「論文」

A Study of the *NP as it is known* Expressions through Comparison with the *NP as we know it* Expressions

Yoshiaki SATO

Abstract

The aim of this paper is to elucidate the specific characteristics of *NP as it is known* expressions (e.g., *the TPP as it's known*) through corpus analysis and comparison with seemingly similar *NP as we know it* expressions (e.g., *the world as we know it*). While these two types of expressions have their surface commonalities, corpus findings reveal divergent distributional patterns for them. Specifically, the analysis revolves around (i) an association between the two types of expressions and particular situations (e.g., denoting disappearance), (ii) usage of *as*-clauses, and (iii) discourse functions. The results demonstrate that the *NP as it is known* expressions lack any significant associations with particular situations and the *as*-clauses have two important uses: naming as the main use and restricting as another less typical use. Name-*as* is used to name an entity whose linguistic expression is modified by the *as*-clause; Restrictive-*as* is used to restrict the scope of such an entity. Furthermore, the name-*as* clause tends to signal that the NP modified by the *as*-clause is a paraphrase of the preceding expression and this NP tends to be a primary topic in the subsequent discourse. These properties sharply contrast with those of the *NP as we know it* expressions. Overall, this study advances our understanding of this lesser-studied type of expressions and provides novel insights into their semantic and discourse behavior. Furthermore, it will be expected to facilitate the exploration of other similar expressions from these perspectives.

1. Introduction

There are nominal expressions accompanied by the *as*-clause that includes the passive form of the verb *know*, as in (1a). There are also corresponding expressions

with similar configurations except voice, as in (1b).

    (1)[1] a. The Huffington Post knows its way around search engine optimization, or
            <u>S.E.O. as it's known</u>.   (COCA, Newspaper, 2010)
         b. IT IS A FAIRLY SURE BET THAT "<u>WELFARE as we know it</u>" will
           end.   (COCA, Magazine, 1994)

Both examples in (1) have in common the connective *as*, the verb *know*, and the pronoun *it* referring to the noun immediately before the *as*-clause. Because these two expressions are similar in terms of their configurations and the lexical items used, their behavioral patterns are also expected to be similar. This paper demonstrates that although they indeed have something in common, their behavior as a whole clearly differs from the expectation. In particular, in comparison with the *NP as we know it* expressions as in (1b), this study investigates (i) whether the *NP as it is known* expressions as in (1a) have strong associations with particular situations, (ii) what semantic/functional properties they have, and (iii) whether they have any discourse properties.

    This paper is organized as follows: Section 2 reviews two studies in the literature; Section 3 introduces the methodology of a corpus investigation; Section 4 provides and considers its results, focusing on three points (i.e., relevance to specific situations, sematic/functional properties, and a role in discourse); and Section 5 concludes and provides directions for further research.

2. Literature Review

    This section reviews two studies concerning two kinds of expressions in (1), and attempts to show some of their basic characteristics. The first study, Sato (2023), deals with the expressions as in (1b) and the second one, Lee-Goldman (2006), describes those in (1a).

2.1. Sato (2023)

    Among previous studies[2], Sato (2023) conducted the most detailed research on the expressions as in (1b) using the Corpus of Contemporary American English (COCA). Sato's (2023) focus was on the *NP as we know it* expression (e.g., *the world*

as we know it) and its variants (e.g., *records as we knew them*, *his life as he knows it*), hereafter referred to collectively as the *NP as we know it* expressions.[3] I investigated their behavior in relation to situations where their referents are involved and revealed the highly skewed distribution of the *NP as we know it* expressions by situational type.

Specifically, Sato (2023) demonstrated that the referent of a nominal modified by the *as*-clause markedly tends to participate in three situations: "non-existence," "origination," and "transformation." These situational types are defined as follows:

(2) **non-existence**: an entity is (going to be) absent or in crisis.
   origination: an entity originates or is born.
   transformation: an entity changes, or some aspect of it is altered.

(slightly adapted from Sato, 2023, pp. 76–78)

"An entity" in these situational types is intended to correspond to the referent of a nominal modified by the *as*-clause. And a typical example of each situational type is illustrated in (3).

(3) a. The world as we know it will <u>cease to exist</u>. (non-existence)
   b. Henry Steinway <u>invented</u> the piano as we know it. (origination)
   c. Television as you know it is about to <u>change</u>. (transformation)

(Sato, 2023, pp. 76–78)

The subject referent in (3a) is depicted to disappear in the future, (3b) represents the origin of the object referent, and (3c) indicates that some aspects of the subject referent will change. Therefore, these examples are categorized into "non-existence," "origination," and "transformation," respectively.

Sato (2023) classified all the examples retrieved by corpus research and found out that the above three situational types accounted for approximately 70%. Surprisingly, "non-existence" alone accounted for approximately 50%. The results are shown in Table 1.

Moreover, I compared typical variants (i.e., *NP as we know/knew it/them*) of the *NP as we know it* expressions with similar expressions with the relative pronoun *that* or *which* (i.e., *NP that/which we know/knew*) with respect to situational types; the results

Table 1. Distribution of *NP as we know it* Expressions with Respect to Situational Types

Situational type	Number of *NP as we know it* expressions
Non-existence	793 (49%)
Origination	161 (10%)
Transformation	160 (10%)
Others	501 (31%)
Total number	1615 (100%)

Note. Slightly adapted from Sato (2023, p. 83)

(see Table 2) revealed that the former, in contrast with the latter, has significant associations with the three situational types: "origination," "transformation," and especially "non-existence" ($\chi^2(3) = 391.577$, $p < .01$, $V = 0.486$).

