *(prop)*.	1	0	**1**
If it is true that *(prop)*, then *(prop)*.	1	1	**2**
It is true that **if** *(prop)*, then *(prop)*.	0	1	**1**
GRAND TOTAL	**33**	**76**	**109**

Figure 4.2: Logo: The Washington Examiner

Table 4.2: Syntactical Patterns: The Washington Examiner

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	14	18	**32**
It is true that *(prop)*, **but** *(prop)*.	18	52	**70**
It is true that *(prop)*, **however** *(prop)*.	0	5	**5**
It is true that *(prop)*, **yet** *(prop)*.	1	3	**4**
(Prop), **yet** it is true that *(prop)*.	1	0	**1**
While it is true that *(prop)*, *(prop)*.	5	5	**10**
Although it is true that *(prop)*, *(prop)*.	2	0	**2**
Though it is true that *(prop)*, *(prop)*.	1	4	**5**
If it is true that *(prop)*, then *(prop)*.	0	2	**2**
...(to ask, wonder) **if** it is true that *(prop)*.	0	1	**1**
GRAND TOTAL	**42**	**90**	**132**

Figure 4.3: Logo: The New York Post

Table 4.3: Syntactical Patterns: The New York Post

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	12	23	**35**
It is true that *(prop)*, **but** *(prop)*.	13	54	**67**
(Prop), **but** it is true that *(prop)*.	2	2	**4**
It is true that *(prop)*, **however** *(prop)*.	1	0	**1**
It is true that *(prop)*, **yet** *(prop)*.	0	1	**1**
It is true that *(prop)*, **nevertheless** *(prop)*.	0	1	**1**
While it is true that *(prop)*, *(prop)*.	4	12	**16**
Although it is true that *(prop)*, *(prop)*.	1	0	**1**
Though it is true that *(prop)*, *(prop)*.	1	4	**5**
If it is true that *(prop)*, then *(prop)*.	6	9	**15**
...(to ask, wonder) **if** it is true that *(prop)*.	0	3	**3**
GRAND TOTAL	**40**	**109**	**149**

Figure 4.4: Logo: The Nation

Table 4.4: Syntactical Patterns: The Nation

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	48	71	**119**
It is true that *(prop)*, **but** *(prop)*.	55	76	**131**
(Prop), **but** it is true that *(prop)*.	9	5	**14**
It is true that *(prop)*, **however** *(prop)*.	8	7	**15**
(Prop), **however** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **yet** *(prop)*.	6	2	**8**
It is true that *(prop)*, **nonetheless** *(prop)*.	1	0	**1**
While it is true that *(prop)*, *(prop)*.	21	18	**39**
Although it is true that *(prop)*, *(prop)*.	5	1	**6**
Though it is true that *(prop)*, *(prop)*.	0	1	**1**
If it is true that *(prop)*, then *(prop)*.	8	12	**20**
It is true that **if** *(prop)*, then *(prop)*.	0	1	**1**
It is true that *(prop)*, **so** *(prop)*.	1	1	**2**
It is true that *(prop)*, **therefore** *(prop)*.	1	0	**1**
GRAND TOTAL	**164**	**195**	**359**

Figure 4.5: Logo: The USA Today

Table 4.5: Syntactical Patterns: The USA Today

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	66	142	**208**
It is true that *(prop)*, **but** *(prop)*.	57	150	**207**
(Prop), **but** it is true that *(prop)*.	17	19	**36**
It is true that *(prop)*, **however** *(prop)*.	8	1	**9**
It is true that *(prop)*, **yet** *(prop)*.	2	2	**4**
(Prop), **yet** it is true that *(prop)*.	2	0	**2**
It is true that *(prop)*, **nonetheless** *(prop)*.	1	0	**1**
While it is true that *(prop)*, *(prop)*.	40	52	**92**
It is true that **while** *(prop)*, *(prop)*.	0	1	**1**
Although it is true that *(prop)*, *(prop)*.	5	9	**14**
Though it is true that *(prop)*, *(prop)*.	1	8	**9**
If it is true that *(prop)*, then *(prop)*.	7	28	**35**
It is true that **if** *(prop)*, then *(prop)*.	0	2	**2**
...(to ask, wonder) **if** it is true that *(prop)*.	3	4	**7**
...(to ask, wonder) **whether** it is true that *(prop)*.	2	3	**5**
It is true that *(prop)*, **so** *(prop)*.	3	0	**3**
(Prop), **so** it is true that *(prop)*.	1	0	**1**
GRAND TOTAL	**215**	**421**	**636**

