An Acceptable Classification of Metonymy and Synecdoche:
A WordNet-Driven Approach

Motoari Suzuki
Kyoto University
ss1mvk@gmail.com

Abstract: In the history of linguistics, metonymy has had a complex relationship with synecdoche. This complexity is due to the confusion of partonomy and taxonomy. In order to avoid this confusion and reinforce the results of these studies, it is necessary to produce numerical and objective evidence. And also necessary to carry out a comprehensive analysis of the semantic structure to deliberate on the semantic relations beyond a word, which reflect the cognitive structure of the real world. This can be a sine qua non for the identification of metonymy. In this study, I will take a WordNet-driven approach that can inductively present criteria for this distinction. Metonymy can be extracted from the system of WordNet composed of semantic relations. The numerical distribution of the hypernyms subordinating metonymy will be analyzed. The taxonomical distance of each sense that constitutes metonymy in WordNet is numerically analyzed. These analyses are expected to realize an acceptable classification framework of metonymy and synecdoche. Based on the results of these numerical analyses, I aim to reinforce the objective basis of metonymy and recompose the classification framework of metonymy and synecdoche in previous studies.

Keywords: WordNet, polysemy, metonymy, synecdoche, partonomy, taxonomy

1. Introduction

In the history of linguistics, metonymy has had a complex relationship with synecdoche. Both polysemic categories are sometimes distinguished and sometimes integrated, and even today those definitions are not decisively formulated. This complexity is due to the confusion of partonomy and taxonomy. This confusion has already been studied in previous research, and the regularities have been identified to a certain extent. In order to avoid this confusion and reinforce the results of these studies, it is necessary to produce numerical and objective evidence.

The concept of polysemy itself denotes the structure of meaning within a word. Therefore, the semantic relations, which are the semantic structures beyond a certain word, are out of the scope of consideration when considering polysemy. A comprehensive analysis of the semantic structure deliberating

© 2021 Motoari Suzuki. All Rights Reserved.

on the semantic relations, which reflect the cognitive structure of the real world, can be a sine qua non for the identification of metonymy.

WordNet is a linguistic ontology that objectively reflects the systematic structure of semantic relations in the lexicon. It provides systematic and substantial criteria for linguistics from various perspectives. It is highly probable that WordNet can be applied to acceptable criteria for polysemy classification. In this study, I will take a WordNet-driven approach that can inductively present criteria for this distinction. Metonymy can be extracted from the semantic system of WordNet. The numerical distribution of the hypernyms subordinating metonymy will be analyzed, compared to those corresponding to the synecdoche as a certain criterion of comparison. The taxonomical distance of each sense that constitutes metonymy in WordNet is numerically analyzed. These analyses are expected to realize the acceptable classification of metonymy and synecdoche. Based on the results of these numerical analyses, I aim to reinforce the objective basis of metonymy and recompose the classification framework of metonymy and synecdoche in previous studies.

2. Defining Metonymy Through Careful Consideration to the Relationship of Partonomy to Taxonomy

The confusion of partonomy and taxonomy is the error of confusing the partonomy based on the contiguity of the real-world structures with the taxonomy based on the category relationship of the conceptual structures. [1] Sato (1978) analyzed the dichotomous classification framework of synecdoche composed of Π and Σ styles by le groupe μ (1970) and proposed a clear distinction between metonymy and synecdoche. [2] He redefines that metonymy is based on the Π style, which is composed of whole and its parts as contiguity in the real world. And he redefines that synecdoche is based on the Σ style, which is composed of whole and its parts as the relationship between genus and species.

As shown in the arguments above, the studies on this confusion have the premise in common that contiguity is the foundation of metonymy. Although there is a wide variety of views on metonymy, this premise is the undeniable consensus in previous studies. The theory propounded by Jakobson's (1956) semantic principle has been well known for a long time. He placed emphasis on a dichotomous structure between similarity and contiguity. Ullmann (1962) also built his own theory of semantic change on the foundation of the dichotomous structure between similarity and contiguity. The classification framework of polysemy in cognitive semantics originated with Lakoff & Johnson (1980). They proposed a dichotomous structure of metaphor and metonymy based on the conceptual domain or Idealized Cognitive

[1] Seto (1999:92-95). See also Tversky (1990).
[2] Sato (1978:152ff.).

Model (ICM). [3] It can be said that they inherit the dichotomous principle from Jakobson (1956) or Ullmann (1962).[4] According to the definition of metonymy by Radden & Kövecses (1999), in conformity with this explanatory model using ICM, the unity "within the same domain" is the common basis of comparison between objects in metonymy.[5] In their description, "within the same ICM" means unity within the same domain. This unity is the trigger between the comparison items in metonymy. As far as I can see, there is no previous research that denies the concept of contiguity as a unity within the same domain ("conceptual domain" or "ICM") to be the basis of metonymy. Therefore, in light of the history of these previous studies, this paper is based on the premise that the basis of metonymy is contiguity in the above sense.

In order to find out the cause of this confusion, the similarities between the two semantic patterns must be clarified. In the distinction between metonymy and synecdoche by Sato (1978), both of them have the relation structure between the part and the whole. What they have in common does cause the necessity for this distinction. In fact, Seto (2003) exactly pointed out that a certain schematic projection similar to the part-whole relation may cause the confusion.[6] This argument can be corroborated by the tendency that the part-whole relation is often easily confused with the hyponymy due to their common hierarchical structure.[7]

In Seto (1999), the pivotal study on this problem, the confusion of partonomy with taxonomy is used synonymously with that of metonymy and synecdoche. However, in the case where this confusion occurs, the synecdoche is included in the metonymy, and the whole of the metonymy has no symmetrical relationship with the synecdoche.[8] In this case, the synecdoche is integrated with a polysemy pattern based on a part-whole relation, a component of metonymy. In other words, while there are elements of metonymy based on part-whole relations integrated with the synecdoche through this confusion, there are also elements of metonymy unrelated to the confusion.

According to Lakoff & Johnson (1980), the part-whole relation constitutes metonymy.[9] They point out that metonymy contains synecdoche as a part-whole relation. From the viewpoint of the semantic relations, inversely, this argument may also be inferred from the fragmentary denotation of

---

[3] In this structure, the synecdoche is incorporated into the metonymy as a part-whole relation in the broad sense. This will be discussed later.
[4] Nerlich & Clarke (1999:199).
[5] "Metonymy is a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same idealized cognitive model." (Radden & Kövecses (1999:21)).
[6] Seto (2003: 200ff.). More on this later.
[7] Lyons (1977:291ff.).
[8] Lakoff & Johnson (1980) in loc. cit.
[9] "We are including as a special case of metonymy what traditional rhetoricians have called synecdoche, where the part stands for the whole …" (Lakoff & Johnson (1980:36)).

"automeronymy" or "autoholonymy" coined by Cruse (2000), which may be equivalent to the part-whole relation formed within the same word, although he does not seem to deal with it as a type of metonymy.[10] The fact that metonymy contains part-whole relations entails that metonymy also contains components other than part-whole relations. In Radden & Kövecses (1999), the following classification framework is proposed as a classification of metonymy. [11] This framework explicitly indicates the opposition between the part-whole relations and another component in metonymy:

(i) Whole ICM and its part(s)	(ii) Parts of an ICM

The ICM here corresponds to the whole in the part-whole relation insofar as it is compared to the part(s). Therefore, in the classification framework of (i) and (ii) above, ICM can be expressed as whole:

(i) Whole and its part(s)	(ii) Parts of whole

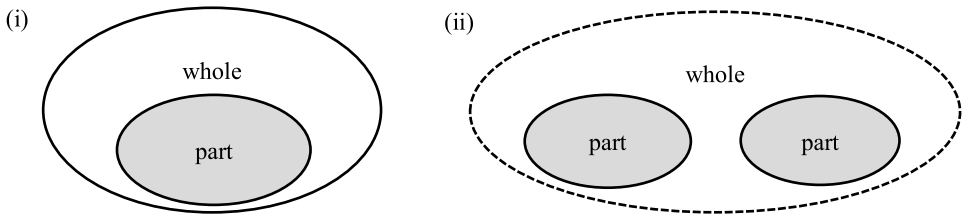

Figure 1: Classification of metonymy in Radden & Kövecses (1999)

(i) is a part-whole relation. (ii) is the relationship between the parts in the whole. [12] Both (i) and (ii) have in common that they are semantic relations in the same domain.

There had already been other metonymy classification framework by Thomas (1894), which is similar to that of Radden & Kövecses (1999):

a) Teil für Ganzes, b) Ganzes für Teil, c) Teil für Teil. (Thomas (1894:723))
(= a) part for whole b) whole for part c) part for part)

In the above metonymy classification framework, a) + b) corresponds to the part-whole relation. This is equivalent to (i) Whole and its part(s) in the metonymy classification framework of Radden & Kövecses (1999) above. And c) is equal to (ii) Parts of the whole. Thus, in the dichotomous classification framework of metonymy by Radden & Kövecses (1999), which is composed of (i) and (ii), a) + b) and c) in Thomas (1894) are dichotomously allocated.