Table 2. Distribution of Two Types of Expressions with Respect to Situational Types

	Non-existence	Origination	Transformation	Others	Row total
NP as we know/knew it/them	692	158	133	398	1381
NP that/which we know/knew	8	10	3	255	276
Column total	700	168	136	653	1657

Note. Slightly adapted from Sato (2023, p. 84)

Given these characteristics, we are prompted to ask *Does its passive counterpart (i.e., the* NP as it is known *expressions) exhibit similar behavior*? We will answer that question in Section 4.1.

2.2. Lee-Goldman (2006)

According to our literature review, the detailed research on the *NP as it is known* expressions is scant. For example, Lee-Goldman (2006) (also cf. Huddleston and Pullum, 2002) mentioned the expressions when discussing the gap within some types of *as*-clauses.[4] However, his focus was not on semantic/functional aspects of the *NP as it is known* expressions per se but on syntactic aspects of expressions accompanied by parenthetical *as*, including the *NP as it is known* expressions (and those shown in note 4).

Examples relevant to this paper are those with what he called name-*as*[5]:

(4) a. Logical addresses, or IP addresses as they are known as in the computer world, are destined to be hacked.

b. Melissa, or ChildOfBabylon [sic. Child Of Babylon] as I know her, is one of my old online journal friends.

c. They were "switched," as dealership salespeople refer to it.

d. In October, MK, as her friends call her, took a leave of absence from NYU [...].

(slightly adapted from Lee-Goldman, 2006, pp. 5-6))

Lee-Goldman (2006) pointed out that by virtue of this type of *as*-clauses, the NP that immediately precedes each of the name-*as* clauses in (4) refers to its referent's name rather than its referent per se. To put it another way, it is meta-linguistically used. For example, (4a) shows that logical addresses are known as "IP addresses" and (4b) intends to indicate that the speaker knows Melissa's another name, "Child Of Babylon." The verbs *refer* and *call* can also be used in this type of *as*-clauses, as in (4c-d). Although these two examples, unlike (4a-b), do not have overt expressions corresponding to those modified by the name-*as* clause, all these four examples convey the name of a person, a thing, or a situation. Because we are concerned with the elucidation of the specific properties of the *NP as it is known* expressions through comparison with the *NP as we know it* expressions, we focus on cases as in (4a-b).[6] Based on these two examples, our question is as follows: Although both indeed involve name-*as*, is there any semantic/functional difference between them?

In what follows, the issues of the *NP as it is known* expressions arising from Sato (2023) and Lee-Goldman (2006) are assessed based on quantitative corpus research. The data collected from the corpus will reveal specific characteristics and uses of the expressions in question.

3. Methodology of Corpus Investigation

This section introduces how I used the Corpus of Contemporary American English (COCA) to investigate the behavior of the *NP as it is known* expressions. First, I used the following search query to retrieve the data: _n* as_cs it/they/I/he/she/you/ we BE known.[7] _n* and as_cs are abbreviations in the COCA for any type of noun and

as as a subordinating conjunction, respectively. The copular *be* in capital letters includes all its variants (e.g., *is*, *was*, *were*), and each oblique slanting line inserted between pronouns means *or*.

Second, this investigation was conducted to be compared with the *NP as we know it* expressions; with respect to the data of the *NP as we know it* expressions, we owe it to Sato (2023). In Sato's (2023) investigation, genres such as "TV/MOVIES," "BLOG," and "WEB-GENL" were excluded because it was conducted before the update of the COCA to expand its scale to incorporate them. Thus, to conduct a study under the same conditions, we also excluded those data.

Last, the examples targeted in this study are those in which the referent of the initial NP in the *NP as it is known* expressions corresponds to that of the pronoun within the *as*-clause that seems to modify the NP. Other cases were removed by hand as noises.[8] As a result, 94 tokens were retrieved. The next section presents the results of this investigation and discusses them in detail.

4. Results and Discussion

This section presents the results of the corpus investigation introduced above and discusses them from three perspectives: preference for specific situations, semantic/ functional properties, and a role in discourse.

4.1. Association with Specific Situations

This section addresses the extent to which the *NP as it is known* expressions tend to be used in three situational types: "non-existence," "origination," and "transformation." The results of the classification are shown in Table 3, with relevant examples below it.

(5) a. […] the president could end American participation in the Trans-Pacific Partnership. its [sic. It's] fair to assume that the TPP as it's known is now <u>dead</u>. (non-existence)   (COCA, Spoken, 2016)

    b. Georg Friedrich Hindel, or George Frideric Handel as he is known today, was <u>born</u> in 1685 in Halle, Germany. (origination)

(COCA, Magazine, 1999)

    c. With Kennedy, he <u>energized</u> the Atlanta Opera as it's known today. (trans-
       formation)   (COCA, Newspaper, 2005)

    d. The Arvin Federal Camp, or Weedpatch camp [sic. Camp] as it was
       known, still <u>stands</u> at the edge of town. (others)

                                                   (COCA, Newspaper, 1999)

    e. Early on the morning of Jan. 31, 1968, as Vietnamese <u>celebrated</u> the Lunar
       New Year, or Tet as it is known locally, […]. (others)

                                                   (COCA, Newspaper, 2018)

    f. […] whereby landscape refers to both space and thoughts <u>within</u> and <u>about</u>
      "the world as it is known to those who dwell therein" (1993:156). (others)