San Francisco Chronicle

Figure 4.6: Logo: The San Francisco Chronicle

Table 4.6: Syntactical Patterns: The San Francisco Chronicle

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	82	102	**184**
It is true that *(prop)*, **but** *(prop)*.	122	191	**313**
(Prop), **but** it is true that *(prop)*.	13	11	**24**
It is true that *(prop)*, **however** *(prop)*.	11	8	**19**
(Prop), **however** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **yet** *(prop)*.	7	2	**9**
(Prop), **yet** it is true that *(prop)*.	0	1	**1**
It is true that *(prop)*, **nevertheless** *(prop)*.	1	2	**3**
While it is true that *(prop)*, *(prop)*.	41	75	**116**
Although it is true that *(prop)*, *(prop)*.	7	11	**18**
Though it is true that *(prop)*, *(prop)*.	4	4	**8**
If it is true that *(prop)*, then *(prop)*.	11	22	**33**
It is true that **if** *(prop)*, then *(prop)*.	1	3	**4**
...(to ask, wonder) **if** it is true that *(prop)*.	0	6	**6**
...(to ask, wonder) **whether** it is true that *(prop)*.	0	1	**1**
GRAND TOTAL	**301**	**439**	**740**

Figure 4.7: Logo: The Chicago Tribune

Table 4.7: Syntactical Patterns: The Chicago Tribune

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	98	149	**247**
It is true that *(prop)*, **but** *(prop)*.	83	169	**252**
(Prop), **but** it is true that *(prop)*.	13	8	**21**
It is true that *(prop)*, **however** *(prop)*.	13	15	**28**
(Prop), **however** it is true that *(prop)*.	3	0	**3**
It is true that *(prop)*, **yet** *(prop)*.	2	0	**2**
It is true that *(prop)*, **nonetheless** *(prop)*.	0	2	**2**
(Prop), **nevertheless** it is true that *(prop)*.	0	1	**1**
While it is true that *(prop)*, *(prop)*.	65	54	**119**
Although it is true that *(prop)*, *(prop)*.	7	7	**14**
Though it is true that *(prop)*, *(prop)*.	5	9	**14**
If it is true that *(prop)*, then *(prop)*.	23	29	**52**
It is true that **if** *(prop)*, then *(prop)*.	6	2	**8**
...(to ask, wonder) **if** it is true that *(prop)*.	4	4	**8**
GRAND TOTAL	**322**	**449**	**771**

Los Angeles Times

Figure 4.8: Logo: The Los Angeles Times

Table 4.8: Syntactical Patterns: The Los Angeles Times

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	202	240	**442**
It is true that *(prop)*, **but** *(prop)*.	174	276	**450**
(Prop), **but** it is true that *(prop)*.	28	21	**49**
It is true that *(prop)*, **however** *(prop)*.	55	16	**71**
(Prop), **however** it is true that *(prop)*.	2	0	**2**
It is true that *(prop)*, **yet** *(prop)*.	4	3	**7**
(Prop), **yet** it is true that *(prop)*.	0	4	**4**
It is true that *(prop)*, **unfortunately** *(prop)*.	3	1	**4**
(Prop), **unfortunately** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **nonetheless** *(prop)*.	2	0	**2**
It is true that *(prop)*, **nevertheless** *(prop)*.	2	2	**4**
While it is true that *(prop)*, *(prop)*.	133	58	**191**
It is true that **while** *(prop)*, *(prop)*.	0	1	**1**
Although it is true that *(prop)*, *(prop)*.	29	24	**53**
Though it is true that *(prop)*, *(prop)*.	12	25	**37**
If it is true that *(prop)*, then *(prop)*.	27	50	**77**
It is true that **if** *(prop)*, then *(prop)*.	1	1	**2**
If *(prop)*, then it is true that *(prop)*.	0	1	**1**
...(to ask, wonder) **if** it is true that *(prop)*.	4	11	**15**
...(to ask, wonder) **whether** it is true that *(prop)*.	1	5	**6**
It is true that *(prop)*, **so** *(prop)*.	0	1	**1**
(Prop), **so** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **thus** *(prop)*.	1	0	**1**
GRAND TOTAL	**682**	**740**	**1422**

Figure 4.9: Logo: The New York Times

Table 4.9: Syntactical Patterns: The New York Times

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	239	250	**489**
It is true that *(prop)*, **but** *(prop)*.	206	405	**611**
(Prop), **but** it is true that *(prop)*.	35	29	**64**
It is true that *(prop)*, **however** *(prop)*.	22	30	**52**
(Prop), **however** it is true that *(prop)*.	5	1	**6**
It is true that *(prop)*, **yet** *(prop)*.	4	11	**15**
(Prop), **yet** it is true that *(prop)*.	2	1	**3**
(Prop), **unfortunately** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **nonetheless** *(prop)*.	0	1	**1**
While it is true that *(prop)*, *(prop)*.	115	84	**199**
While *(prop)*, it is true that *(prop)*.	1	2	**3**
It is true that **while** *(prop)*, *(prop)*.	1	0	**1**
Although it is true that *(prop)*, *(prop)*.	16	5	**21**
Although *(prop)*, it is true that *(prop)*.	2	1	**3**
Though it is true that *(prop)*, *(prop)*.	3	2	**5**
Though *(prop)*, it is true that *(prop)*.	1	0	**1**
If it is true that *(prop)*, then *(prop)*.	17	16	**33**
It is true that **if** *(prop)*, then *(prop)*.	0	7	**7**
If *(prop)*, then it is true that *(prop)*.	0	8	**8**
...(to ask, wonder) **if** it is true that *(prop)*.	1	0	**1**
...(to ask, wonder) **whether** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **so** *(prop)*.	7	5	**12**
(Prop), **so** it is true that *(prop)*.	0	3	**3**
It is true that *(prop)*, **because** *(prop)*.	0	4	**4**
(Prop), **because** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **unless** *(prop)*.	0	2	**2**
GRAND TOTAL	**680**	**867**	**1547**