[10] Cruse (2000:110ff.).
[11] Radden & Kövecses (1999:30).
[12] Note that in (ii), several parts of the region are focused; accordingly the whole region is pushed in the background.

Through the review of previous studies, it has been deduced that metonymy is dichotomously composed of the part-whole relation in which both of the polysemic elements are united and another semantic relation in which both of the elements are independent. [13] In respect of the importance of the part-whole relation among the confusion of partonomy and taxonomy, the metonymy in the following refers to a polysemic pattern based on the former.

The confusion of partonomy and taxonomy changes not only the relationship between the part-whole relation, metonymy and synecdoche, but also the scope they refer to. It is not too much to say that we cannot grasp even what metonymy and synecdoche are without the careful consideration to the problem. Hereinafter I essay to explicate the insight into the problem[14] in a refined perspective visualizing the whole mechanism. In the case where there is the confusion, synecdoche is encompassed in the metonymy as a part-whole relation in a broad sense. In this case, synecdoche includes not only elements corresponding to partonomy but also those corresponding to taxonomy (Figure 2).

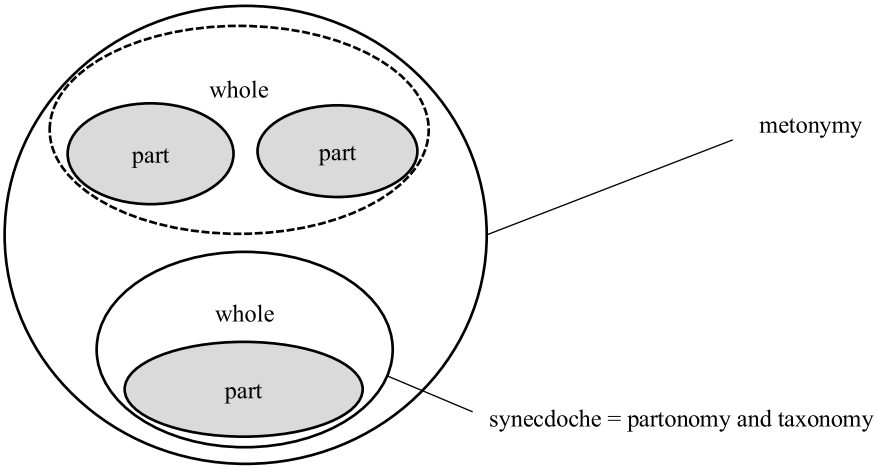

Figure 2: A conceptual image of the relation between metonymy and synecdoche which encompasses the confusion of partonomy and taxonomy

[13] According to Dumarsais(1757), in the case of metonymy, both elements of comparison are "independent" (subsiste indépendament). In the case of synecdoche, on the other hand, the "whole" (le tout) and the "parts" (la partie) are "in unity" (ensemble) (Dumarsais (1757:112ff.)). Note that, however, this synecdoche specified by the relation of "unity" is equivalent to a broad sense of part-whole relation that encompasses both partonomy and taxonomy. In this criterion between metonymy and synecdoche, the synecdoche defined by the relation of "unity" is equivalent to the part-whole relation in the broad sense in the classification framework by Lakoff & Johnson (1980). In other words, what Dumarsais calls synecdoche here corresponds to (i) in the metonymy classification framework by Radden & Kövecses (1999) in loc. cit. Therefore, this opposition between the concepts of "unity" and "independence" pointed out by Dumarsais can be applied as a criterion for classifying metonymy.

[14] Seto (2003).

On the other hand, when this confusion is avoided, metonymy encompasses the partonomy equivalent to the part-whole relation in the narrow sense, and synecdoche corresponds to a taxonomy (Figure 3). As shown by the dotted line in Figure 3, the synecdoche in this case corresponds to taxonomy and has in common only the structure of a part-whole relation with the partonomy. Concurring with Seto (2003), I argue that it is this structural projection of the part-whole relation that may be the most significant factor in the confusion of partonomy and taxonomy.

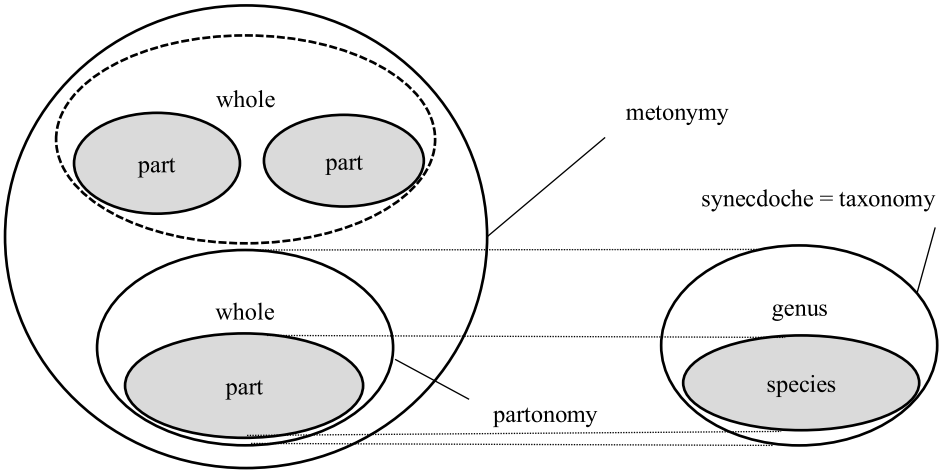

Figure 3: A conceptual image of the relation between metonymy and synecdoche which avoids the confusion of partonomy and taxonomy

When the confusion of partonomy and taxonomy is analyzed in this paper, metonymy refers to partonomy based on the contiguity of real-world structures (i.e., part-whole relations in the narrow sense) in cases where this confusion is avoided. On the other hand, the element corresponding to taxonomy based on the category relationship of the conceptual structures is synecdoche. In this paper, synecdoche is the polysemic pattern based on the relation between genus and species, the interrelationship between general meanings and specific meanings.

A tentative definition of metonymy in this study is deduced based on the linguistic views discussed in this section: the metonymy dealt with in this paper is a polysemy pattern based on the inclusionary semantic relation, the part-whole relation in which both of the metonymical elements are in unity interrelated by the contiguity of the structures in the real world.

Through the review of previous studies on metonymy and the confusion of partonomy and taxonomy, the distinctive classification framework between metonymy and synecdoche is tentatively deduced as shown in Figure 4. This classification framework consists of diverse dichotomous oppositions as follows: part and whole vs. genus and species, contiguity vs. category relationship, real-world structure vs.

conceptual structure. In the following, it will be verified whether this classification framework is satisfying or not.

In this section, previous studies on metonymy and the confusion of partonomy and taxonomy have been reviewed. True, it may remain a controversial problem. But it goes without saying that more detailed criteria are necessary to make a logical decision. The main aim of this study is to extract a numerical basis for metonymy from the semantic system of WordNet and to provide acceptable criteria for this distinction.

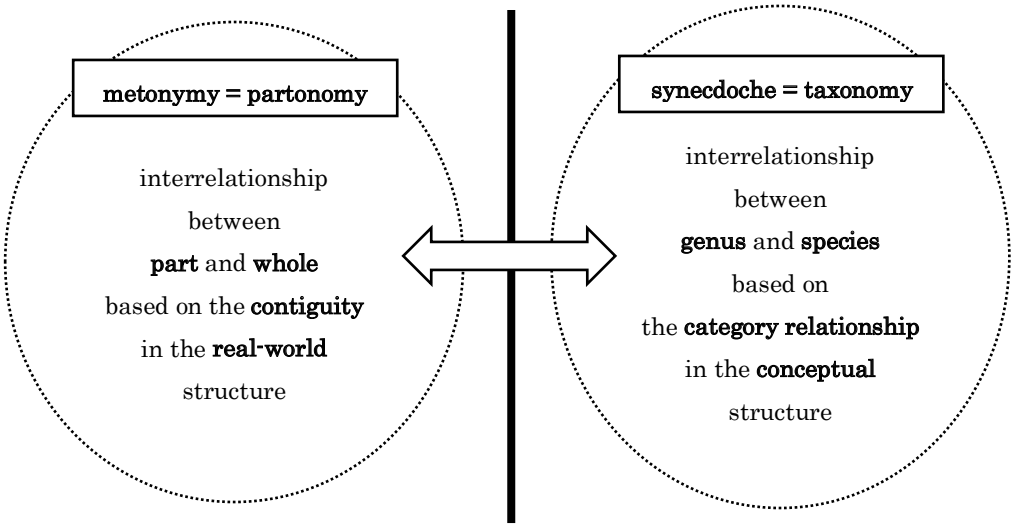

Figure 4: A conceptual image of the relation between metonymy and synecdoche distinguishing partonomy from taxonomy

3. Algorithm for Identifying Metonymy through Data Structures of WordNet

In this section, the intrinsic data structure of WordNet is explained and its objectivity is verified. The process of extracting polysemy structures utilizing the intrinsic data structure of WordNet is carried out as a concrete algorithm.