                                                  (COCA, Academic, 2007)

Table 3. Distribution of *NP as it is known* Expressions with Respect to Situational Types

Situational type	Number of *NP as it is known* expressions
Non-existence	9 (9%)
Origination	9 (9%)
Transformation	3 (3%)
Others	77 (79%)
Total number[9]	98 (100%)

     Example (5a) shows that the subject referent (i.e., the TPP) of the *NP as it is known* expression already does not exist, and (5b) indicates the date and place of birth about the subject referent (i.e., George Frideric Handel); therefore, their categories are "non-existence" and "origination," respectively. With example (5c), the verb *energize* suggests that the two persons helped make the object referent (i.e., the Atlanta Opera today) popular and thus it is possible to assume that some change in its aspects was caused before; accordingly, this example is categorized into "transformation."[10] The category "others" comprises the other situational and non-situational types. Example (5d) conveys that the subject referent (i.e., Weedpatch Camp) *exists* in some area, and the object referent (i.e., Tet) in (5e) is the entity of being *celebrated*; accordingly, these examples do not express any of the three situational types (i.e., "non-existence," "origination," and "transformation") and thus are classified into the "others" category. Various verbs (e.g., *convict*, *teach*, *include*, *commit*) are used with the expressions, and no striking commonalities were observed regarding the types of situations within this category. The *NP as it is known* expression in (5f) functions as the object of the

prepositions *within* and *about*, and its referent per se does not directly participate in the situation described by the matrix verb *refer*. It functions as a place (e.g., *the house/ room* as in *within the house/room*) where space and thoughts exist and serves as a particular subject (e.g., *philosophy/culture* as in *a book about philosophy/culture*); thus, the category of this example is "others" as well.

　　Importantly, among all these types of situations, "non-existence" and "origination" each account for 9% and "transformation" for 3%. Together, they make up approximately only 20% of the total. Remember the distribution of the *NP as we know it* expressions, where "non-existence" accounts for approximately 50% and "origination" and "transformation" each for 10%, together making up 70 % of the total. What is particularly striking is that the rate of "non-existence" in the *NP as it is known* expressions is less than one fifth of the *NP as we know it* expressions. Considering their similar configurations and common lexical items, this difference between these two kinds of expressions is surprising. To further strengthen our results, we compared Tables 1 and 3 by conducting an χ^2 test.[11] The results revealed significant differences among conditions ($\chi^2(3) = 97.966$, $p < .01$, $V = .239$). Interestingly, the residual analysis after the χ^2 test showed that the *NP as it is known* expressions significantly tend to avoid "non-existence" whereas the *NP as we know it* expressions significantly prefer it at the $p < .01$ level. These results are represented in Table 4.

Table 4. Distribution of Two Types of Expressions with Respect to Situational Types

	Non-existence	Origination	Transformation	Others	Row Total
NP as we know it expressions	793 ($p < .01$)	161	160	501 ($p < .01$)	1615
NP as it is known expressions	9 ($p < .01$)	9	3	77 ($p < .01$)	98
Column Total	802	170	163	578	1713

　　Given the category "others" is a miscellany of various situations and non-situations, these results demonstrate that the *NP as it is known* expressions are highly unlikely to have a strong association with particular types of situations (especially with "non-existence"), unlike the *NP as we know it* expressions. This implies that there must be some other common characteristic aspects within the *NP as it is known* expressions. In the subsequent sections, therefore, we aim to identify and present such properties.

4.2. Naming Use

In the corpus investigation, we identified three types of properties of the *NP as it is known* expressions. The first property concerns what Lee-Goldman (2006) called name-*as*. As we saw in Section 2.2, the name-*as* clause serves to indicate that the immediately preceding NP is meta-linguistically used. In (6a), for example, the *as*-clause shows that the word "TPP" is pronounced (or written) as three individual letters—T-P-P. Furthermore, within the total number of the *NP as it is known* expressions retrieved, 66% of them (i.e., 62/94 tokens) both involve name-*as* and emerge in specific configurations exemplified in (6).

(6) a. […] the president could end American participation in the Trans-Pacific Partnership. its [sic. It's] fair to assume that the **TPP** as it's known is now dead.   (= (5a))

   b. The University of California, Santa Barbara—**UCSB** as it's known— could hardly be more different or farther away from Concord, Mass., where […].   (COCA, Newspaper, 1990)

   c. There's rookie Jason Williams, or **White Chocolate** as he's known now, a playground version of Pete Maravich.   (COCA, Newspaper, 1999)

   d. We also had a dolphin, or **dorado** as it's known in Spanish, in the box.
                                                                                         (COCA, Magazine, 2007)

   e. The underground church, **the house churches** as they're known, have been under renewed persecution recently.   (COCA, Spoken, 2000)

Typically, an expression (in bold) with name-*as* is found after the corresponding expression (underlined) in the immediately preceding sentence (e.g., (6a)) or in the same sentence (e.g., (6b-e)). For the latter, there are some variations: with an em-dash, (e.g., (6b)), a comma and *or* (e.g., (6c-d)), and only a comma (e.g., (6e)). Notably, all 62 examples are realized in one of these two distributional patterns.