The Washington Post

Figure 4.10: Logo: The Washington Post

Table 4.10: Syntactical Patterns: The Washington Post

Syntactical Pattern / Query	"it is true that"	"it's true that"	TOTAL
It is true that *(prop)*.	275	306	**581**
It is true that *(prop)*, **but** *(prop)*.	266	397	**663**
(Prop), **but** it is true that *(prop)*.	25	20	**45**
It is true that *(prop)*, **however** *(prop)*.	30	16	**46**
(Prop), **however** it is true that *(prop)*.	9	0	**9**
It is true that *(prop)*, **yet** *(prop)*.	7	5	**12**
It is true that *(prop)*, **unfortunately** *(prop)*.	0	1	**1**
It is true that *(prop)*, **nonetheless** *(prop)*.	3	0	**3**
(Prop), **nonetheless** it is true that *(prop)*.	0	1	**1**
It is true that *(prop)*, **nevertheless** *(prop)*.	2	0	**2**
(Prop), **nevertheless** it is true that *(prop)*.	3	0	**3**
While it is true that *(prop)*, *(prop)*.	125	96	**221**
While *(prop)*, it is true that *(prop)*.	3	0	**3**
It is true that **while** *(prop)*, *(prop)*.	1	1	**2**
Whilst it is true that *(prop)*, *(prop)*.	1	0	**1**
Although it is true that *(prop)*, *(prop)*.	10	13	**23**
Though it is true that *(prop)*, *(prop)*.	3	3	**6**
If it is true that *(prop)*, then *(prop)*.	47	25	**72**
It is true that **if** *(prop)*, then *(prop)*.	5	5	**10**
If *(prop)*, then it is true that *(prop)*.	2	2	**4**
...(to ask, wonder) **if** it is true that *(prop)*.	12	4	**16**
...(to ask, wonder) **whether** it is true that *(prop)*.	0	6	**6**
It is true that *(prop)*, **so** *(prop)*.	2	2	**4**
(Prop), **so** it is true that *(prop)*.	1	0	**1**
It is true that *(prop)*, **thus** *(prop)*.	1	0	**1**
It is true that *(prop)*, **because** *(prop)*.	0	1	**1**
(Prop), **because** it is true that *(prop)*.	3	1	**4**
(Prop), **since** it is true that *(prop)*.	0	3	**3**
It is true that *(prop)*, **unless** *(prop)*.	0	1	**1**
GRAND TOTAL	**836**	**909**	**1745**

Table 4.11: Syntactical Patterns: Overall Examples

Syntactical Pattern	TOTAL
It is true that *(prop)*.	2375
It is true that *(prop)*, **but** *(prop)*.	2808
(Prop), **but** it is true that *(prop)*.	261
It is true that *(prop)*, **however** *(prop)*.	246
(Prop), **however** it is true that *(prop)*.	22
It is true that *(prop)*, **yet** *(prop)*.	64
(Prop), **yet** it is true that *(prop)*.	11
It is true that *(prop)*, **unfortunately** *(prop)*.	5
(Prop), **unfortunately** it is true that *(prop)*.	2
It is true that *(prop)*, **nonetheless** *(prop)*.	10
(Prop), **nonetheless** it is true that *(prop)*.	1
It is true that *(prop)*, **nevertheless** *(prop)*.	10
(Prop), **nevertheless** it is true that *(prop)*.	4
While it is true that *(prop)*, *(prop)*.	1020
While *(prop)*, it is true that *(prop)*.	6
It is true that **while** *(prop)*, *(prop)*.	5
Whilst it is true that *(prop)*, *(prop)*.	1
Although it is true that *(prop)*, *(prop)*.	153
Although *(prop)*, it is true that *(prop)*.	3
Though it is true that *(prop)*, *(prop)*.	90
Though *(prop)*, it is true that *(prop)*.	1
If it is true that *(prop)*, then *(prop)*.	341
It is true that **if** *(prop)*, then *(prop)*.	35
If *(prop)*, then it is true that *(prop)*.	13
...(to ask, wonder) **if** it is true that *(prop)*.	57
...(to ask, wonder) **whether** it is true that *(prop)*.	19
It is true that *(prop)*, **so** *(prop)*.	22
(Prop), **so** it is true that *(prop)*.	6
It is true that *(prop)*, **thus** *(prop)*.	2
It is true that *(prop)*, **therefore** *(prop)*.	1
It is true that *(prop)*, **because** *(prop)*.	5
(Prop), **because** it is true that *(prop)*.	5
(Prop), **since** it is true that *(prop)*.	3
It is true that *(prop)*, **unless** *(prop)*.	3
GRAND TOTAL	**7610**

Chapter 5

Discussion

When we look at the results, given in Chapter 4, we can roughly say that when the number of overt uses of the predicate "true" increases in a newspaper or a magazine the number of different patterns observed, with respect to subordinating and coordinating conjunctions' positions, also increases.