3.1 Data Structures of WordNet

WordNet is a database of the semantic structure of the English lexicon and has a wide variety of functions for displaying various semantic relations, including the function of a thesaurus for displaying synonymy relations. In WordNet, a synonym group called a synset (= synonym set) is the unit of meaning. In general, dictionaries list the polysemic structure within a word by arranging senses respectively in each lemma (i.e., word), its minimum constituent unit. In contrast, WordNet lists the structure of semantic relations beyond a word by arranging lemmas (i.e., words) respectively in each sense, its minimum

constituent unit. The 8-digit numbers assigned to each synset are called synset-IDs, which identify each synset. With this synset-ID allocated to each synset, various information of the semantic structure stored in each synset, especially semantic relations (i.e., part-whole relations, hyponymy relations, and so forth), can be accurately retrieved and extracted by digital processing. The data structure of the WordNet 3.0 database file[15] (data. *POS*[16]) stored by synset-ID is shown in Figure 5:

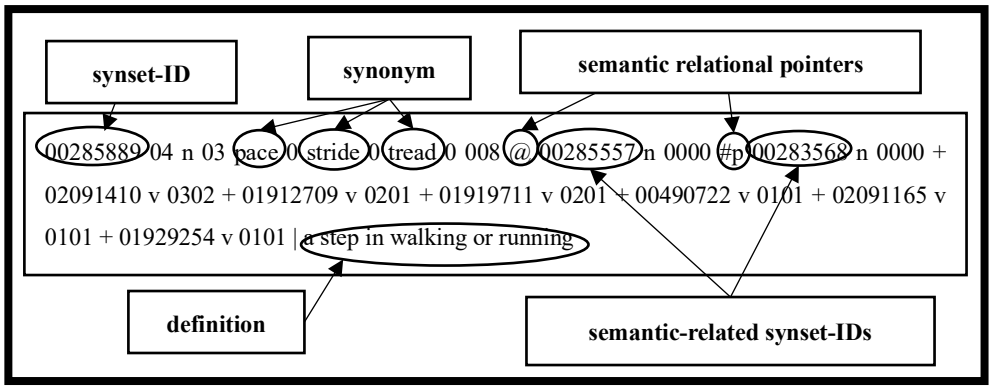

Figure 5: An example of the synset data structures

As shown in Figure 5, the WordNet 3.0 database file (data.*POS*) contains various information, with one line for each synset. The information stored in WordNet includes definitions, synonyms, and semantic relations (e.g., hyponymy relations, part-whole relations, and so forth). These various types of information are comprehensively registered by synset-ID. Each of these synsets stores a symbol called a pointer that indicates the semantic relationship between synsets. This pointer indicates the type of semantic relationship between the synsets.

In this way, WordNet stores a large number of data on the semantic relations between various words, but WordNet does not explicitly indicate the polysemy structure within the same word.

The developers of WordNet have officially distributed a program file in C language format that searches and extracts various information in the database using various search keys including synset-ID. However, this program file is intended to retrieve and extract various semantic relations beyond a certain word, mainly synonymy, and is not designed to retrieve and extract polysemy structures within the same word.

In the next subsection, the algorithm that specializes in analyzing the data structure of WordNet and automatically extracting the polysemy structure of metonymy from WordNet will be proposed.

---

[15] Princeton University (2010).
[16] POS = Part of Speech.

3.2 Algorithm Construction for Structure Analysis of Metonymy

As explained in the previous subsection, WordNet is composed of semantic relations, the structures of meaning beyond a word (e.g., synonymy, hyponymy, part-whole relations, and so forth). Therefore, the polysemy structures, the structures of meaning within the same word, are not explicitly indicated. This is because WordNet was originally constructed for the systematization of semantic relations.

In this research, I, in turn, do propose an automatic method to extract the semantic relations formed within the same word, not beyond a word, from the semantic system of WordNet, partly alongside of the appropriate method in the previous studies. And I will clarify polysemy structures that correspond to the metonymy identified in Section 2.

In order to utilize the semantic structure inherent in WordNet, this study objectively extracts the polysemy structure of metonymy and synecdoche in WordNet by using search keys such as synset-ID and pointers that indicate semantic relations between synsets, probably concurring with Lohk et al. (2019) as to this point. This study extracts polysemy patterns in the simplest way focusing on the cross-reference relations by these keys, enhancing and explicating the extraction method proposed by Lohk et al. (2019).[17][18]

A semantic relation is, indeed, a relationship beyond a word. Therefore, in the semantic structure of WordNet built by semantic relations, a cross-reference relation between synsets beyond a certain lemma is formed by pointers that indicate semantic relations.[19] However, this cross-reference relation may also be observed between senses contained in the same lemma. The structure of this relation is a polysemy structure within the same word. In Figure 6, the cross-reference relationship between two senses within the same lemma in the WordNet data structure is visualized:

[17] The analysis algorithm in this study analyzes the data information in the WordNet 3.0 database file (data. POS) (Princeton University (2010)) (POS = Part of Speech).

[18] As far as I can see, previous studies on extracting polysemy structures from WordNet (Buitelaar (1998), Peters (2004), Barque et al. (2009), Freihat et al. (2013), Lohk et al. (2009), et al.), the content of each synset definition is interpreted (Peters (2004), Barque et al. (2009)), the original semantic structure of WordNet is transformed (Freihat et al. (2013)), the simple semantic structure inherent in WordNet is subdivided (Buitelaar (1998), Lohk et al. (2019)). Those studies do not fully utilize the simple database structure inherent in WordNet, which is composed of objective search keys such as synset-IDs and pointers that indicate semantic relations.

[19] "WordNet is organized by semantic relations. Since a semantic relation is a relation between meanings, and since meanings can be represented by synsets, it is natural to think of semantic relations as pointers between synsets. It is characteristic of semantic relations that they are reciprocated: if there is a semantic relation R between meaning {x, x′, ...} and meaning {y, y′, ...}, then there is also a relation R′ between {y, y′, ...} and {x, x′, ...}."(Miller et al.(1991:240)).

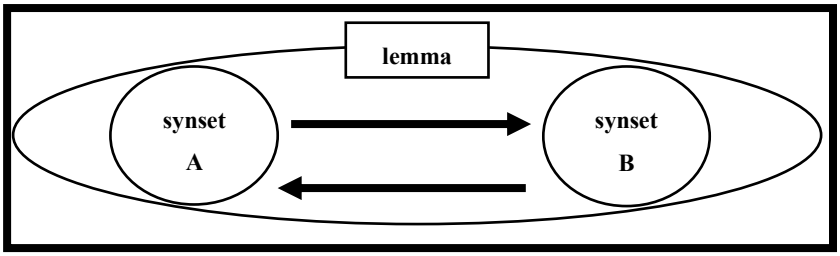

Figure 6: A conceptual image of a cross-reference structure in certain lemma

Figure 7 illustrates the cross-reference relationship between two synsets in the same lemma, almond. The synset “almond#1”, located in the upper part of Figure 7, has a semantic relationship with the synset indicated by the 8-digit synset-ID “07750586”. The semantic relation pointer “%p” input to the left of this synset-ID indicates that this semantic relation is a “part” meronym. When this synset-ID is searched in the WordNet database file, the synset “almond#2” in the lower part of Fig. 7 is extracted. The data structure of this synset “almond#2” contains the synset-ID of the synset “almond#1” as a semantic-related synset. The pointer to the semantic relation “#p” input to the left of this synset-ID indicates that this semantic relation is a “part” holonym.

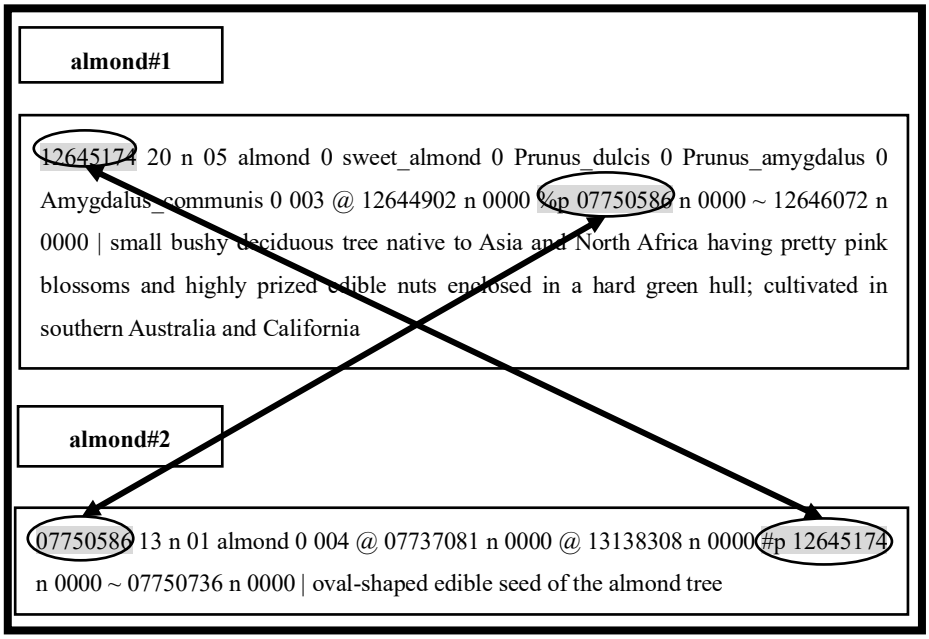

Figure 7: An example of cross-reference structures between the synset in the same lemma “almond”

Hereinbelow the metonymy defined in Section 2 and the cross-reference relationship between two synsets in the same lemma observed in the data structure of WordNet will be connected. As deduced from the review of the linguistic views in Section 2, the metonymy in this paper is a polysemy pattern based on part-whole relations. Therefore, it may be inferred from the synthesis of the views by Radden & Kövecses (1999) and Cruse (2000) that polysemy pattern structures corresponding to the metonymy will be extracted from WordNet if a cross-reference relation equivalent to a part-whole relation is found among synsets belonging under the same lemma.