   Given these distributional properties, the main and typical property of the *as*-clause of this type is to signal that an expression accompanied by this *as*-clause is a paraphrase of another one; accordingly, "TPP" and "UCSB" are initialisms for "Trans-Pacific Partnership" and "(The) University of California, Santa Barbara" in (6a-b); "Jason William" in (6c) is paraphrased with his nickname "White Chocolate"; "dorado"

in (6d) is a Spanish name for a kind of surface-dwelling fish called "dolphin"; and "The underground church" in (6e) is paraphrased with another name "the house churches." As can be seen from these examples, various kinds of paraphrasing are available with the use of name-*as*.[12]

Of course, name-*as* can be used to name the preceding NP, irrespective of the presence of any paraphrased expression; however, only few examples (i.e., 7 tokens) illustrate this point, some of which are exemplified in (7).

(7) a. He'll go to <u>the truce village</u> as it's known along the border and what fol-
lows?   (COCA, Spoken, 2019)

   b. This place is separate both from the Own [sic. Orun] inhabited by the Orixs [sic. Orixas] and <u>Bahia</u> as it is known to Bahians.

(COCA, Academic, 2003)

   c. As it does it creates clouds of course. Then you have <u>pyrocumulus clouds</u> as they're known across the streets.   (COCA, Magazine, 2007)

There is no expression comparable to "the truce village," "Bahia," or "pyrocumulus clouds" within the given and immediately preceding sentences (and actually, up to three sentences earlier) in each text. The word "clouds" per se appears in the first sentence in (7c), but pyrocumulus clouds are a subtype of clouds; thus, the two are not the same. The other examples (i.e., 25 tokens) are not of name-*as* or at least ambiguous between this and another type of *as* (i.e., the restrictive use of *as*). The latter use functions to qualify and constrain what is denoted by the noun-phrase preceding restrictive-*as*. A typical example is the phrase "the world as I know it," in which the *as*-clause narrows down the scope of the preceding entity (i.e., the world). We will discuss this use in the next section.

From these results, the number and rate (i.e., 69/94 tokens and 73%, respectively) of clear examples of name-*as* in the *NP as it is known* expressions appears to be very high. It is still unclear, however, whether this is a unique property of the *NP as it is known* expressions. It is possible that the same proportion is also observed in similar expressions, the *NP as we know it* expressions. To exclude such a possibility, we conducted the same kind of investigation for the *NP we know it* expressions as well. In some cases, it is potentially difficult to determine definitely whether *as* in these

expressions is of name-*as*; it may also be of the restrictive use. To deal with this issue with maximal accuracy, we examined the degree to which paraphrased expressions co-occur with them, because, as shown above, the presence of paraphrased expressions is the most typical environment in which name-*as* appears. To ensure comparability, we conducted our investigation under the same conditions as that of the *NP as it is known* expressions: whether there is an overt paraphrased expression before its paraphrasing expression within the same sentence or the immediately preceding sentence. Our results showed that most of the examples were of the restrictive use and the number of the naming use (even including the potentially relevant ones) was only 49 (of 1580) tokens, accounting for only 3%. Some of them are given in (8).

> (8) a. Well, <u>MSF</u>, or **Doctors Without Borders** as we know them here in the United States, has been in Afghanistan providing medical care during several wars, […].   (COCA, Spoken, 2004)
>
> b. He issued another executive order yesterday, this one for the <u>Food and Drug Administration</u>, the **FDA** as we know it, to examine ways to shore up prescription drug shortages.   (COCA, Spoken, 2011)
>
> c. Psychologically <u>Laurie</u>, **the child** as you knew her, withdrew from the pain and fear […].   (COCA, Fiction, 1992)
>
> d. […] so many of the great political upheavals […] were launched from <u>the territory west of the Ohio River</u>. **The region** as they knew it was what gave the country Socialists […].   (COCA, Magazine, 2004)

Examples (8a-b) seem to correspond to examples (6a-b); "MSF" in (8a) is an initialism for the French phrase 'Médecins Sans Frontières,' which is translated into 'Doctors Without Borders' in English; "FDA" in (8b) is an initialism for "Food and Drug Administration." They pertain to how "MSF" and "FDA" may be referred to differently, and thus are regarded as examples of name-*as*.[13] Examples (8c-d) somewhat differ from them, because "Laurie" and "the territory west of the Ohio River" are highly unlikely to be referred to literally as "(the) child" and "(the) region" as their names. They seem to be cases of the restrictive use of *as*. Due to the presence of the para-phrased expressions, nevertheless, our investigation had to include these kinds of ex-amples. Considering this point and the still remarkably low frequency of paraphrased

expressions, we can safely say that the naming use of the *as*-clause in the *NP as we know it* expressions is severely limited. As a result, it is concluded that name-*as* and a paraphrasing function are the main properties of the *NP as it is known* expressions.

4.3. Restrictive Use

Next, we discuss the remaining 25 examples. They can be interpreted differently from those of name-*as*.[14] *As*-clauses in these expressions serve to restrict the range of the preceding NPs modified by them: a restrictive use. This property is the second (less typical) property of the *as*-clauses in the *NP as it is known* expressions. The following examples illustrate this point evidently:

(9) a. A ruler who doesn't want to control the political system but to break the
             system as it is known?   (COCA, Magazine, 2019)
       b. This refers specifically to the Holy Land as it is known within Christian
             tradition, […]   (COCA, Academic, 2018)
       c. […] whereby landscape refers to both space and thoughts within and
             about "the world as it is known to those who dwell therein" (1993: 156).
                                                                             (= (5f))

They are clearly not metalinguistic uses of the NPs preceding the *as*-clauses. "The system" refers to "the political system" in (9a), but is not generally called or recognized as "(the) system" literally. "The system as it is known," as a whole, carries a meaning similar to "the existing system." Similarly, it is more likely that the *as*-clause in (9b) does not prompt the metalinguistic interpretation of "(the) Holy Land" but specifies one version or type of Holy Land (e.g., how the Holy Land is known by Christians as opposed to Buddhists). The same can be said of (9c), where a specific realm of perception of the world by a certain group of people (i.e., those who dwell therein) is intended rather than the entire world. Therefore, *as*-clauses in all these examples modify the preceding NPs and narrow their scope.