Another observation is that hypothetical examples, employed by deflationists in their work, are typically in the syntactical pattern:

It is true that *(prop)*.

However, only a portion of ordinary language examples observed, are in this syntactical pattern. The number of ordinary language examples which are in this pattern, compared to the number of examples in other patterns (namely patterns including a conjunction) are given in Figure 5.1, for each periodical.
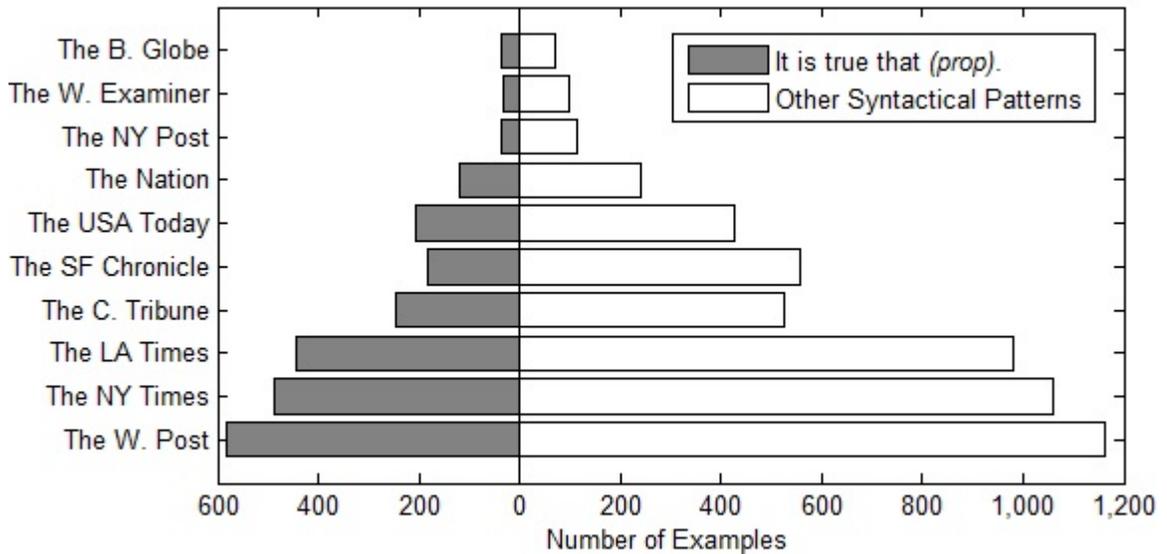
Figure 5.1: Number of 'Basic' Pattern Occurrences for Each Periodical

The percentage of examples in the 'basic' pattern, namely the pattern without any conjunction, over all examples in a periodical, takes its minimum value as 23.5% in *The New York Post*; and maximum value as 34.9% in *The Boston Globe.*

On the other hand, it is worthy of notice that even though there exist 34 different syntactical patterns; most of the occurrences of the phrase are instances of following three patterns, in each periodical;

It is true that *(prop).*
It is true that *(prop)*, **but** *(prop).*
While it is true that *(prop)*, *(prop).*

These three patterns are the top three patterns, for each periodical; when the number of instances covered is considered. The total number of instances covered by these three patterns, compared to the total number of examples are given in Figure 5.2, for each periodical.
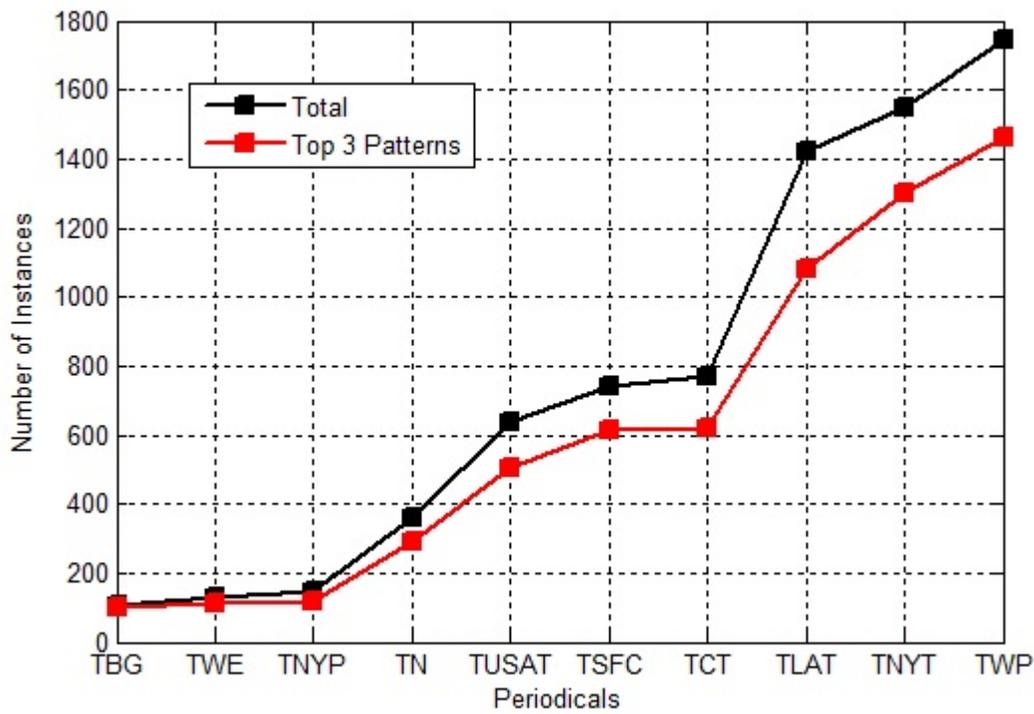
Figure 5.2: Number of Instances in Top Three Patterns for Each Periodical