In the semantic structure of WordNet, a meaning of holonym is extended to the whole of meronym. [20] In contrast, a meaning of meronym is focused on a part of holonym.[21] When holonyms and meronyms are interrelated, these two elements form a part-whole relation.[22] If this interrelationship between holonym and meronym is formed between synsets belonging under the same lemma, the structure corresponds to the metonymy in this paper.

In Figure 8, the cross-reference relation between two synsets in the same lemma is composed of holonym/meronym, which is equivalent to the part-whole relation.

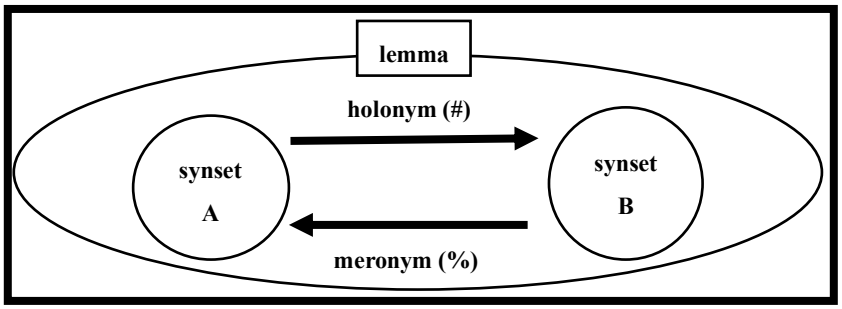

Figure 8: A conceptual image of a cross-reference structure in certain lemma composed of holonym/meronym

In the WordNet data structure, a symbol (pointer) "#" points to a holonym, and a symbol (pointer) "%" points to a meronym. These holonyms and meronyms are classified as "part" holonym/meronym (#p/%p), "stuff" holonym/ (#p/%p), "stuff" holonym/meronym (#s/%s), and "member" holonym/meronym (#m/%m). [23] The "part" holonym/meronym (#p/%p) refers to the relationship between a part and the whole within a physical structure. The "stuff" holonym/meronym (#s/%s) refers to the relationship between a material and the product made of it. The "member" holonym/meronym

[20] Miller (1991:255ff.).
[21] Ibid.
[22] Ibid.
[23] Ibid.

(#m/%m) indicates the relationship between a set as a whole and components of that set as parts. The classification of holonym and meronym is shown in Chart 1:

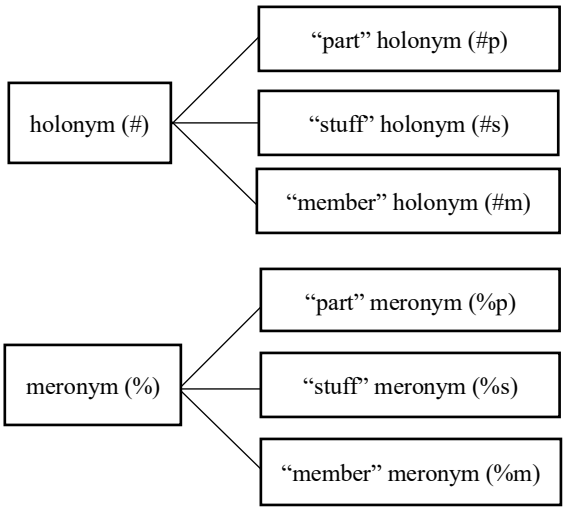

Chart 1: Classification of the holonyms/meronyms in WordNet

In order to extract the polysemy structure of metonymy from WordNet, this study extracts the cross-reference relations between the above three kinds of the holonym/meronym among synsets belonging under the same lemma.

In light of the confusion of partonomy and taxonomy, metonymy is necessarily compared with synecdoche for the identification of metonymy. Quo modo metonymy is extracted above, the structure corresponding to synecdoche can be extracted from WordNet. As deduced from the review of linguistic views in Section 2, synecdoche in this paper denotes a polysemy pattern based on the relation between genus and species, the relation between general meaning and specific one. Therefore, if a cross-reference relation equivalent to hyponymy is found between synsets belonging under the same lemma in WordNet, as the process originally oriented by Lohk et al. (2019) adopting the concept “vertical polysemy”, which is originally analyzed by Koskela (2011) and others[24], it is expected that a polysemy pattern structure corresponding to the synecdoche will be extracted.

In the semantic structure of WordNet, a meaning of hypernym is more general in the conceptual

[24] For further specification, refer to Koskela (2011), Cruse (2000:110ff.) or Horn (1984).

structure than that of hyponym.[25] Conversely, a meaning of hyponym is more specific in the conceptual structure than that of hypernym.[26] These hypernyms and hyponyms are interrelated, and the two elements form hyponymies.[27] If this interrelationship between hypernym and hyponym is formed between synsets that belong under the same lemma, the structure corresponds to synecdoche.

In order to extract the polysemy structure of synecdoche from WordNet, this study extracts the cross-reference relations composed of the hypernym/hyponym between synsets belonging under the same lemma.

The numerical distribution of the hypernyms and lexical categories (lexical names) subordinating the synsets of metonymy and synecdoche will be analyzed. This study numerically analyzes the distance of each sense that constitutes metonymy and synecdoche in the taxonomical structure of semantic relations of WordNet. These analyses are expected to realize the numerical identification of criteria for distinguishing partonomy from taxonomy.

Based on the above discussion, an algorithm for the identification of metonymy will be built in this research:

[25] Miller (1991:247ff.).
[26] ibid.
[27] In the WordNet data structure, a symbol (pointer) "@" points to a hypernym, and a symbol (pointer) "~" points to a hyponym (Miller (1991: p.247ff.)).

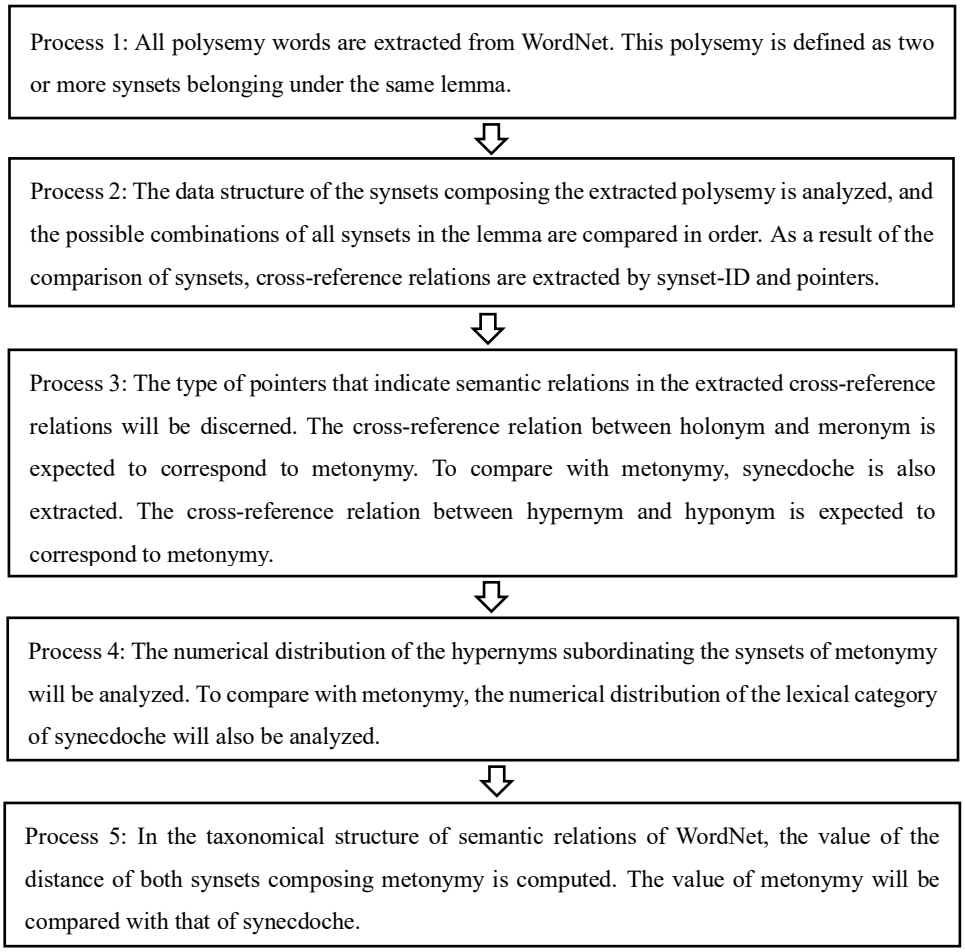

Chart 2: The algorithm for numerical identification of metonymy through WordNet

4. Numerical Distribution of Metonymy and Synecdoche in the Semantic Structure of WordNet

In this section, the extraction algorithm for polysemy structures constructed in Section 3 will be executed. The extraction results of this algorithm are compared with the classification framework of metonymy and synecdoche deduced in Section 2. Through this comparison, metonymy is identified based on the criteria of the semantic relations in WordNet.