Moreover, this type of *as*-clause and the preceding noun typically constitute one unit. A fragment answer test, a traditional constituency test, indicates that "the Holy Land as it is known within Christian tradition" serves as a (phrasal) constituent[15]:

(10) A: This refers to the Holy Land as it is known within Christian tradition.

B: Sorry, what did you say? What Holy Land?

A: The Holy Land as it is known within Christian tradition.

In a response to the question from speaker B, speaker A can use the entire phrase "the Holy Land as it is known within Christian tradition" as an answer. Given that this question aims to elicit a kind of Holy Land, the *as*-clause here can be interpreted as serving to restrict the scope of the notion. In other words, it specifies some property/ aspect of the Holy Land in question (cf. Huddleston and Pullum, 2002, p. 1150). Another piece of evidence for this is that double quotation marks are used in (9c). Notice that they encompass not only the "the world," but also the entirety of "the world as it is known to those who dwell therein." This implies that the writer of this sentence does not consider "the world" and "as it is known to those who dwell therein" as separate and discrete, but (s)he considers them as a single constituent.

Notably, these two characteristics are also found in the *NP as we know it* expressions. Let us first consider (11).

(11) A: Then, the world as he knew it was over.

B: Sorry, what did you say? What world?

A: The world as he knew it.

An interlocutor (i.e., speaker B) can inquire, "What world?" when hearing another person (i.e., speaker A) say, "The world as he knew it was over." And in reply, speaker A can answer with "The world as he knew it," which refers to a specific part of the whole world. This kind of answer is typically possible for the *NP as we know it* expressions, because most of them are of the restrictive use. Furthermore, some examples with double quotation marks were found in the expressions, as in (1b), repeated as (12).

(12) IT IS A FAIRLY SURE BET THAT "WELFARE as we know it" will end.

(= (1b))

Once again, the entire phrase "WELFARE as we know it" is encompassed by the double quotation marks.

However, examples demonstrating paraphrases, as in (6), do not seem to exhibit such characteristics. Regarding (6a), for example, if an interlocutor inquired "What TPP?" in the context where the sentences in (6a) are uttered, another interlocutor would feel confused and never say "the TPP as it's known." Consequently, the following question and its answer are pragmatically very unnatural.

(13) A: The president could end American participation in the Trans-Pacific Partnership. It's fair to assume that the TPP as it's known is now dead.
      B: Sorry, what did you say? What TPP?
      A: The TPP as it's known.

Interestingly, no examples with name-*as* were found with double quotation marks placed at the ends of the string *NP* as-*clause*.

To sum up, there are two uses in the *NP as it is known* expressions: naming and restrictive uses. Quantitative analysis revealed that the former use is far more prevalent than the latter use (i.e., 69 vs. 25 tokens). Conversely, the *NP as we know it* expressions exhibited the opposite distribution: the naming use is scarce while the restrictive use is dominant (i.e., 49 vs. 1531 tokens). Table 5 shows these differences between the two types of expressions in question.

Table 5. Prevalence of Two Uses between Two Types of Expressions

	Naming use	Restrictive use
NP as it is known expressions	Main	Limited
NP as we know it expressions	Limited	Main

We can see form this table that these types of expressions exhibit a mirror relation to each other and furthermore, the distinct distributional pattern found within each type of expressions constitutes its own unique characteristics.[16]

4.4. A Role in Discourse

The third property is that *NP* in the *NP as it is known* expressions, especially when they involve name-*as*, tends to be overtly realized again and to be a primary topic. This tendency is evident in (14).

(14)   Darlene had lasted only a few months before she'd been replaced by Callie
        Kreutzer, an art student at the Dorset Academy, who happened to be the
        girlfriend of Justy Junior—or June as he was known. **June**, age twenty-four,
        worked for his dad as a salesman.   (COCA, Fiction, 2011)

Initially, June, an alias for Justy Junior, is introduced as the object referent of the
preposition *of*. He then serves as the subject referent in the following sentence, where
"June" occupies the topic position and the verbal phrase the comment position (cf.
Lambrecht, 1994). This section explores the correlation between topicality and the *NP
as it is known* expressions.