When all 7610 examples, in 10 periodicals, are considered; the syntactical pattern, which contains the most number of instances, is not the following pattern:

It is true that *(prop)*.

but the pattern:

It is true that *(prop)*, **but** *(prop)*.

In 69% of all examples, the phrase "it is true that" or "it's true that" is used with a subordinating and coordinating conjunction. A pie graph is plotted using syntactical patterns whose percentage are at least 1% in all 7610 examples, in Figure 5.1. Note here that, this graph has slices for 8 patterns; meaning that 26 out of 34 patterns are used in less than 1% of the instances.
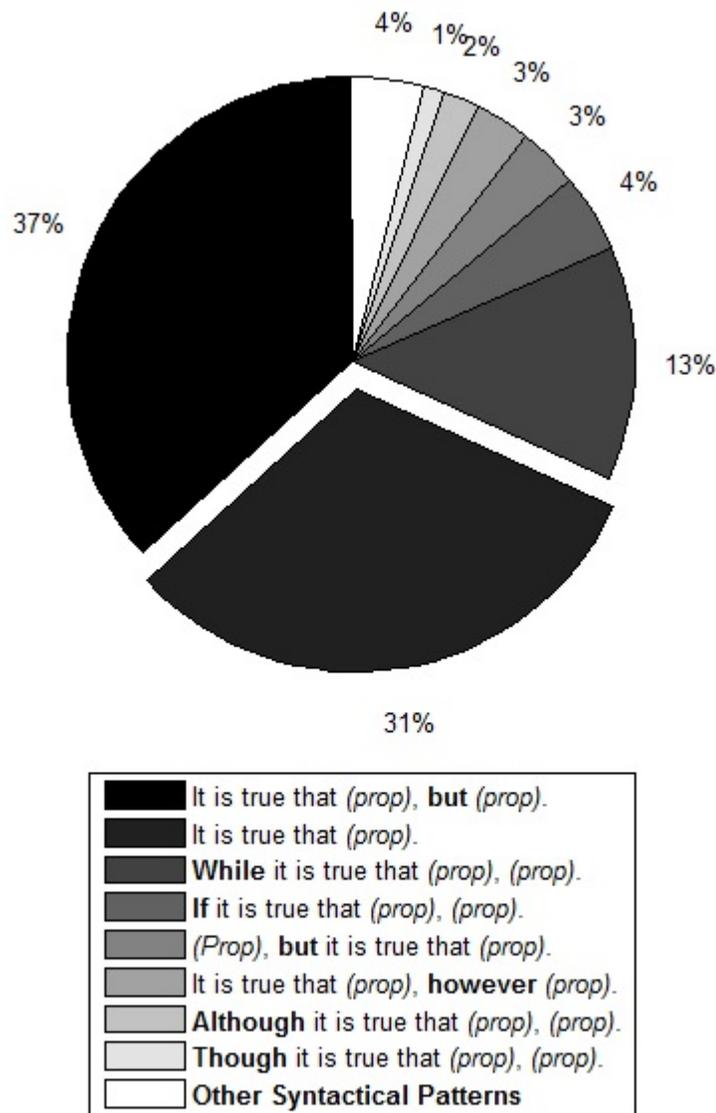
Figure 5.3: Percentages of Number of Instances in Syntactical Patterns

Actually, the situation is much more dramatic than what is presented here. We examine and classify with respect to subordinating and coordinating conjunctions, which consist of only one word. However, there exist many instances, where propositions are connected via conjunctions, consisting of more than one word, like the following examples. Note that, these conjunctions are underlined.

"It is true that good kung fu fighting may not look good on camera. On the other hand, you can have a good actor who does not have real fighting skills but can make it up with a good feel."[1]

"It's true that Mays was an inspiration to most new entrepreneurs out there at one point or another. In fact, he was the perfect embodiment of the American dream, from his humble beginnings on the Atlantic City Boardwalk to becoming a national icon with his own television show."[2]

"It's true that I do not hear conservatives criticizing his decision to run. On the contrary, many conservatives see it as brave and as proof that he is 'walking the walk' on the abortion issue and beyond."[3]

"It's true that conventional wars are easier to score. By contrast, insurgencies are often won and lost in the hearts and minds of civilians, where it's harder to see."[4]

"Certainly it's true that Greece's level of corruption, while debilitating, has been nowhere near the levels of Russia or Iraq, according to Transparency International. It's also true that the Papandreou administration has made mistakes, and that has understandably fueled some of the protesters' complaints."[5]

Note that, according to the classification we make, all examples above are in the pattern:

$$\text{It is true that } (prop).$$

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[1]L. Munoz, "Women on the Verge of a Breakthrough," *The Los Angeles Times*, November 19, 2000.