The results extracted by the algorithm built in the previous section are output as shown in Figure 9:

”LEMMA”,“POS”,“SOURCE-DEFINITION”,“REL”,“TARGET-DEFINITION”, ”SOURCE-HYPERNYM”,”TARGET-HYPERNYM”,“SOURCE-LN”,“TARGET-LN”,“PATH-DISTANCE” (POS = Part of Speech, REL = Semantic Relations, LN = Lexical Names)

“almond”,”n”,“1: small bushy deciduous tree native to Asia and North Africa having pretty pink blossoms and highly prized edible nuts enclosed in a hard green hull; cultivated in southern Australia and California”,”%p”,”2: oval-shaped edible seed of the almond”,”tree”,“almond_tree”,“edible_nut drupe stone_fruit”,”plant”,”food”,”0.055555556”
“almond”,”n”,”2: oval-shaped edible seed of the almond tree”,”#p”,”1: small bushy deciduous tree native to Asia and North Africa having pretty pink blossoms and highly prized edible nuts enclosed in a hard green hull; cultivated in southern Australia and California”,”edible_nut drupe stone_fruit”,”almond_tree”,”food”,”plant”,”0.055555556”

Figure 9: The model and an example of the polysemy extraction results (“almond”)

The total number of results extracted by the structural analysis algorithm in this study, output in this way, is shown in the following table:

Table 1: Extraction results for each type of polysemy pattern by the algorithm

	# synsets	# polysemy pairs
“part” holonym (#p)	671	671
“part” meronym (%p)	671	
“stuff” holonym (#s)	139	139
“stuff” meronym (%s)	139	
“member” holonym (#m)	44	44
“member” meronym (%m)	44	
hypernym (@)	319	319
hyponym (~)	319	
total	2346	1173

In the following, these extraction results are verified for each type of holonym/meronym. The “part” holonym (#p) and the “part” meronym (%p) form a directly perceptible and clear part-whole relation based on the contiguity in the real world (e.g., *rocket*, see below).

“rocket”,”n”,”1: any vehicle self-propelled by a rocket engine”,”%p”,”2: a jet engine containing its own propellant and driven by reaction propulsion”,“vehicle”,”jet_engine”, “artifact”,”artifact”,”0.090909091”
“rocket”,”n”,”2: a jet engine containing its own propellant and driven by reaction propulsion”,”#p”,”1: any vehicle self-propelled by a rocket engine”,”jet_engine”,“vehicle”,“artifact”,”artifact”,”0.090909091”

As shown in Figure 10, a complete inclusionary relation, that is, a clear part-whole relation shines through the “part” holonym (#p) and the “part” meronym (%p). In a somewhat different way from this, the relationship between the “stuff” holonym (#s) and the “stuff” meronym (%s) can be divided into two structures, case (a) and case (b) in Fig. 10, depending on whether the focus is on the material or the product. In other words, in case (a), the material represented by the solid line in Fig. 10 is focused on, while the product represented by the dotted line in Fig. 10 is fading out. In this case, the “stuff” holonym (#s) as the material is focused on, and the product fading out is the “stuff” meronym (%s) (e.g., *ash*, see below).

“ash”,”n”,”2: any of various deciduous pinnate-leaved ornamental or timber trees of the genus Fraxinus”,”%s”,”3: strong elastic wood of any of various ash trees; used for furniture and tool handles and sporting goods such as baseball bats”,”tree”, “wood”, “plant”,”plant”,”0.0625”
“ash”,”n”,”3: strong elastic wood of any of various ash trees; used for furniture and tool handles and sporting goods such as baseball bats”,”#s”,”2: any of various deciduous pinnate-leaved ornamental or timber trees of the genus Fraxinus”,“wood”,”tree”,”plant”,”plant”,”0.0625”

In case (b), the opposite of case (a) happens. Thus, the product represented by the solid line in Figure 10 is focused on. On the other hand, the material represented by the dotted line in Figure 10 is fading out. In this case, the “stuff” holonym (#s) is the focused product, and the fading material is the “stuff” meronym (%s) (e.g., *adobe*, see below).

“adobe”,”n”,”1: the clay from which adobe bricks are made”,”#s”,”2: sun-dried brick; used in hot dry climates”,”clay”,”brick”,“substance”,”artifact”,”0.071428571”
“adobe,”,”n”,”2: sun-dried brick; used in hot dry climates”,”%s”,”1: the clay from which adobe bricks are made”,”brick”,”clay”,”artifact”,”substance”,”0.071428571”

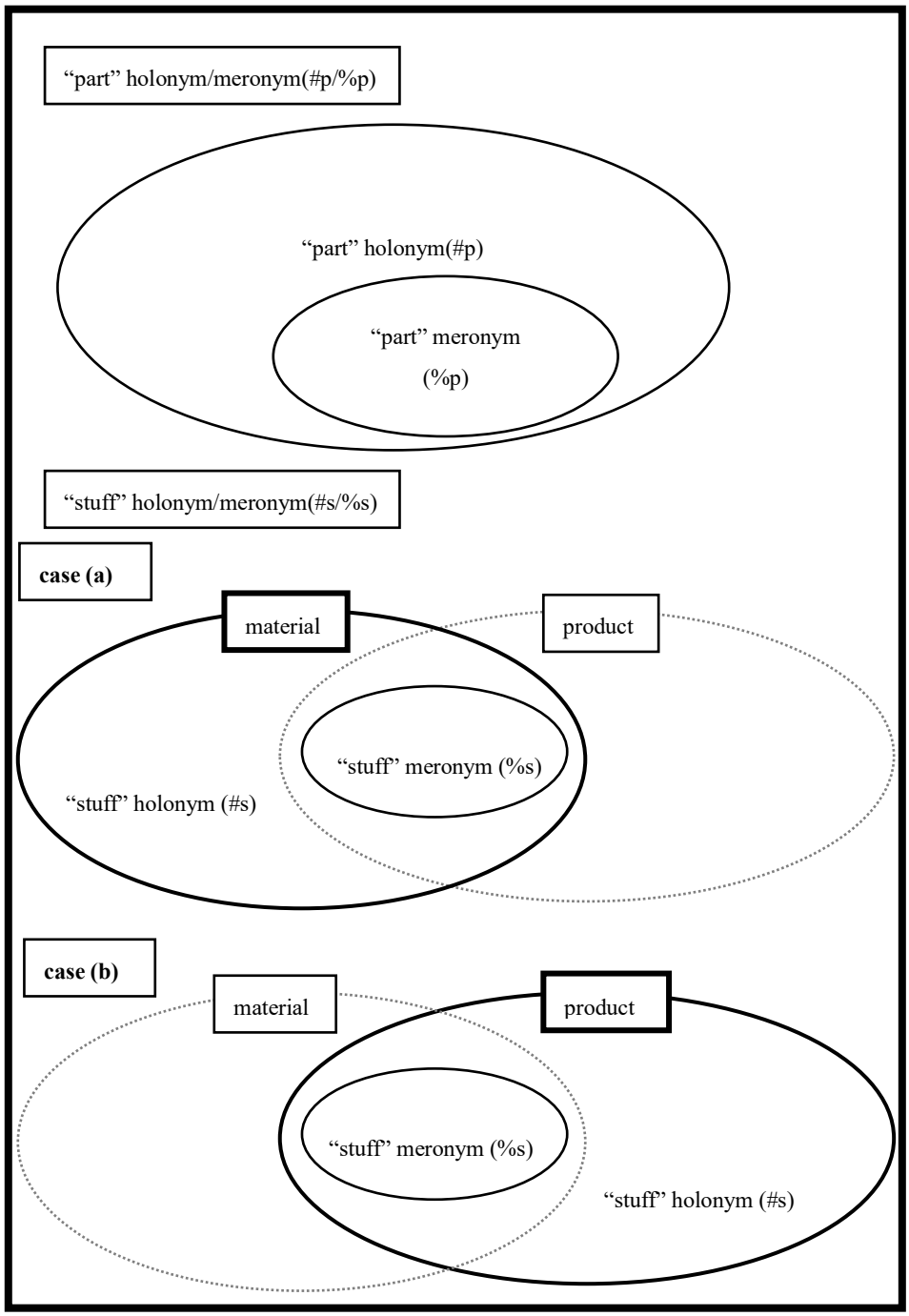

Figure 10: A conceptual image for the difference between "part" holonym/meronym (#p/%p) and "stuff" holonym/meronym (#s/%s)