To examine such a discourse factor, the current study utilized the following
methodology. Since the name-*as* clause in these expressions mainly serves to signal
that the NP accompanied by this *as*-clause is a paraphrase of another one (see Section
4.2), a total of 62 examples, such as (6), demonstrating this paraphrastic relationship
were selected for analysis. With these examples, an analysis was conducted to ascertain
the specific grammatical case through which the NP in question was reintroduced, as
case marking is closely related to topicality. Givón, for example, provides the following
topicality order: SUBJECT > DIRECT OBJECT > OTHERS (1990, p. 901). Given that
the subjects and objects are commonly linked with nominative and accusative cases in
English, this paper posits that the two grammatical cases typically represent a primary
topic, classified as "nominative/accusative." The category of other cases (e.g., posses-
sive, dative) and part of a phrase (e.g., *welfare* in *welfare reform*) is "others," and if the
NP in question is not realized again within a specified range, it is categorized into "ϕ."[17]

The specific procedure, mainly based on Givón (1983), was as follows: The basic
unit to count was fixed as a clause; the subordinate clause was considered part of the
matrix clause[18] and the coordinate clause was counted as an independent clause. The
scope of the search was experientially limited to a maximum of three clauses subse-
quent to the clause including the *NP as it is known* expressions; the counting persisted
even in the event of a change in the speaker or paragraph.[19] This decision was made
due to the likelihood that the topicality of the NP in question may persist or that the NP
may acquire such a property anew in utterances by another interlocutor or within a new
paragraph. Regarding grammatical cases, only the first case in which the NP reappeared
was counted; thus, it was counted once, even if it reappeared multiple times within the

following three clauses. The same procedure and analysis were conducted for the *NP as we know it* expressions for comparison. The number retrieved was the same as that of the *NP as it is known* expressions and was extracted from 1580 tokens using stratified sampling.[20] After categorizing them into "nominative/accusative," "others," and "ϕ," these two types of expressions were compared by conducting an χ^2 test.

The results are presented in Table 6, with relevant examples of the two types of expressions below it:

Table 6. Distribution of Two Type of Expressions with Respect to Grammatical Cases

	Nominative/Accusative	Others	ϕ	Row Total
NP as it is known expressions	23 ($p < .01$)	25	14 ($p < .01$)	62
NP as we know it expressions	7 ($p < .01$)	14	41 ($p < .01$)	62
Column Total	30	39	55	124

NP as it is known expressions:

(15) a. The first Europeans found the Australian landscape, or bush as it was known, to be unfamiliar, hostile, and lonely. **It** was an alien place in which to live. (nominative)   (COCA, Academic, 1990)

b. Paul, or Saul as he was known before converting to Christianity, is reported to have had a fit that resembled an epileptic seizure: "a light from the sky suddenly flashed around **him**. He fell […]. (dative: others)
(COCA, Academic, 2013)

NP as we know it expressions:

(16) a. Later this year, we will offer a plan to end welfare as we know it… We have to end **welfare** as a way of life and make it a path to independence and dignity… (accusative)   (COCA, Magazine, 2004)

b. […] the fairy tales I read as a girl have no relationship to marriage as I know it—my own parents [sic. parents'] marriage has little relationship to **marriage as I know it**. (dative: others)   (COCA, Magazine, 1996)

With the *NP as it is known* expressions, a landscape called "the Austrian landscape" or "bush" is realized again as the subject of the second sentence in (15a), and a person called "Paul" or "Saul" is realized again as the object of the preposition *around* in

(15b). With the *NP as we know it* expressions, "welfare (as we know it)"[21] in (16a) is realized again as the verbal object in the following sentence, and in (16b) "marriage as I know it" is realized again as the object of the preposition *to*.

The results (Table 6) revealed significant differences among conditions ($\chi^2(2)$ = 24.890, $p < .01$, $V = .448$). Moreover, the residual analysis after the χ^2 test suggested that *NP* in the *NP as it is known* expressions prefers to be realized again in any manner, as indicated by the significantly lower frequency for the "ϕ" category in these expressions (at the $p < .01$ level). This implies that saliency or focus of attention (cf. Langacker, 2008) persists in this NP. More specifically, as evidenced by the significantly higher frequency for the "nominative/accusative" category in the expressions (at the $p < .01$ level), *NP* in the *NP as it is known* expressions, as opposed to the *NP as we know it* expressions, tends to represent a primary topic. From these results, it is concluded that the use of the name-*as* clause in the *NP as it is known* expressions signals that the modified NP tends to be reintroduced as a primary topic in the following discourse.

5. Conclusion and Outlook

This study revealed several key distributional properties of the *NP as it is known* expressions, as summarized in Table 7.

Table 7. Summary of Distributional Properties of Two Types of Expressions

	Preference for particular situations (e.g., "non-existence")	Naming use	Restrictive use	Primary topic
NP as it is known expressions	Limited	Main	Limited	Main
NP as we know it expressions	Main	Limited	Main	Limited

As can be seen from the table, the *NP as it is known* expressions, unlike the *NP as we know it* expressions, have no significant connections with particular situations, such as "non-existence." The *as*-clause in the former expressions is instead mainly used to name the preceding NP and typically signals that this NP is a paraphrased expression. Moreover, the *as*-clause in question can also restrict the range of the preceding NP and in that case, each of the *NP as it is known* expressions typically constitutes a unit, or phrasal constituent. With a discourse aspect, *NP* in the *NP as it is*

known expressions significantly tends to be overtly realized again in the subsequent sentences and is likely to be a primary topic in the following discourse. Interestingly, in all these respects, these two types of expressions exhibit a mirror relation to each other.

These results will be able to facilitate the comparison of similar expressions, such as *NP known as* expressions and *NP as we call/put/refer to it* expressions, to reveal their (di)similarity. From a wider discourse perspective, topic persistence or a topic-promoting function (cf. Lambrecht, 1994) may also be a crucial distinguishing factor. Consequently, further scrutiny is warranted to unveil their distinct properties. In this regard, this study provides the new insights into the exploration of the *NP as it is known* expressions and other several similar expressions, contributing to future linguistic inquiry.