[2]LA Times Blog, "But Wait!! There's (No) More! Billy Mays Dead," *The Los Angeles Times*, June 28, 2009.

[3]M. Henneberger, "Live Questions and Answers," *The Washington Post*, December 5, 2011.

[4]J. Michaels, "Fog of War: What Are We Missing?," *The USA Today*, August 11, 2010.

[5]S. Hill, "What's Wrong -and Right- with Greece," *The Nation*, July 20, 2011.

When it comes to philosophical aspects of our findings, in this analysis; it would be appropriate to start by referring to what Strawson says in his paper, "Truth" [19]. In this paper, Strawson suggests that the phrase "is true" can *sometimes* be replaced, of course with necessary verbal changes, without any important change in the meaning, by some phrase including a *performatory* verb in Austin's sense [20], such as "I confirm it." Strawson writes the following, while mentioning on these non-descriptive, *performatory* uses of the predicate "true";

> "The word has other, equally non-descriptive, uses. A familiar one is its use in sentences which begin with the phrase 'It's true that', followed by a clause, followed by the word 'but', followed by another clause. It has been pointed to me that the words 'It's true that... but...' could, in these sentences, be replaced by the word 'Although'; or, alternatively, by the words 'I concede that... but...' This use of the phrase, then, is concessive."[19]

Strawson does not describe any rules or principles but merely suggests that when "It's true that... but..." occurs, it *could* be replaced by the words "I concede that... but..." Even though he uses a modest style in making this assertion, what he is pointing at is important. The existence of the predicate "true" *may* make an emphasis, perform an action which is in the same manner with the verb "concede", in some occurrences of the phrase "it is true that", used together with the conjunction "but", or not.

We cannot describe rules, which determine the performatory role of the predicate "true" based on the syntactical pattern where it is used. It is necessary and significant to recognize that pragmatics cannot be characterized in terms of rules, which are strict and definitive; but are better be described in terms of principles. However, we don't try to describe any principles, either. We provide a set of performatory verbs in Table 5.1, definitions of which, from [41] and [42], are provided in Appendix A. Note that some of the verbs are grouped together; while there exist nuances between them they all seem to perform similar actions.[6]

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[6]This list is not, and does not need to be a complete list of performatory verbs, which somehow relate to the notion of truth.

Table 5.1: Performatory Verbs

confirm affirm	verify	concede admit acknowledge	confess	agree	accept

Then we present ordinary language examples, where the use of the phrases "it is true that" or "it's true that" makes an emphasis, performs an action, in the same manner with a performatory verb provided in the Table 5.1.

"confirm, affirm"

"'<u>It's true that</u> I come from a very poor family, a family of six kids, and I'm the oldest, so we had to work hard to make a living,' he said. 'That's how I started caddying, because my parents couldn't afford to take me to school, but through caddying I managed to move a little step forward. I caddied at Sun City for many years. I'm still there now, and I always go there.'"[7]

"verify"

"Freestyle skiing, snowboarding and BMX were added to the Olympic program not so much to appeal to American TV viewers, as to attract the youth audience. Having said that, <u>it is true that</u> the sports and events added to the Winter Olympics since 1992 have been heavily skewed toward North America. Here is a chart from the 2006 Turin Winter Olympics that tells how many total medals each of the leading winter powers won and how many of them came in the new events."[8]

"concede, admit, acknowledge"

"<u>It is true that</u> black people were once used as slaves, but nowadays the world's view has changed dramatically. It is safe to say that more Americans accept

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[7]C. Clarey, "Representing a Nation without Inserting Politics," *The New York Times*, July 17, 2010.

[8]D. Wallechinsky, "David Wallechinsky Gives His Answers to Readers' Questions (Part 1)", *The New York Times*, June 17, 2008.

diversity in this age and time, and that the once negative connotations of race have slowly turned positive. Obama represents this new acceptance of diversity in American culture, and perhaps, people will be more open about race in the future because of him."[9]

"confess"

"Mr. Amis shot back that he didn't blow smoke on his dying friend - Christopher Hitchens did - but that he was guilty of the other charge. '<u>It is true that</u> I am a useless godfather.'"[10]

"agree"

"<u>It is true that</u> cloning research offers hope, however speculative, for understanding and treating disease. Yet we should not deceive ourselves about the value and necessity of such research: there is virtually no precedent in animal work that demonstrates the unique benefits of creating and exploiting cloned embryos; we have only just begun to understand existing embryonic stem cells; and promising results with adult stem cells, if confirmed, may obviate altogether the putative need for cloned stem cells."[11]

"accept"

"Today, the Eddie Haskells rule. An eager smile or a front-row seat can mask, or outweigh, a failure to master the material. <u>It's true that</u> the world rewards good behavior - but that represents only a tiny fraction of the rewards that go to the innovators, the thinkers, the doers."[12]

---

[9]Comment, "Why Is Race Hard to Talk About?," *The New York Times*, July 27, 2010.