Thus, in the relationship between “stuff” holonym (#s) and “stuff” meronym (%s), there are two opposite structures, case (a) and case (b). Both of these two structures satisfy the part-whole relation. In this regard, this polysemy structure can be recognized as metonymy. In addition to “part” holonym/meronym (#p/%p), those “stuff” holonym/meronym (#s/%s) can also be regarded as metonymy in this study. The numerical distribution of the hypernyms subordinating polysemy pairs composed of “part” or “stuff” holonym/meronym are shown in Table 2 below:

Table 2: The numerical distribution of hypernyms subordinating polysemy pairs composed of “part” or “stuff” holonym/meronym

hypernyms combinations of metonymical elements	**# polysemy pair**	**%**
“tree” - “fruit”	**129**	**17.46%**
“plant/flora/plant_life” - “plant_part/plant_structure”	**80**	**10.83%**
“plant/flora/plant_life” - “fruit”	**73**	**9.88%**
“animal/animate_being/beast/brute/creature/fauna”-“food/solid_food”	**72**	**9.74%**
“fish” - “seafood”	**69**	**9.34%**
“plant/flora/plant_life” - “plant_material/plant_substance”	**65**	**8.80%**
“plant/flora/plant_life” - “food/nutrient”	**64**	**8.66%**
“plant/flora/plant_life” - “food/solid_food”	**47**	**6.36%**
“artifact/artefact” - “artifact/artefact”	**42**	**5.68%**
“body_part” - “body_part”	**6**	**0.81%**
“food/nutrient” - “foodstuff/food_product”	**6**	**0.81%**
“food/nutrient” - “fruit”	**5**	**0.68%**
“material/stuff” - “instrumentality/instrumentation”	**5**	**0.68%**
“plant/flora/plant_life” - “covering natural_covering cover”	**5**	**0.68%**
“plant/flora/plant_life” - “material/stuff”	**5**	**0.68%**
others	**66**	**8.93%**
Total	**739**	**100.00%**
NONE	**71**	

Through the examination of the distribution of the hypernyms of these polysemy pairs in WordNet, it has been brought in relief the regularity that all the hypernyms subordinating polysemy pairs composed

of “part” or “stuff” holonym/meronym are directly perceptible: “tree”, “fruit”, “food”, “fish” and so on. Therefore, it can be said that these polysemy pairs composed of the “part” or the “stuff” holonym/meronym consist of directly perceptible meanings.

The “member” holonym/meronym (#m/%m) refers to the relationship between a set as a whole and its constituents as parts (e.g., *college*, see below):

> “college”,”n”,”1: the body of faculty and students of a college”,”#m”,”2: an institution of higher education created to educate and grant degrees; often a part of a university”,“body”, “educational_institution”,”group”,”group”,”0.142857143”
> “college”,”n”,”2: an institution of higher education created to educate and grant degrees; often a part of a university”,“%m”,”1: the body of faculty and students of a college”, “educational_institution”,”body”,”group”,”group”,”0.142857143”

This relation, unlike the “part” holonym/meronym (#p/%p) and the “stuff” holonym/meronym (#s/%s), does not necessarily stimulate our perception directly. Thus, this relation may be a product of our thought rather than the contiguity in the real world. Judging from the argument of the confusion of partonomy and taxonomy mentioned before, this is not necessarily equivalent to metonymy. The numerical distribution of the hypernyms subordinating polysemy pairs composed of “member” holonym/meronym are shown in Table 3 below:

Table 3: The numerical distribution of the hypernyms subordinating polysemy pairs composed of “member” holonym/meronym

hypernyms combinations of metonymical elements	**# polysemy pairs**	**%**
“person/individual/someone/somebody/mortal/soul” - “group/grouping”	**22**	**53.66%**
“plant/flora/plant_life” - “genus”	**13**	**31.71%**
others	**6**	**14.63%**
Total	**41**	**100.00%**
NONE	**3**	

The majority of the “member” holonym/meronym (53.66%) is composed of hypernyms “person/individual” and “group”. Indeed, groups such as institutions or organizations consist of individuals. However, they are not intrinsic or physical structures in the real world. In other words, physical contiguity structures of human groups can be simultaneous and constant, not necessarily in the real world but probably in our thought. Therefore, it can be said that the polysemy pairs composed of this type of the

“member” holonyms/meronyms whose hypernyms are “person/individual” and “group” are based on the contiguity of the structures in the concept rather than on that in the real world.

Most of the remainder of “member” holonym/meronym is composed of hypernyms “plant” and “genus”. The “plants” are probably categorized into each “genus” on the basis of perceptible factors in the real world (e.g., *petunia*, see below):

> “petunia”,” n”,”1: any of numerous tropical herbs having fluted funnel-shaped flowers”,”#m”,”2: annual or perennial herbs or shrubs of tropical South America”, “flower”,”asterid_dicot_genus”,”plant”,”plant”,”0.05”
> “petunia”,”n”,”2: annual or perennial herbs or shrubs of tropical South America”, “%m”,”1: any of numerous tropical herbs having fluted funnel-shaped flowers”,”asterid_dicot_genus”, ”flower”,“plant”,”plant”,”0.05”

These relationships between the “genera” and the “plants” can be considered as taxonomical relationships between genus and species, as witness the fact that hypernym of the very literal “genus” is the very literal “taxonomic_group taxonomic_category taxon”. Therefore, it can be said that the polysemy pairs composed of this type of the “member” holonyms/meronyms whose hypernyms are the “plants” and “genera” are based on the category relationship rather than the contiguity.

As analyzed above, there are two types of polysemy pairs composed of “member” holonym/meronym. The one is based on the contiguity in the concept and the other on the category relationship in the real world. For the sake of distinction, the former is classified as “member 1” and the latter as “member 2” in the following.

The polysemy pairs composed of hypernym/hyponym corresponds to synecdoche as taxonomy based on a category relationship of genus and species, an interrelationship of relatively general and specific meanings. (e.g., *squad*; *record*, see below):

> “squad”,”n”,”2: a cooperative unit (especially in sports)”,”~”,”3: a small squad of policemen trained to deal with a particular kind of crime”,”unit social_unit”,”team squad”,”group”, ”group”,”0.5”
> “squad”,”n”,”3: a small squad of policemen trained to deal with a particular kind of crim e”,”@”,”2: a cooperative unit (especially in sports)”,”team squad”,”unit social_unit”,”group”,” group”,”0.5”

“record”,”v”,”1: make a record of; set down in permanent form”,”~”,”2: register electronically”,”save preserve”,”record enter put_down”,”communication”,”communication”,”0.5”
“record”,”v”,”2: register electronically”,”@”,”1: make a record of; set down in permanent form”,“record enter put_down”,“save preserve”,”communication”,”communication”,“0.5”

As shown in the above-mentioned examples, these polysemy pairs form the category relationship in the concept. Although both of the senses in synecdoche include the perceptible elements, there is no explicitness as to whether or not they are connected with each other a priori through any perceptual elements inherent in the real world as their common bases. In other words, the common bases of meanings in synecdoche are far from perceptible and they are probably synthesized a posteriori through our conceptual thought. This way of dichotomizing hyponymy is concurring with the view of Wierzbicka (1984) as to the point of the perceptibility, although she dealt with only nouns. However, the criterion proposed here is different from what she pointed out in that it does not necessarily attach importance to the pictoriality or the perceptibility of each sense as the criterion for the dichotomy. It is the perceptibility of the common basis interrelating both senses of polysemy that should be focused on for the dichotomy. There are quite a few examples corresponding to this type of polysemy pairs:

Table 4: The numerical distribution of the lexical categories subordinating polysemy pairs composed of hypernym/hyponym based on the structure in the concept

lexical categories of synecdoche elements	# polysemy pairs	%
"change" - "change"	31	13.72%
"communication" - "communication"	30	13.27%
"social" - "social"	20	8.85%
"stative" - "stative"	19	8.41%
"cognition" - "cognition"	18	7.96%
"possession" - "possession"	15	6.64%
"creation" - "creation"	14	6.19%
"emotion" - "emotion"	9	3.98%
"change" - "creation"	5	2.21%
"communication" - "social"	5	2.21%
"competition" - "competition"	5	2.21%
"change" - "contact"	4	1.77%
"motion" - "social"	4	1.77%
“body” - “body”	4	1.77%