Acknowledgements

Notes

1. Emphasis is mine and the same applies hereafter.
2. See Ishibashi (1966), Watanabe et al. (1976, 1981, 1995), Kanaguchi (1978), Kinugasa (1979), Ogawa (1985), Hirota (1988), Kumagai (1989) and Yagi (1996). These previous studies do not restrict their focus to expressions where the *as*-clause includes the verb *know*, but they consider the general description of a kind of *as* that modifies the preceding nominal.
3. The reason for using this name is that the variant *NP as we know it* is the most typical and frequent form among all the variants; it accounts for over 75% of the total (Sato, 2023, p. 75).
4. Other examples illustrating this point are as follows:
    (i)   As is often the case ___, most people don't understand the important issues.
    (ii)   As most people do ___, she probably initially thought that it would be easy.
                                                        (Lee-Goldman, 2006, p. 4)
    The gap in the former sentence corresponds to the matrix clause in (i) as a whole and the one in the latter to the verbal phrase in the matrix clause in (ii).
5. One characteristic of name-*as* is its syntactic mobility:
    (i)   The best thing is my ability to "vague out", *as I call it*.

(ii)   This is the account I attribute to, *as I call him*, 'Satre-Two'.

(iii)[*] Trish has been working too hard, *as I call her for short*.

(Lee-Goldman, 2008, p. 243)

In (i), the name-*as* clause appears after a phrase it modifies and it can also appear before it, as in (ii); however, it cannot appear anywhere else, according to Lee-Goldman (2008). This is an interesting syntactic behavior and is also interesting in terms of grammaticalization, but since this paper tries to seek out the semantic/functional properties of the more specific expressions (i.e., the *NP as it is known* expressions), this syntactic mobility is beyond the scope of it and not treated here. For interested readers, see also Lee-Goldman (2007, 2012).

6. To avoid complicating the discussion and the potential influence that might be caused by the presence of commas (cf. Yagi, 1996), we only treat comma-less variants and exclude examples as in (i) and (ii).

(i)   "Live TV, as we know it, is over," she says.   (COCA, Magazine, 2004)

(ii)   CBD or cannabidiol, as it's known scientifically is one of dozens of compounds in marijuana called cannabinoids.   (COCA, Newspaper, 2014)

Assessing the difference and similarity in their behavior is left to my future research.

7. First access to the data was June 6, 2021.

8. For example, the following examples are excluded that express the comparison between the matrix clause and the *as*-clause:

(i)   As respected for her candor as she's known for her humor, Goldberg once set the record straight […].   (COCA, Magazine, 2001)

(ii)   […], all of them known to Jeannette as she was known to them, […].

(COCA, Fiction, 1995)

9. The total number in this table is more than that of all the tokens retrieved, because the referent of the head of the *NP as it is known* expressions can participate in more than one situation when the two (or more) predicates or prepositions are conjoined within the matrix clause in a sentence:

(i)   The first Europeans found the Australian landscape, or bush as it was known, to be unfamiliar, hostile, and lonely.   (COCA, Academic, 1990)

Here, the three predicates *unfamiliar*, *hostile*, and *lonely* are used to describe the properties that the Australian landscape (known as bush) has; thus, each of them is categorized into the "others" category.

10. This is less typical than (3c), which is a typical example of "transformation" in that the change is directly expressed linguistically (i.e., by the verb *change*). Another example, shown in below, is also less typical, because the change in physical state is temporary and expected to return to normal soon.

(i)   In the late 1880s, Wovoka, or Jack Wilson as he was known in the non-Indian world, fell ill with a severe fever, which happened to coincide with a solar eclipse.

(COCA, 2016, Academic)

In fact, there were no typical examples of "transformation" in the *NP as it is known* expressions.

11. Data analysis was performed using data analysis software, js-STAR, available online at https://www.kisnet.or.jp/nappa/software/star/.

12. An anonymous reviewer points out the following variant, where an adverb is inserted between *is* and *known*, as opposed to e.g., (5e), and wonders whether the *NP as it is known* expressions are now becoming fixed phrases.

    (i) High-Performance Computing, or HPC as it is <u>generally</u> known, has been a mainstay of infrastructure and hardware engineering groups for decades.

                              (https://www.rxdatascience.com/high-performance-computing)

    Without examining historical changes, however, it is difficult to make a final judgment, but currently, it seems that such fixation has not occurred and adverbs can arise relatively freely, which is supported by the fact that over 30 examples of this kind are found in COCA.

13. Two informants also judged these two examples to be of name-*as*.

14. All these examples were provided to two informants with a sufficient context of approximately 100 words, including the *NP as it is known* expressions. Then, both informants judged that the restrictive use is preferable as an interpretation of these expressions, although the naming use may also be possible or ambiguous in some of them.

15. This test is not effective against some examples of the restrictive use, not because they are not constituents, but because they do not have enough specificity. "The system as it is known" in (9a), for example, was not judged to be a likely answer to the question "What system?" Instead, "The political system as it is known" can qualify as the answer, which also suggests that the string *NP* as-*clause* forms a constituent.

16. An anonymous reviewer poses the question of why the passive form is deeply related to name-*as*. It seems that it often does not matter specifically who knows/refers to an entity by a particular name, but rather how it is generally or conventionally named. In fact, all of the *NP as it is known* expressions with name-*as* do not explicitly involve a specific individual who knows an entity's name (e.g., *NP as it is known by John*). Instead, in one case (e.g., (6a-b)), it is assumed that many people know its name, rendering it unnecessary to specify who knows it, while in another case (e.g., (5e-f)), it is either implied or indicated obliquely that a group of people know it. These situations mesh well with the well-known function of passive voice: defocusing agent (cf. Shibatani 1985). Therefore, the *NP as it is known* expressions, unlike the *NP as we know it* expressions, are likely to be used with name-*as*.