[10]B. Feiler, "The Godparent Trap," *The New York Times*, May 28, 2010.

[11]L. R. Kass, "How One Clone Leads to Another," *The New York Times*, January 24, 2003.

[12]To The Editor, "A Diligent Student, or a Smart One?," *The New York Times*, December 4, 2010.

However, in the following ordinary language example, the phrase "it's true that" doesn't seem to perform any action and may be seen as redundant;

> "It's true that i can't be found anywhere on the number line. In that respect it's much stranger than zero, negative numbers, fractions or even irrational numbers, all of which - weird as they are - still have their place in line."[13]

We provide additional ordinary language examples in Appendix B.

The act of judging that something is the case plays a central part in our daily lives. Frege introduced a sign to mark this act. The sign he used was "|" (called the judgment stroke). Frege also used "-" (called the content stroke) as a sign which turns what follows it into a judgeable content. Normally, one combines "|" and "-" to obtain "|-" (called the turnstile). When followed by a sentence, the turnstile turns the sentence into an assertion. Frege's vital observation was that the sentence 'the thought that p is true' and 'p' make exactly the same truth-claim, provided that they are uttered with assertoric force (as indicated by the turnstile). In other words, Frege saw that the essential truth claim is not made by the predicate 'true'; rather, it is rendered by the act of asserting. [43] The deflationary theory of truth, or specifically the equivalence schema, fails to capture this phenomena about the notion of truth.

One might argue that, the deflationary theorists' argument is purely semantic, while what we propose is purely pragmatic. Despite the early antagonism between ideal language philosophy and ordinary language philosophy, semantics (the formal study of meaning and truth conditions) and pragmatics (the study of language in use) are now conceived of as *complementary* disciplines, shedding light on different aspects of language; [44] and in this thesis, we shed light on a different aspect of the predicate "true".

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[13]S. Strogatz, "Finding Your Roots," *The New York Times*, March 7, 2010.

Chapter 6

Conclusion

The deflationary theory of truth proposes that the notion of truth does not have a nature of the kind which philosophers might find out about and develop theories of. In other words, this theory holds the view that there is no property of truth at all, and appearances of the predicate "true" in our sentences are redundant. The examples deflationary theorists use in exemplifying the theory are simplistic, yet the theory has been one of the most influential theories of truth, since the 1970s.

We object this theory, by computationally collecting ordinary language examples, in which the predicate "true" used overtly, from 10 popular periodicals' archives, published in the United States. These are linguistically reliable textual sources, when the natural language of English is considered. We use Bing Search Application Programming Interface in order to collect the occurrences of phrases "it is true that" and "it's true that". Then, we classify these examples, with the help of Stanford Natural Language Processing Group's Part of Speech Tagger; with respect to their syntactical patterns. These patterns are determined by the positions of coordinating and subordinating conjunctions exist in the example, with respect to the position of the phrase. Last but not least, we annotate these examples by using the classification we make as a guide.

All in all, we argue that in some occurrences of overt uses of the predicate

"true", existence of this predicate makes an emphasis, performs an action which is in the same manner as a performatory verb, in Austin's sense, does and the deflationary theory of truth cannot cover this phenomena.

In this research, there exist limitations for future work. Building an automatic classifier in this task, the task of determining the act the phrase "it is true that" performs, is not easy with the state of the art natural language processing or machine learning techniques. We deal with the pragmatic information which seems to be on a higher level than the semantic or the syntactic information.

A hardcore philosopher may argue that one might just present hypothetical examples of these performatory occurrences which removes the necessity of an empirical investigation. On the other hand, there exist some uses of the predicate which have not been mentioned in the contemporary literature on truth, like its use in the form of "if it is true that", but detected with this empirical investigation.

To conclude, we oppose the deflationary theory of truth not on philosophical grounds, but on empirical grounds, by providing counter examples which are not hypothetical. This thesis is novel in the sense of its empirical approach towards the contemporary literature on truth.

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Appendix A

Relevant Definitions of Performatory Verbs in Table 5.1

confirm [41]
1. To support or establish the certainty or validity of; verify.

2. To make firmer; strengthen.

3. To make valid or binding by a formal or legal act; ratify.

confirm [42]
1. to prove to be true or valid; corroborate; verify

2. to assert for a second or further time, so as to make more definite

3. to strengthen or make more firm

4. to make valid by a formal act or agreement; ratify

affirm [41]

1. To declare positively or firmly; maintain to be true.

2. To support or uphold the validity of; confirm.

Law

To declare solemnly and formally but not under oath.

affirm [42]

1. to declare to be true; assert positively

2. to uphold, confirm, or ratify

3. (Law) to make an affirmation

verify [41]

1. To prove the truth of by presentation of evidence or testimony; substantiate.

2. To determine or test the truth or accuracy of, as by comparison, investigation, or reference.

3. *Law*

a. To affirm formally under oath.

b. To append a verification to (a pleading); conclude with a verification.

verify [42]

1. to prove to be true; confirm; substantiate

2. to check or determine the correctness or truth of by investigation, reference, etc.