"cognition" - "communication"	**3**	**1.33%**
"contact" - "social"	**3**	**1.33%**
“group” - “group”	**3**	**1.33%**
others	**34**	**15.04%**
Total	**226**	**100.00%**

As shown in Table 4 above, the majority of the examples corresponding to synecdoche (70.85%) are based on the structure in the concept. Indeed, on the one hand, it is a natural consequence that there are many examples based on the category relationship in the concept in the polysemy pairs composed of hypernym/hyponym. However, on the other hand, there is also a considerable number of examples based on the category relationship in the real world in the polysemy pairs composed of hypernym/hyponym (e.g., *oil*; *rise*, see below):

“oil”,”n”,”1: a slippery or viscous liquid or liquefiable substance not miscible with water”, “~”,”3: a dark oil consisting mainly of hydrocarbons”, ”lipid lipide lipoid”, ”oil fossil_fue l”, “substance”, ”substance”, ”0.5”
“oil”,”n”,”3: a dark oil consisting mainly of hydrocarbons”,”@”,”1: a slippery or viscous l iquid or liquefiable substance not miscible with water”, “oil fossil_fuel”, “lipid lipide lipoi d”, “substance”, “substance”, “0.5”

“rise”,”v”,”1: move upward”,”~”,”16: come up, of celestial bodies”,”travel go move locomote”,“rise lift arise move_up go_up come_up uprise”,”motion”,”motion”,”0.5”
“rise”,”v”,”16: come up, of celestial bodies”,”@”,”1: move upward”,”rise lift arise move_up go_up come_up uprise”,”travel go move locomote”,”motion”,”motion”,”0.5”

As shown in the above-mentioned examples, these polysemy pairs form the category relationship on the basis of perceptual elements in the real world. The number and the frequency of the examples composed of the hypernyms/hyponyms based on the structure in the real world are far from ignorable as shown in Table 5 below (93 pairs; 29.15%):

Table 5: The numerical distribution of the lexical categories subordinating polysemy pairs composed of hypernym/hyponym based on the structure in the real world

lexical categories of synecdoche elements	**# polysemy pairs**	**%**
"motion" - "motion"	**32**	**34.41%**
"contact" - "contact"	**23**	**24.73%**
"perception" - "perception"	**12**	**12.90%**

"contact" - "motion"	**7**	**7.53%**
"artifact" - "artifact"	**2**	**2.15%**
“person” - “person”	**2**	**2.15%**
“plant” - “plant”	**2**	**2.15%**
others	**13**	**13.98%**
Total	**93**	**100.00%**

Through the examination of the distribution of the hypernyms of these polysemy pairs in WordNet, it has been brought in relief the regularity that an unignorable number of the lexical categories subordinating polysemy pairs composed of hypernym/hyponym are directly perceptible: “motion”, “contact”, “plant”, “person” and so on.

As the above-mentioned analyses, there are two types of polysemy pairs composed of hypernym/hyponym. The one is based on the category relationship in the concept and the other on that in the real world. For the sake of distinction, the former is classified as “synecdoche 1” and the latter as “synecdoche 2” in the following.

The distribution of metonymy and synecdoche in WordNet does not necessarily correspond to the classification framework of metonymy and synecdoche deduced in Section 2, which reflects the previous studies on the confusion of partonomy and taxonomy. It is often said that the exception proves the rule. True, the saying is applicable to this case. These exceptions in the distribution may prove the rule of the distinction between partonomy and taxonomy. However, this classification framework leaves yet something to be desired as the balance of evidence from WordNet. In previous views on the confusion of partonomy and taxonomy, several dichotomous structures are entangled with one another. In this type of classification framework of metonymy and synecdoche, as if metonymy could be generated only from the structures of the real world and synecdoche only from the structures in the concept. From the WordNet-driven point of view, that is far from the fact of the polysemic distribution. The majority of the polysemy pairs composed of the “member” holonym/meronym are based on the structures in the concept and most of the remainder have been distributed even in synecdoche. The polysemy pairs of synecdoche are also generated on the basis of the category relationships in the concept. Previous studies focused on the distinction between metonymy and synecdoche insomuch that they placed a special emphasis on the dichotomous polarization of the classification framework. The spillover should be subsumed under a comprehensive classification framework. Through the analysis of metonymy and synecdoche in WordNet, this type of classification framework is no longer comprehensive. I recompose the classification framework in respect of the numerical distribution of metonymy and synecdoche in WordNet:

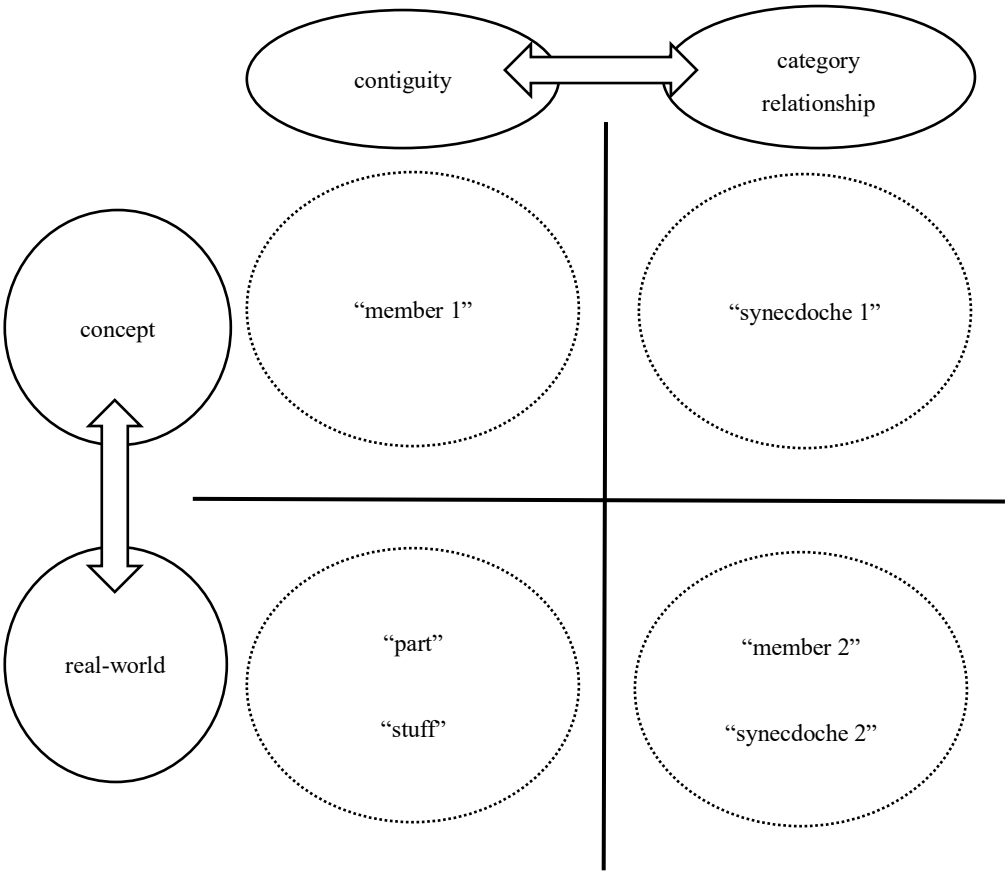

Figure 11: Classification framework of polysemy through the consideration to the distribution of metonymy and synecdoche in WordNet

I propose a biaxial and two-dimensional classification framework of polysemy based on inclusionary relationships. The distribution of metonymy and synecdoche in WordNet is laid out in this recomposed classification framework. In the recomposed classification framework, the polysemy pairs composed of the “part”, the “stuff” and the “member 1” are classified into the metonymy based on the contiguity. The polysemy pairs composed of the “synecdoche 1”, the “synecdoche 2” and the “member 2” are classified into the synecdoche based on the category relationship. Metonymy and synecdoche are appropriately arranged by the standards of the axes in the oppositions inferable from the analyses of WordNet. This recomposed classification framework disentangles us from the complexity left in the interrelationship between metonymy and synecdoche, because it includes metonymy and synecdoche in an obscure, or rather latent spectrum by reason of the dichotomous polarization.

The numerical distribution of the lexical categories (lexical names) subordinating the synsets composing metonymy or synecdoche will be analyzed:

Table 6: Results of classification by lexical categories

	Metonymy		Synecdoche	
	# polysemy pairs	%	# polysemy pairs	%
Synsets in certain same lexical category (lexical names)	281	33.53%	270	80.60%
Synsets in different lexical categories (lexical names)	557	66.47%	65	19.40%
Total	838	100%	335	100%

In the majority of cases, the synsets that compose the polysemy pairs of metonymy are subordinate to mutually different lexical categories (66.47%). On the other hand, the synsets that compose those of synecdoche are subordinate to the same lexical category for the most part (80.60%). That is, the following hypothesis can be deduced: in metonymy, meanings subordinate to different categories are associated with each other by the contiguity. On the other hand, in synecdoche, meanings that are relatively unrelated to each other in respect of the contiguity are associated with each other based on the same category.