17. A similar methodology and perspective can be observed in Tokunaga (2019), who revealed that the subjects of *as*-clauses with subject-auxiliary inversion are more likely to function as primary topics in the subsequent sentences than those without such inversion.

18. This means that when the NP in question is reintroduced as the subject or object in the subordinate clause, it will be categorized as "others," not "nominative/accusative."

19. Even after excluding such cases, the results remained statistically significant.
20. All of the extracted examples showed no clear sign of name-*as* and seem to be of restrictive-*as*; thus, we should be aware that the comparison is done between the typical use/behavior of the *NP as it is known* expressions and that of the *NP as we know it* expressions.
21. Often ambiguous and hard to distinguish (especially when the subject of the *as*-clause is *we*) is which is paraphrased, *NP as we know it* or *NP*; thus, we did not distinguish between the two in this study.

References

Davies, M. (2008-). *The Corpus of Contemporary American English (COCA)*. Available online at https://www.english-corpora.org/coca/.

Givón, T. (1983). Topic Continuity in Discourse: An Introduction. In T. Givón (Ed.), *Topic Continuity in Discourse: A Quantitative Cross-Language Study* (pp. 1–41). John Benjamins. https://doi.org/10.1075/tsl.3.01giv

Givón, T. (1990). *Syntax: A Functional-Typological Introduction (Vol II)*. John Benjamins. https://doi.org/10.1075/z.50

Hirota, N. (1988). *As*-setsu to Kankeishi. *Eigo Seinen (The Rising Generation)*, *133* (11), 9. https://doi.org/10.11501/4435575

Huddleston, R., & Pullum, G. K. (2002). *The Cambridge Grammar of the English Language*. Cambridge University Press. https://doi.org/10.1017/9781316423530

Ishibashi, K., Hirose, T., Ito, K., Takanashi, K., Tori, T., & Watanabe, T. (Eds.). (1966). *A Dictionary of Current English Usage I*. Taishukan. https://doi.org/10.11501/8312728

Kanaguchi, Y. (1978). *Gendai Eigo no Hyougen to Gokan*. Taishukan. https://doi.org/10.11501/12580610

Kinugasa, T. (1979). Toki wo Arawasu *As*. *Gohou Kenkyu to Eigo Kyoiku (Studies in Usage and English Teaching)*, *1*, 17–25.

Kumagai, Y. (1989). A Note on English *As*-clause. *Mita Working Papers in Psycholinguistics 2*, 55–63.

Lambrecht, K. (1994). *Information Structure and Sentence Form*. Cambridge University Press. https://doi.org/10.1017/CBO9780511620607

Langacker, R. W. (2008). *Cognitive Grammar: A Basic Introduction*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195331967.001.0001

Lee-Goldman, R. (2006, September 29). *Parenthetical* As *(and Movement Paradoxes)*. Syntax & Semantics Circle, Berkely, California, United States.

Lee-Goldman, R. (2007, March 8-11). *The Relative Proform* As. Georgetown University Roundtable on Language and Linguistics, Georgetown, Washington DC, United States.

Lee-Goldman, R. (2008). Supplemental Relative Clauses and Syntactic Generality. *BLS*, *34*, 233–244. https://doi.org/10.3765/bls.v34i1.3572

Lee-Goldman, R. (2012). Supplemental Relative Clauses: Internal and External Syntax. *Journal of Linguistics*, *48* (3), 573-608. https://doi.org/10.1017/S0022226712000047

Ogawa, A. (1985). Meishi-ku wo Gentei Suru *As*-setsu. *Eigo Kyoiku [The English Teacher's Magazine]*, *131*, 444–445.

Sato, Y. (2023). On the *NP as we know it* Expressions and its Variants. *English Corpus Studies*, *30*, 71–94.

Shibatani, M. (1985). Passive and Related Constructions: A Prototype Analysis. *Language*, *61*, 821–848. https://doi.org/10.2307/414491

Tokunaga, K. (2019). Zuiiteki na Shugo Jyodoushi Touchi ga Tekiyou Sareta *As*-setsu no Bunmyaku teki Kinou to Sono Tokucho—Touchi Gensho to Bunmyaku teki Kinou no Interface. *Studies in Pragmatics*, *21*, 139–160.

Watanabe, T., Ando, S., Fukumura, T., Kawakami, M., Konishi, T., Miura, S., & Soranishi, T. (Eds.). (1976). *A Dictionary of Current English Usage II*. Taishukan. https://doi.org/10.11501/12580592

Watanabe, T., Ando, S., Fukumura, T., Kawakami, M., Konishi, T., Miura, S., & Murata, Y. (Eds.). (1981). *A Dictionary of Current English Usage III*. Taishukan. https://doi.org/10.11501/12580590

Watanabe, T., Fukumura, T., Kawakami, M., Konishi, T., & Murata, Y. (Eds.). (1995). *A Dictionary of Current English Usage IV*. Taishukan. https://doi.org/10.11501/12580591

Yagi, K. (1996). *Native no Chokkan ni Semaru Gohou Kenkyu: Gendai Eigo heno Kijyutsuteki Apurouchi*. Kenkyusha.

（佐藤　嘉晃　京都大学（非常勤講師））