3. (Law) to add a verification to (a pleading); substantiate or confirm (an oath)

concede [41]

1. To acknowledge, often reluctantly, as being true, just, or proper; admit.

2. To yield or grant (a privilege or right, for example).

3. To make concession, yield.

concede [42]

1. to admit or acknowledge (something) as true or correct

2. to yield or allow (something such as right)

3. (Government, Politics and Diplomacy) to admit as certain in outcome

admit [41]

1. To grant to be real, valid, or true; acknowledge.

2. To grant as true or valid, as for the sake of argument, concede.

admit [42]

1. to confess or acknowledge (a crime, mistake etc.)

2. to concede (the truth or validity of something)

acknowledge [41]

1.

a. To admit existence, reality, or truth of.

b. To recognize as being valid or having force or power.

2.

a. To express recognition of.

b. To express thanks or gratitude for.

3. To report the receipt of.

4. *Law* To accept or certify as legally binding.

acknowledge [42]

1. to recognize or admit the existence, truth, or reality of

2. to indicate recognition or awareness of, as by a greeting, glance, etc.

3. to express appreciation or thanks for

4. to make the receipt of known to the sender

5. to recognize, especially in legal form, the authority, rights, or claims of

confess [41]

1. To disclose (something damaging or inconvenient to oneself); admit.

2. To acknowledge belief or faith in; profess.

confess [42]

1. to make an acknowledgement or admission (of faults, misdeeds, crimes, etc.)

2. to admit or grant to be true; concede

agree [41]

1. To grant consent; accede.

2. To come into or be in accord, as of opinion.

3. To come to an understanding or to terms.

4. To be compatible or consistent; correspond.

agree [42]

1. to be of the same opinion; concur

2. to give assent; consent

3. to come to terms (about); arrive at a settlement (on)

4. to be similar or consistent; harmonize; correspond

5. to concede or grant; admit

accept [41]

1.

a. To answer affirmatively.

b. To agree to take (a duty or responsibility).

2.

a. To regard as proper, usual, or right.

b. To regard as true; believe in.

c. To understand as having a specific meaning.

3. To be able to hold (something applied or inserted).

accept [42]

1. to give an affirmative reply to

2. to consider as true or believe in (a philosophy, theory, etc.)

3. to be willing to grant or believe

4. to receive as adequate, satisfactory or valid

5. to receive, take, or hold (something applied, inserted etc.)

Appendix B

Additional Ordinary Language Examples

Performatory Verbs: "confirm, affirm"

"<u>It is true that</u> breast cancer treatment has become too complex for the current models of care. The multiple specialties required make it impossible for a single individual, no matter how well trained, to deliver that care."[1]

Performatory Verb: "verify"

"On another note, the Giants will face the Seahawks after their bye week. I think too much is made about teams coming off bye weeks, but <u>it is true that</u> teams have an advantage. Since the 1990 season, teams with an extra week to rest, heal, and prepare win 53 percent of their games. It's a small but real edge, about half as strong as home-field advantage."[2]

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[1]To The Editor, "Who Should Treat Breast Cancer?," *The New York Times*, October 17, 2009.

[2]B. Burke, "Week 9 N.F.L. Game Probabilities, and the Effect of Bye Weeks," *The New*

Performatory Verbs: "concede, admit, acknowledge"

"Now, before you start your poison pens: this note is not intended to be a big Apple advertisement. <u>It's true that</u> Mac OS X is tougher to crack than Windows XP, but this advantage may not have a lot of life left. I believe that Windows Vista will be about as secure as Mac OS X, because Microsoft has closed most or all of the weaknesses I've just described."[3]

Performatory Verb: "confess"

"In Monday's installment, Paul claimed that his comments about the architect's high fees made me cry. Did not.
<u>It's true that</u> I was crying (while driving - is there a law against that?) but Paul's stupid words weren't the cause of my outburst."[4]

Performatory Verb: "agree"

"While <u>it is true that</u> celebrity megaconcerts will not end global poverty, celebrities have an unsurpassed ability to focus public attention, especially that of young people, on the world's poorest citizens."[5]

York Times, November 4, 2010.

[3]Comment, "Apple Changes Its Tune on Viruses," *The New York Times*, August 25, 2006.

[4]NYTimes Blog, "I'll Cry if I Want to," *The New York Times*, March 21, 2007.

[5]To The Editor, "On the Table: Aid to Africa," *The New York Times*, July 6, 2005.

Performatory Verb: "accept"

"Wonderfully written. <u>It's true that</u> often words are inadequate to describe such situations, yet we as humans almost always find the need to speak. I enjoyed your analogy of the patient being the battleground. Although I still give patient's credit for being brave. However, maybe this is just my undying need to use words to describe a situation."[6]

"It's true that" does not perform any action.

"There's a wall of floor-to-ceiling glass, and if you can see the people on the street, they can see you. <u>It's true that</u> a hot shower will steam up the glass. But do you want to run a hot shower every time you want to use the toilet?"[7]

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[6]Comment, "With Cancer, Let's Face It: Words Are Inadequate," *The New York Times*, March 15, 2010.

[7]F. A. Bernstein, "Open Views and High Style, But Still In Process," *The New York Times*, June 21, 2005.