The similarity rate represents the proximity of the taxonomical distance of the synsets in the semantic relation structure of WordNet.[28] These rates between synsets that compose metonymy and synecdoche enable the numerical identification of the criteria for the classification of the two:

[28] One of the python libraries, "nltk.corpus.wordnet", is used for this computation (nltk=NLTK (Natural Language Tool Kit))(Bird et al. (2009:70ff.)) The rate of similarity used in this study is path_similarity. For details on the computation of path_similarity, please refer to the following description:" …path_similarity assigns a score in the range 0–1 based on the shortest path that connects the concepts in the hypernym hierarchy (-1 is returned in those cases where a path cannot be found). Comparing a synset with itself will return 1." (Bird et al. (2009:72)). (URL: https://www.nltk.org/book/ch02.html)

Table 7: The taxonomical proximity of metonymy and synecdoche in WordNet

	Metonymy	Synecdoche
Avg. of Similarity Rate	0.073001056	0.478648612

The similarity rate of synecdoche is approx. 0.479. In contrast, the total average of the similarity rate of metonymy is less than 0.1 (approx. 0.073). In other words, this indicates that the distance in the taxonomical structure tends to be longer than a certain level between the synsets that compose the polysemy pairs of metonymy. That is, the following hypothesis can be deduced: the two synsets that compose the metonymy are perceived as a unit because of the contiguity, without the taxonomical proximity. Conversely, the two synsets that compose synecdoche are recognized as a unit in virtue of certain proximity in the taxonomical category, without the basis of the contiguity.

5. Conclusion

In this study, metonymy and synecdoche have been extracted from the semantic structure of WordNet. As a result of the extraction, a total of 1173 pairs of polysemy pattern structures have been output. The numerical distribution of the hypernyms subordinating the polysemy pairs of metonymy and synecdoche has been analyzed. The conceptual distance between the synsets of metonymy in the structure of semantic relations in WordNet has been numerically identified to provide the criteria of metonymy. The taxonomical distance of synecdoche is close (similarity rate approx. = 0.479). In contrast, the taxonomical distance of metonymy is quite distant on average (similarity rate approx. = 0.073).

Through the analysis of the numerical distribution of the lexical categories and the comparison of the taxonomical distances, the following hypothesis can be deduced: both of the senses which are subordinate to different categories and also have a relatively distant taxonomical distance are united in metonymy by the contiguity. In synecdoche, in contrast, unrelated meanings in respect of the contiguity are associated with each other in the same category based on the proximity of their taxonomical distance. This hypothesis could reinforce the objective basis for the classification of metonymy.

Through the analysis of the numerical distribution of metonymy and synecdoche in WordNet, I have recomposed the classification framework of metonymy and synecdoche. This recomposed classification framework will disentangle us from the complexity of metonymy and synecdoche in an obscure, or rather latent spectrum.

In this study, metonymy and synecdoche have been numerically identified in English WordNet (Princeton University). The extraction of polysemy structures from WordNet should be multilingually

expanded. In the future, further cross-linguistic regularities of polysemy are expected to be discovered through the WordNet-driven approach.

References

Bird, Steven, Ewan Klein and Edward Loper. 2009. *Natural Language Processing with Python*. Farnham: O'Reilly.

Barque, Lucie & François-Régis Chaumartin. 2009. Regular Polysemy in Wordnet. *JLCL* 24 (2) :5–18.

Buitelaar, Paul. 1998. *Corelex: Systematic Polysemy and Underspecification.* Ph. D. thesis, Brandeis University, Department of Computer Science.

Cruse, David. Allan. 2000. *Meaning in Language*. Oxford: Oxford University Press.

Dumarsais, César. C. 1757. *Des Tropes*. Paris: Chez David.

Fellbaum, Christiane. 1998. *WordNet: An Electronic Lexical Database*. Cambridge: MIT Press.

Freihat, Abed Alhakim, Fausto Giunchiglia and Biswanath Dutta. 2013. Regular Polysemy in Wordnet and Pattern Based Approach. *International Journal on Advances in Intelligent Systems* 6: 199-212.

le groupe µ. 1970. *Rhétorique Générale*, Paris: Larousse.

Horn, Laurence. R. 1984. Toward a New Taxonomy for Pragmatic Inference: Q-based and R-based Implicature. In Deborah Schiffrin (ed.) *Meaning, Form, and Use in Context: Linguistic Applications*, 11-42. Washington: Georgetown University Press.

Jakobson, Roman. 1956. Two Aspects of Language and Two Types of Aphasic Disturbances. In: Roman Jakobson and Morris Halle (eds.), *Fundamentals of language*, 53-82. the Hague: Mouton de Gruyter.

Koskela, Anu. 2011. Metonymy, Category Broadening and Narrowing, and Vertical Polysemy. In Réka Benczes, Antonio Barcelona, and Francisco José Ruiz de Mendoza Ibáñez (eds.), *Defining Metonymy in Cognitive Linguistics: Towards a Consensus View*, 125-146. Amsterdam and Philadelphia: John Benjamins.

Lakoff, George, and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: London: University of Chicago Press.

Lohk, Ahti, Heili Orav, Kadri Vare, Francis Bond and Rasmus Vaik. 2019. New Polysemy Structures in Wordnets Induced by Vertical Polysemy. *Proceedings of the 10th Global Wordnet Conference (GWC2019).* Wroclaw. 394-403.

Lyons, John. 1977. *Semantics*. Cambridge: Cambridge University Press.

Miller, George A. 1995. WordNet: A Lexical Database for English. *Communications of the ACM* 38(11): 39-41.

Miller, George A. 1991. Nouns in WordNet: A Lexical Inheritance System. *International Journal of Lexicography* 3 (4): 245–264.

Miller, George A, Richard Beckwith, Christiane Fellbaum, Derek Gross, and Katherine J. Miller. 1991. Introduction to WordNet: an online lexical database. *International Journal of Lexicography* 3(4): 235–244.

Nerlich, Brigitte. & David D. Clarke. 1999. Synecdoche as a Cognitive and Communicative Strategy. In: Blank, Andreas. & Koch, Peter. (eds.), *Historical Semantics and Cognition*, 197-214. Berlin and New York: Mouton de Gruyter.

Peters, Wim. 2004. *Detection and Characterization of Figurative Language Use in Wordnet*. Ph. D. thesis, Natural Language Processing Group, Department of Computer Science, University of Sheffield.

Princeton University. 2010. *About WordNet*. Princeton University.

Radden, Günter & Zoltán Kövecses. 1999. Towards a Theory of Metonymy. In: Panther, Klaus-Uwe, and Günter Radden. (eds.), *Metonymy in Language and Thought*, 17-30. Amsterdam: John Benjamins.

Sato, Nobuo. 1978. *Rhetoric-Kankaku (The Sense of Rhetoric)*. Tokyo: Koudansha.

Seto, Ken-ichi. 2003. Metonymic Polysemy and its Place in Meaning Extension. In Brigitte Nerlich, Zazie Todd, Vimala Herman and David Clarke (eds.) *Polysemy: Flexible Patterns of Meaning in Mind and Language,* 195-214. Berlin: Mouton de Gruyter.

Seto, Ken-ichi. 1999. Distinguishing Metonymy from Synecdoche. In: Panther, Klaus-Uwe, and Günter Radden. (eds.), *Metonymy in Language and Thought*, 91-120. Amsterdam: John Benjamins.

Thomas, Robert. 1894. Über die Möglichkeiten des Bedeutungswandels I, *Bayerische Blätter für das Gymnasialschulwesen* 30.

Tversky, Barbara. 1990. Where Partonomies and Taxonomies Meet. In Savas L. Tsohatzidis (ed.), *Meanings and Prototypes: Studies in Linguistic Categorization,* 334-344. London: Routledge.

Ullmann, Stephen. 1962. *Semantics: An Introduction to the Science of Meaning*. Oxford: Blackwell.

Wierzbicka, Anna. 1984. Apples Are Not a “kind of fruit”: The Semantics of Human Categorization. *American Ethnologist* 11: 313–328.

メトニミーとシネクドキの分類枠組みの再構築

―WordNet 駆動型アプローチ―

鈴木　一存

言語研究史上、メトニミーに関して多数の見解が提示されてきた。その中でも、メトニミーとシネクドキの関係性の同定は複雑な様相を呈しており、研究者間における合意は依然として困難である。本研究は、メトニミーを定位する客観的基準を多角的視点から構築すべく、主にメトニミーとシネクドキの関係性を考慮する。両者を対照し、両者の定位に際して枢要な問題となるパートノミーとタクソノミーの峻別を観点の中心に据える。多義研究の客観的基準を包括的に補強すべく、意味関係を考慮した分析を行う。語彙データベース WordNet に格納されている意味関係の構造を基準とし、メトニミーとシネクドキに相当する多義構造を抽出する。WordNet の体系的構造を活用し、メトニミーを WordNet における数的分布に基づいて客観的に定位する。分析結果に基づき、メトニミーと連関を成す多義分類範疇の再構成を目指す。